Stream Analysis

A Powerful Way to Diagnose and Manage Organizational Change

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Stream Analysis

To my mother,
Leonela Victoria Porras

Foreword

The Addison-Wesley Series on Organization Development originated in the late 1960s when a number of us recognized that the rapidly growing field of "OD" was not well understood or well defined. We also recognized that there was no one OD philosophy, and hence one could not at that time write a textbook on the theory and practice of OD, but one could make clear what various practitioners were doing under that label. So the original six books by Beckhard, Bennis, Blake and Mouton, Lawrence and Lorsch, Schein, and Walton launched what has since become a continuing enterprise. The essence of this enterprise was to let different authors speak for themselves instead of trying to summarize under one umbrella what was obviously a rapidly growing and highly diverse field.

By 1981 the series included nineteen titles, having added books by Beckhard and Harris, Cohen and Gadon, Davis, Dyer, Galbraith, Hackman and Oldham, Heenan and Perlmutter, Kotter, Lawler, Nadler, Roeber, Schein, and Steele. This proliferation reflected what had happened to the field of OD. It was growing by leaps and bounds, and it was expanding into all kinds of organizational areas and technologies of intervention. By this time many textbooks existed as well that tried to capture the core con-

cepts of the field, but we felt that diversity and innovation were still the more salient aspects of OD today.

The present series is an attempt both to recapture some basics and to honor the growing diversity. So we have begun a series of revisions of some of the original books and have added a set of new authors or old authors with new content. Our hope is to capture the spirit of inquiry and innovation that has always been the hallