

RESUME

Patricia Donovan
8080 Madison Avenue, Suite 201A
Fair Oaks, CA 95628
916-967-2804

PROFESSIONAL BACKGROUND:

1988 - Present **NONENDO EXCELLENCE TECHNOLOGY** - Problem solving, decision making and planning processes. Workshops targetted towards school children, drug users, gang members and halfway house prisoners in transition back into society.

1988 - Present **THE AMERICAN DREAM PROJECT** - Program to bring homeless population back to self sufficiency.

1988 - Present **POLITICAL PUNCHES** - Political stickers.

1987 - Present **POSSIBILITY PLUS** - Smokers' Club.

1987 - Present **CITIZENS FOR A THINKING AMERICA** - Problem solving, decision making and implementation processes for public lawmakers.

1986 - Present **DO WHAT YOU LOVE + BE HEALTHY** - Workshop.

1986 - Present **SMOKE + BE HEALTHY** - Workshop.

1983 - Present **ORGANIZATIONAL EXCELLENCE GROUP** - Organizational R & D, consulting and workshops.

1980 - Present **PAT DONOVAN & ASSOCIATES** - Executive search.

1979 - 1980 **MANAGEMENT RECRUITERS** - Executive recruiter.

1976 - 1979 **KEPNER-TREGOE, INC.** - Product Manager and consultant for organizational development think tank.

1973 - 1976 **CONTROL DATA CORPORATION** - Sales executive for computer services division.

1971 - 1973 **ALTO-TRONICS CORPORATION** - Sales executive for printed circuit board manufacturer.

THE NEW RATIONAL MANAGER

Charles H. **KEPNER**
Benjamin B. **TREGOE**

Copyright © 1981 by Kepner-Tregoe, Inc.
Princeton NJ USA
Library of Congress Catalog Card Number: 80-84367
All rights reserved.
Printed in the United States of America.
This book, or parts thereof, may not be reproduced
in any form without written permission of the publisher,
except in the case of brief quotations embodied in
critical articles and reviews.

For information address Princeton Research Press
P.O. Box 704, Research Road, Princeton, New Jersey 08540

Library of Congress Catalog Card No.: 80-84367
Tregoe, Benjamin B. and Charles H. Kepner
The New Rational Manager.
Princeton, N.J.: Kepner-Tregoe, Inc.
224 p.
8101 801017

Book and jacket design: Pam Forde Graphics

CONTENTS

INTRODUCTION

CHAPTER 1 The Problem

CHAPTER 2 The Problem

CHAPTER 3 The Use

CHAPTER 4 Decision

CHAPTER 5 The Use

CHAPTER 6 Potential

CHAPTER 7 Situation

CHAPTER 8 Management

CHAPTER 9 Installing an Organization

INDEX 22

INTRODUCTION

In 1957 we were doing social science research with the RAND Corporation. In the course of our work, we witnessed a number of decisions in government agencies and in private industry that ranged in quality from questionable to catastrophic. Wondering how such poor decisions ever came to be made, we decided to look into their histories. We found that most of these decisions were bad because certain important pieces of available information had been ignored, discounted, or given insufficient attention. We concluded that the *process* of gathering and organizing information for decision making needed improvement. A more *rational approach*—one devised to collect and make the best use of all important pieces of information—would be a vast improvement over the countless disorderly approaches we had observed.

RAND was not interested in our pursuing this line of inquiry, so we left the organization and set up our own company. Kepner-Tregoe and Associates consisted of two people with a few half-formed ideas and a pint-sized office in a garage. We studied the literature on decision making, or “problem solving” as it was termed in those days, and found little that was helpful. We then went into the field to talk with and observe real managers at work—and we began to learn.

We found that “problem solving” was not a very useful term: There was no single mental process a manager could adopt to focus on all situations that might arise. In practice, the most effective managers we observed used variations of four distinct routines or patterns of thinking, in handling problems and decisions. In time we would refine and consolidate these routines into four rational processes for managing.

The first basic routine concerned organizational skills.

The best managers—that is, those considered by other managers as most effective and successful—approached the job of managing in an orderly way. They asked pertinent questions, quickly recognizing and isolating situations of current or potential importance for closer scrutiny. They set priorities quickly and accurately. They knew when and how to delegate authority while retaining an appropriate degree of control.

The less effective managers we observed did not have these organizational skills. They tended to name and rank priorities according to the crisis of the moment or to their superiors' most recent directives. They were not sure of when to delegate activities or what degree of control to maintain once they had done so. Their lack of control was sometimes justified as "flexibility" and often defended as the antithesis of "rigidity."

Even at this early point in our observations, we saw a definite correlation between the level of a manager's organizational skills (including those needed to handle everyday details) and his or her accomplishment in the more visible activities of problem solving and decision making. The success of the play, more often than not, was dependent upon the setting of the stage.

The most effective managers were also the best investigators—a characteristic of their second basic routine. From the announcement of a problem until its resolution, they appeared to follow a clear formula in both the orderly sequence and the quality of their questions and actions. In fact, when something went wrong, without a ready explanation, these managers asked remarkably similar questions to determine whether available information was relevant or irrelevant, important or trivial, critical or marginally useful. Since the same information, in the hands of different but equally experienced and intelligent managers, might result in distinctly different results, it was evident that successful problem solving involved more than the availability of information. *Equally critical was the quality of logic applied to that information.*

A third basic routine concerned decision making—a process requiring a pattern of thinking totally unlike that used in problem solving. On the one hand a problem exists when something has gone wrong. To solve it we must understand why it has gone wrong. Only then can we take appropriate action. A decision is required, however, when we are faced with alternative courses of action. To make a good choice, we must understand all the factors that must be satisfied. In our

field study, once we made this clear distinction between the two processes, we recognized why "problem solving"—describing "what the manager does"—had been such a misleading, catch-all term: It did not distinguish between problem solving and the very different process of decision making.

If the two processes had anything in common, it was that the more effective managers tended to ask the same kinds of questions in approaching and making decisions. They may have expressed themselves in individual ways, but the similarities were remarkable. Had they discovered these sequences because they were more capable managers? Or was their effectiveness a consequence of a natural tendency to think and act in these sequences? Whatever the answer may be, the result was an optimal sequence of questions and activities that led to better-than-average problem solving and decision making.

A fourth routine we observed protected the product of the manager's actions. Once a problem had been solved or once a decision had been made, the effective manager went the extra mile to ensure that the problem would stay at bay, that the decision would remain successful. Precise techniques varied from one individual to another, but similarities in approach outnumbered differences. There was a clear-cut best way of troubleshooting the future, and it could be described step by step.

From our observations, we refined the best techniques and routines used by these successful managers into a body of four rational processes for effective management, and we began to teach what we had learned. We taught managers how to gather and use information for problem solving and decision making. To create learning vehicles, we used fictionalized accounts of actual events, problems, and decisions. For good reason the resulting cases had the ring of truth.

We invented the Apex Company, which was beset by perplexities, irritations, and disasters borrowed from companies we had visited. The first group of managers we trained worked through these cases, just as managers do in our programs today. They began by applying their own approaches for understanding, resolving, or reaching a recommendation about each test situation. Then the ideas of rational process were introduced, and the managers restudied the cases to determine how nearly their own techniques resembled Kepner-Tregoe techniques—the embodiment of thousands of hours of observing *what worked best for successful managers*. How did

their own investigative techniques compare with these? Their approaches to decision making? Their methods for setting priorities? The comparisons went on to include all of the major, critical functions of managing.

Using our techniques, the managers we trained improved their use of information, enabling them to move directly to the resolution of their own problems and decisions. Groups of managers, similarly instructed, worked together more efficiently than ever because they had been given a common language and common approaches to use on shared tasks. The resultant savings could be measured and documented.

By this time we had a name for our program: we called it *rational management*. Today the vast majority of people who learn to use rational process are trained within their own organizations by line managers who have been prepared by Kepner-Tregoe. These Program Leaders introduce and maintain the ideas and methods we have described. They often function in addition as internal consultants to their own organizations, lending their expertise with rational processes.

The programs they teach have not changed much over the years *because the elements of problem solving and decision making do not change*. Only the situations change—the contents upon which a rational process is focused. Since it is the *how* that concerns us, not the *what* and *why* of a situation, any necessary modifications and alterations involve only the expansion of basic principles of the processes themselves. Despite increasing complexity and proliferation of information, the stability of the process continues to create its obvious benefits.

Commanding systematic techniques and specific lines of inquiry and activity, the effective manager is secure in knowing that all necessary questions are being asked, all critical information considered, and all bases covered. This consistency of approach means that one manager can study another's Kepner-Tregoe analysis at any point in its formulation and pick up its thread immediately.

From this condition of security comes the freedom for the manager to work imaginatively and creatively in pursuit of the resolution, choice, or plan that is not only safe and correct, but perhaps unusual or outstanding as well.

• • •

Finally, a word about the objectives of this book. Our intention is to make the clearest possible statement about how and why

the rational processes work, to make suggestions for maximizing their effectiveness, and to show what our clients have achieved through their original and imaginative uses of the processes. At the same time we will explain the conditions needed to support the kinds of organization-wide programs that have grown so tremendously since we wrote *The Rational Manager* in 1965.

In keeping with the dictum that has well served both our clients and Kepner-Tregoe, all examples that appear in this book reflect the true experiences of active managers at work in real organizations.

CHAPTER 1

The Premises of Rational Management

Introduction:

The Search for Organizational Effectiveness

The organization is one of mankind's all-time great inventions. An organization is intended to operate as one unit, with all its parts in efficient coordination. But too often it does not. The parts operate at disparate levels of efficiency, or they overlap, or they work against one another's best interests—therefore against the best interests of the organization as a whole. There is misunderstanding and miscommunication, sometimes by accident and sometimes not. Things get done, progress is made. But not enough of the right things get done as well as they should. Progress, however it is defined, does not meet expectations.

The search has been on for many years to find ways of improving organizational effectiveness. Everyone agrees that there is room for improvement, that the organization as we know it is not perfect. Failure of the organization to perform as a functional unit limits full realization of its potential. What to do about it and how to improve the organization to make it more productive and efficient are subjects of great disagreement.

In 1965 we wrote *The Rational Manager*. In that book we described the concepts and techniques we had developed for using information in problem solving, decision making, and planning for the future. During the period before and after 1965, we conducted week-long workshops for twenty or so executives at a time, offering intensive training in the use of these concepts and techniques. How the executives would apply what they had learned when they returned to their jobs was left largely up to them. Nearly everyone left the workshop determined to put the new ideas to work.

Not surprisingly, results were better in the organizations that promoted and encouraged the continuing use of these ideas: Where there was little or no encouragement to use the ideas, where there were few or no other people who also had been exposed to them, their use dwindled.

Organizations recognized these facts. "Show us how to use these ideas on a team basis" became a familiar refrain. Since the mid-1960s, we have learned a great deal about the ways in which our concepts and techniques can be used on a shared basis by the members of an organization in a common approach to addressing the tasks of problem solving, decision making, and planning. We have learned how to help our clients establish the teamwork they have come to value at least as highly as discrete management skills. From these clients we have learned what works and what does not. This book, then, has grown out of the fifteen years of experience we and they have amassed since the writing of *The Rational Manager*—fifteen years of research, trial, error, and innovation based on what they have told us they want and need.

The Group and the Team

When interacting in a common cause, people can become a cohesive group. Understanding one another as individuals, being consciously sensitive to one another, and knowing how to adapt to individual peculiarities are what make a functioning group that will hold together. Common regard and the psychological benefits that group members derive from the association make group activity desirable and reasonable to achieve. Such a group, however, is not a team.

A team is built primarily on the technical capabilities of its members working in pursuit of specific goals, only secondarily on attraction among the members as individuals. The members

of a team must be able to tolerate one another enough to work closely together. Beyond this, all the members must be committed to a common goal and the same set of procedures for achieving that goal.

An athletic team does not win a game because the members like to be together. It wins because it plays smart, knows how to play the game better than the opposition, avoids unnecessary errors, and pulls together as a coordinated unit. Camaraderie may grow out of mutual respect for one another's abilities, but this is usually the result, not the purpose, of the team. Most certainly it is not the mechanism that makes the team succeed. The overall goal of a team is to win, and every member keeps this firmly in mind. But when you analyze *how* a game is won, you discover that it happens because all the players know what to do and how to coordinate their efforts.

Building a Management Team

Consider now the successful management team, so fervently sought after. The members are specialists in all required areas of expertise, with unique contributions to make by virtue of unique experiences and knowledge. They are necessarily different sorts of people: Here is the entrepreneur with an aggressive, driving nature and quick insights; the financial expert, with a measuring kind of intelligence and a finely developed ability to move patiently while being pushed; the sales and marketing executive, with unbounded enthusiasm and, sometimes, unbounded impatience; the director of research and development, able to control the balance between the feasible and the desirable; and the production manager, motivated chiefly by the realities of what it takes each day to get the product out the back door. All these men and women were hired because they were different and had different things to offer. They might not choose each other's company for a weekend trip, but given common organizational goals to work toward and a method for coordinating their efforts, they can become an unbeatable management team.

What kind of method for coordinating their efforts? One consisting of simple, common, sensible guidelines and procedures expressed in a commonly understood language: guidelines and procedures that bridge the differences within the team and its individual functions, guidelines and procedures the team can use jointly to carry out responsibilities without

inhibiting individual contributions or adding new, unessential tasks.

Just as you must give the members of an athletic team routines and techniques that will coordinate their individual abilities in order to win the game, you must give a management team common guidelines and procedures for gathering, sharing, and using information to solve problems, make decisions, and safeguard the organization's future. Now extend the analogy a bit further. Sports rise above local language and culture. A Brazilian soccer player can play the game in any country. He can move from one team to another because the rules are international and transcultural. The skills of good team-playing are transferable in sports, and so it is in management. A competent manager can be a member of many teams, contributing wherever there is a need for his or her skills and experience, an active partner in the coordinated activity that makes an organization go.

One of our clients, a large commodity-trading corporation with operations in twenty countries, faced a series of difficult decisions. Should the company continue to rent storage and handling facilities in the Port of Antwerp or move to some other location in Europe? If the company were to seek another location, where? Once a location had been agreed upon, how should the company operate it? Build new facilities? Rent existing ones? Form a joint venture with someone having such facilities? Once the type of operation was decided, what would be the best way to communicate and sell the recommendation to all the others involved? How would foreign exchange, time and cost of shipping, and sales and marketing considerations be integrated into this decision?

A task force of executives from five nations convened in Europe. They were from different organizational levels, with different kinds of expertise and different native tongues. Many of them had never worked together—some had never even met—but all of them were familiar with Kepner-Tregoe decision-making concepts. Although some of the managers had originally learned the concepts in French, German, or Italian, everyone was fluent enough in English to use that as the common language.

Over the next two days they worked their way through the entire set of decisions. "They knew where to start, what questions to ask, what to do," said the Vice President for International Operations. "They really did work as a team. With that approach to decision making, a term such as 'objectives' had only one, very specific meaning. Such a simple thing, you might think, but it meant that with a minimum of internal translation, each person was able to grasp what was going on all along the way, to ask and

answer questions so that everybody understood what everybody else was saying. Which is not usual in such a situation, I can tell you. I have never attended a meeting that covered so much ground, in which so little time was wasted in trying to figure out what people meant by what they said."

One does not have to go to Antwerp to find different backgrounds, points of view, or ways of speaking. Put sales, production, and finance people of any company together in the same room and you may see the same result. Knowing where to start, what questions to ask, and what to do is just as important if people all come from the same geographical area, or even from the same building.

An efficiently functioning team can be put together, but it must be *managed* into being. If you wish to develop an organization to its full potential, many things must be done in addition to teaching and installing a common approach and a common language for addressing management concerns. Assimilation of the concepts presented in this book is only the first step toward realizing their benefits. Continual, routine, shared use of the concepts must be planned for and made to happen by the organization if these benefits are to be achieved and maintained.

A Case History: Using the Kepner-Tregoe Program

After a number of highly successful years in office, an executive in one company of a medium-sized conglomerate was promoted to the position of president and chief executive officer of the entire organization. The organization was stale. This fact was denied by no one. Under tight control by the previous president and major stockholders, with decision making confined almost exclusively to the top level, rifts and cliques had developed. One company within the conglomerate was played off against another to the detriment of productivity overall. The notion of mutual responsibility was unknown. Major problems had been ignored or swept under the rug for years. Now our executive was in the top position, not an altogether enviable one.

He contacted Kepner-Tregoe and explained that he wanted to build a management team around the use of our approaches. Five years earlier he had attended one of our workshops. He had believed then and ever since that the shared use of the ideas could do much to build teamwork among his organization's managers. Now he was able to put that belief to the test. He wanted

managers at all levels—in all companies within the organization—to learn and use the Kepner-Tregoe approaches individually and together. He felt that this experience would enable the managers to begin to see themselves as managers of a single organization, not as vassals of a collection of fiefdoms.

Under his leadership the new president and his twenty-four senior executives were the first to learn and use the concepts. In the first week they analyzed nearly thirty situations, some of which had been avoided for years. Some were resolved; decisions were made to correct many more. The subordinates of this group of managers subsequently went through the same procedure. They learned to use the concepts, put them to work identifying and analyzing situations of major concern, and planned for continuing their analyses to the point of resolution. They then designated the next group of managers to follow suit. In this way, over a period of two months, eighty-four managers learned to use common approaches for addressing and resolving management concerns. New systems and procedures were established to support continuing use of these approaches.

By his actions, the new president said these things loudly and clearly and everyone in the organization heard them:

1. This is one organization.
2. By using common approaches to problems and decisions, we can work together cooperatively as parts of one organization.
3. Everyone will use these approaches, beginning with me.
4. You can think. Your knowledge and experience are important. You are in a position to use effectively the new approaches you have learned.
5. What you do with these approaches will have an important impact on the organization.
6. You are all valuable members of the management team.

The climate of that organization changed as nearly overnight as human nature allows. People learned to talk about problems that had not been discussed openly until then. They learned how to communicate their good ideas so that others would listen and understand why they were good. Through the use of systematic, commonly shared approaches, they solved many more problems and made better decisions than they had before. Who is to say how much of the success this conglomerate enjoyed over the years that followed was due to the use of

systematic, commonly shared approaches, and how much to the sense of participation and pride engendered by the overall set of changes? The question is academic. One element without the other could not have produced the same result.

The president in this example let his people know he believed they could think, he wanted them to express their ideas, he would listen, and they must listen to each other. He provided them with new conceptual tools so they could do a better job of working with available information. He led the way by using the new ideas himself. He established credibility for the new approaches by putting them to the test on real and important situations. He let people learn for themselves that the approaches worked in solving the kinds of concerns faced by the conglomerate and all its components.

- He made a *planned intervention* into his organization.
- He introduced the kinds of *major changes* he believed would do the most good.
- He introduced a *new idea* to his people: I value your ability to think, to come up with good ideas, to express those ideas individually and cooperatively.
- He introduced a *means by which thinking could be coordinated and channeled*. The *climate of cooperation and teamwork followed and was a result of the intervention*.
- Finally, he modified the systems and procedures of the organization to *provide support* for the continuing use of the new ideas.

The new president did not set out to build teamwork or group cohesiveness as desirable things that would somehow improve the operation of the company. He did not try to heal the scars of past in-fighting and conflict. He let teamwork, cohesiveness, and mutual respect grow out of the experience of working together with common guidelines and procedures. He made sure the results of that experience—problems accurately identified and resolved, decisions well formulated and successfully implemented—were recognized and rewarded.

Conditions for Workable Change

For years social scientists have said that humans resist change—and so they do. But they resist only those changes

they do not understand, are suspicious of, or consider to be against their interests. Humans embrace change that seems good for them or good for the world they live in and care about.

A new idea or a new expectation, in itself, will seldom bring about change. On the other hand, change can be very attractive if it is the product of a new idea or expectation that appears to be in the best interests of the people who are expected to adopt it, if it is accompanied by the means for its fulfillment, and if it results in recognition and approval. To improve an organization, we must introduce good ideas, establish the means for making them work, and provide a visible payoff for the effort involved.

No organization can reach its full potential unless it promotes and enjoys the coordination of productive activities among its members. The more complex the activities of the organization, the more need there is for coordination if the organization is to flourish. No one knows it all anymore. Teamwork is an increasingly critical element in organizational success; fortunately, it is not difficult to achieve. But teamwork must be managed into existence through experiences that are capable of producing teamwork.

Four Basic Patterns of Thinking

Teamwork can be managed into existence by teaching people to use consciously and cooperatively four basic patterns of thinking they already use unconsciously and individually. These four basic patterns of thinking are reflected in the four kinds of questions managers ask every day:

WHAT'S GOING ON?

WHY DID THIS HAPPEN?

WHICH COURSE OF ACTION SHOULD WE TAKE?

WHAT LIES AHEAD?

WHAT'S GOING ON? begs for *clarification*. It asks for a sorting out, a breaking down, a key to the map of current events, a means of achieving and maintaining control. It reflects the pattern of thinking that enables us to impose order where all had been disorder, uncertainty, or confusion. It enables us to establish priorities and decide when and how to

take actions that make good sense and produce good results.

WHY DID THIS HAPPEN? indicates the need for *cause-and-effect* thinking, the second basic pattern. It is the pattern that enables us to move from observing the effect of a problem to understanding its cause so that we can take appropriate actions to correct the problem or lessen its effects.

WHICH COURSE OF ACTION SHOULD WE TAKE? implies that some *choice* must be made. This third basic pattern of thinking enables us to decide on the course of action most likely to accomplish a particular goal.

WHAT LIES AHEAD? looks into the future. We use this fourth basic pattern of thinking when we attempt to assess the problem that *might* happen, the decision that *might* be necessary next month, next year, or in five years.

Four kinds of questions. Four basic patterns of thinking. Of course people ask other questions and think in other patterns. Nevertheless, every productive activity that takes place within an organization is related to one of these four basic patterns.

In the Beginning: Thinking Patterns for Survival

The four basic patterns of thinking have not altered substantially since emergence of the human race. The patterns are universal and universally applicable to any situation. Over millions of years, through natural selection these neurological structures—the patterns of thinking, response, and behavior that promoted survival—tended to be preserved and passed on; patterns with low survival value dropped out. Humans became adaptive (problem solving) in their way of life. The elements that made possible those patterns of thinking became part of human nature.

The ability to ask and answer the questions "What's going on?" "Why?" "Which?" and "What lies ahead?" made civilization possible. By accumulating answers to these questions, humans learned how to deal with complexity, how to discover why things are as they are, how to make good choices, and how to anticipate the future.

Survival was guaranteed by the ability to use these patterns, to think clearly, and to communicate with one another for a common purpose. To most people "survival" implies a teetering on the edge of death, a probable fall one way or the other, and the intervention of something that will determine the direction of the fall. In mankind's distant past, when survival con-

cerned the individual alone, this may indeed have been true. But survival depended more often upon the actions of a group of individuals working together, perhaps as a hunting or food-gathering group. The group became a team by working together. Teamwork ensured a food supply for everyone. Teamwork ensured shelter, protection, and a basis for living in a brutally competitive world. There was a place for physical strength, but brains combined with strength counted for far more.

Pattern 1: Assessing and Clarifying

For our earliest ancestors, the most important of the four basic patterns of thinking was the one that enabled them to assess, clarify, sort out, and impose order on a confusing situation. Humans could separate a complex situation into its components, decide what had to be done, and determine when, how, and by whom it would be done. They could set priorities and delegate tasks. This was an integral part of human adaptability—the condition that permits us to change based on an assessment of “what’s going on.” Animals adapt and change in response to external changes, but human adaptation is a chosen behavior resulting from such assessment. Twenty thousand years ago, the answers to “What’s going on?” may have pointed to a slowly vanishing food source, a recurring flood, or an influx of animal pests. In response, humans took the steps necessary for survival: move to a new location, alter eating habits, adopt better hunting practices. In short, this fundamental pattern of thinking enabled humans to prevail in a variety of surroundings and against an array of profoundly adverse conditions.

Pattern 2: Cause and Effect

The second basic pattern of thinking—the one that permits us to relate an event to its outcome, a cause to its effect—gave early man the ability to assign meaning to what he observed. The earliest humans did not understand such natural events as birth, illness, and death, or the rising and setting of the sun. That understanding came much later through the accumulation, contemplation, and communication of observations about their world. It was the refinement of cause-and-effect thinking that enabled humans to move beyond mere reaction to their

environment, to make use of the environment instead of being forever at its mercy.

Small children constantly ask, "But *why*?" They are exhibiting this basic thinking pattern: the desire to know why things are as they are and why they happen as they do. This desire is so basic that even an inaccurate explanation of a puzzling fact is preferable to none at all. Early man was satisfied with an explanation of a universe that revolved around the activities of supernatural beings. It was far preferable to no explanation at all for such readily perceived phenomena as the changing nature of a star-filled sky. Even today we have relatively few answers to the gigantic puzzle of the universe, but the answers we do have are comforting.

The thinking pattern we use to relate cause and effect is as basic and natural as the pattern we use to assess and clarify complex situations. Both enable us to survive, flourish, and maintain a true measure of control over our environment.

Pattern 3: Making Choices

The third basic pattern of thinking enables us to make reasoned choices. It is the pattern that permitted early man to decide whether to continue the hunt all night or wait until morning, hide in this cave or that tree, camp on this or that side of the river. Productive, coherent action—as opposed to simple reaction to the event of the moment—depends on a sound basis for choice. In a hostile environment populated with larger, stronger, and faster creatures, random action too often could have only one end for early man, and that sudden. The development of sophistication in the making of choices, along with goal setting and consideration of the consequences of one action as opposed to another, meant that humans could sometimes eat tigers instead of vice versa.

The choice-making pattern gives rise to three major activities:

- Determination of purpose (to what end the choice is being made).
- Consideration of available options (how best to fulfill the purpose).
- Assessment of the relative risks of available options (which action is likely to be safest or most productive).

When faced with a choice, we are likely to spend most of our time and thought on only one of these three activities. But whatever the balance, however complex the choice, these three factors determine the kinds of choices humans have always made and continue to make.

Pattern 4: Anticipating the Future

The fourth basic pattern of thinking enables us to look into the future to see the good and bad it may hold. This ability to imagine and construe the future, even a little way ahead and that imperfectly, gave our ancestors a tremendous advantage. It permitted them to anticipate the storm and the snake, the starvation of winter, the thirst of summer. Future-oriented thinking was made possible largely by the superior development of cause-and-effect thinking (the second basic pattern described above). Humans learned to apply their knowledge of cause-and-effect relationships: of what *had happened*, and why, to what *could happen* and what the future *might hold*. They learned to take actions in the present against the possible and probable negative events of the future.

Although preventive action is as old as the human race, the thinking pattern that produces this action is less successful than our other patterns. Unfortunately, the future carries less urgency than the present. Early man learned to keep some of the food of summer against the ravages of winter—but the supply was rarely adequate. The importance of the future tiger, the future fire, or future starvation was small compared with the immediacy of the tiger five yards away, the threat of fire visibly approaching, or the reality of imminent starvation. Even today we face the unfulfilled potential of this fourth basic pattern of thinking: the ability to plan ahead, to take action today against the negative events of tomorrow.

Basic Patterns of Thinking in the Organizational Context

Kepner-Tregoe has developed four basic rational processes for using and sharing information about organizational concerns. These processes are systematic procedures for making the best possible use of the four patterns of thinking. This is why the

Kepner-Tregoe processes are universally applicable regardless of cultural setting, regardless of the content against which they are applied. Whether managers are Japanese, Canadian, or Brazilian, they are all equipped—as a result of common human experiences—with identical, unchangeable patterns of thinking. It is only content that changes.

Situation Appraisal

The rational process based on the first thinking pattern is called *Situation Appraisal*. It deals with the question “What’s going on?” and with assessing and clarifying situations, sorting things out, breaking down complex situations into manageable components, and maintaining control of events.

When a management situation occurs, the available information is usually a confusion of the relevant and the irrelevant, the important and the inconsequential. Before anything reasonable or productive can be done, the confused situation must be sorted out so that its components can be seen in perspective. Priorities must be set and actions delegated. There must be some means of keeping track of information as old situations are resolved and new ones take their place.

Situation Appraisal is designed to identify problems to be solved, decisions to be made, and future events to be analyzed and planned. Therefore, we must understand the rational processes applicable to these areas before studying the techniques and procedures of Situation Appraisal itself. For this reason Situation Appraisal is presented in Chapter Seven, following the explanation of the three remaining rational processes: Problem Analysis, Decision Analysis, and Potential Problem Analysis.

Problem Analysis

The second rational process, called *Problem Analysis*, is based on the cause-and-effect thinking pattern. It enables us to accurately identify, describe, analyze, and resolve a situation in which *something has gone wrong without explanation*. It gives us a methodical means to extract essential information from a troublesome situation and set aside irrelevant, confusing information.

Problem Analysis is explained in Chapter Two, and examples of its use are presented in Chapter Three.

Decision Analysis

The third rational process, based on the choice-making pattern of thinking, is called *Decision Analysis*. Using this process, we can stand back from a decision situation and evaluate its three components. We can analyze the reasons for making the decision and examine its purpose. We can analyze the available options for achieving that purpose. We can analyze the relative risks of each alternative. From this balanced picture of the situation, we can then make the wisest and safest choice—the one that has emerged after careful consideration of all the factors.

Decision Analysis is explained in Chapter Four, and examples of its use are presented in Chapter Five.

Potential Problem Analysis

The fourth rational process is based on our concern with future events—with what *might* be and what *could* happen. We call it *Potential Problem Analysis*. A potential problem exists when we can foresee possible trouble in a given situation. No one knows for sure that trouble will develop, but no one can guarantee that it will not. This process uses what we know or can safely assume in order to avoid possible negative consequences in the future. It is based on the idea that thinking and acting beforehand to prevent a problem is more efficient than solving a problem that has been allowed to develop. This rational process enables an organization to take an active hand in shaping its future.

Chapter Six deals with the ways organizations have used Potential Problem Analysis to reduce the number and severity of their problems.

The Rise, Fall, and Rise Again of Teamwork

All humans have the inherent capacity to think in terms of Situation Appraisal, Problem Analysis, Decision Analysis, and Potential Problem Analysis. These processes are basic and natural. Unfortunately, they cannot be put to work automatically, used equally well by all humans, or used on a shared basis. Why should this be so?

Every person has a personal, idiosyncratic way of understanding, handling, and communicating such things as cause-and-effect relationships and choice-making. Some people develop better ways than others. Some may be only moderately skilled in, say, cause-and-effect thinking but exceptionally good at communicating their conclusions. (They may be more successful than others who are more skilled but less communicative.) The way a person thinks can be deduced only by observing that person's behavior and paying careful attention to his or her conclusions. What information was used and how it was used remain invisible. "I don't see how you could arrive at that" is our ordinary way of expressing the fact that thinking is an inside job.

So we have a two-fold need, complicated by the fact that we are often unaware even of our own thinking patterns. The actual *level of skill in thinking*—about problems, decisions, and all other organizational concerns—*needs to be as high as it can be*. That level of skill rises when people have grasped the techniques of rational processes and have learned to apply their basic thinking patterns to management concerns. That's the easy part. *It is more difficult for people to learn to think together*. How can we achieve teamwork in an activity as individual and internal as thinking?

Teamwork in the use of patterns of thinking does not just happen. As discussed earlier, it must be contrived, consciously planned, or unconsciously fostered through the closeness and visibility of the team members. A group may become a team of sorts simply by working together on a particular task for a long enough time. They may come to understand each other's roles in a common task. They may come to appreciate each other's ways of thinking and learn to accommodate to individual idiosyncrasies in the way information is used. Although a workable set of effective and appropriate compromises may emerge from this context, this group is not yet the full-scale, multipurpose team that can truly share in the thinking process.

Hunting and Gathering: Models of Superior Teamwork

We can gain insight into what is useful in today's organizations by speculating on the achievement and consequences of teamwork exhibited by our earliest ancestors. Teamwork is perceived as a precious commodity today, and the earliest humans had it down pat.

For early man, available information was largely visual: tracks, signs, and indications could be mutually observed and pointed out. Hunting and food-gathering groups were small—probably fifteen to forty people of all ages. The young learned from the old through intimate contact and close observation. Old and young pooled their intellectual resources by talking about what they saw. They thought aloud—a characteristic typical of people who live together closely. In this way they acquired commonly understood meanings for their words. Their language became expressive of detail, of fine distinctions of form, color, texture, and of thoughts and feelings. They developed few abstract terms. The languages of hunting and gathering groups that survive today retain these characteristics, suggesting how life's business probably was conducted by early man. Although there is no difference between their mental processes and ours, early man's need for communication led to a language rich in concrete, literal words that were open to verification and that had explicit definitions within a shared reality.

With a common experience of their environment and a common set of terms to describe it, the members of a hunting team functioned more as a single coordinated body than any comparable modern group. The leader was the most proficient and skillful but there was no need for him to give orders and directions. Everyone understood what was to be done, who could do it best, and how to mesh individual efforts into a concerted whole. Entire vocabularies were committed to sign language to preserve silence. Hundreds of words could be expressed by formalized gestures instantly and commonly understood.

It is little wonder that hunting and gathering people were able to achieve such a high order of coordination and teamwork in their activities. It was as though they carried on-board headbone computers commonly programmed with a single shared set of routines and instructions. With these computers so closely aligned, even a little information was sufficient to trigger a common understanding among all those who received it: They knew what the information meant and what was to be done. There was little ambiguity or uncertainty in the treatment of and response to an input. Success and survival depended upon everyone's getting the same message at the same time. Teamwork among humans probably reached its highest point of development with the hunting peoples, immediately before the advent of agriculture. This teamwork was made pos-

sible by possession of a common language to express and share a common way of thinking.

The domestication of plants and animals doomed the hunting life. No longer was it necessary for the members of a band to think and exist in so parallel a fashion. Now there was specialization of function. Groups became larger, and diverse social and political units appeared. Now there was room for different beliefs and behavior. Gone was the economic uncertainty of hunting and gathering, but gone also was the closeness such a life imposed. The intense teamwork of the hunting group disappeared forever; the luxury of individual thought and individual interpretation of ideas had arrived.

Applying the Model: Needs of the Modern Organization

No one in his right mind wants to go back to the days of hunting and gathering. But it would be tremendously valuable if we could recapture that ability to work together with even a fraction of that efficiency to deal better with modern problem situations. Now, through contrivance and planning, we *can* recapture that ability and channel it to meet the needs of the modern organization.

This is not to say that the organizational team will somehow represent a modern hunting group armed with ballpoint pens instead of bows and arrows. Hunters' ways of thinking were totally aligned, and their lives were totally aligned. What is required today is not total teamwork in all aspects of life; rather, it is a selective, functional teamwork that can be turned on when needed, limited to those activities where it will be most productive. What is required is teamwork that can be summoned to handle organizational problems yet leave team members free to act as individuals in all other respects.

We need an approach that can be invoked and shared when we need answers to specific questions, regardless of content: the "What's going on?" that applies orderliness to complexity and confusion; the "Why?" of any set of circumstances in which the cause-and-effect relationship is obscure; the "Which?" of a situation in which one course of action must be adopted in favor of others; the "What lies ahead?" that must be thoughtfully considered in order to protect and nurture the organization's future.

ple within the organization, for they should be the first to learn and use the new ideas. We must identify their subordinates and the people who provide them with information. We must identify those who will implement the conclusions that come out of the use of the ideas. In short it is imperative to pinpoint *all the people within an organization who make things happen*. The objective is to move the organization closer to its full potential. This can be done only by introducing teamwork based on the continuing *conscious* use of common approaches expressed in a simple, common language and directed toward resolution of an organization's important concerns.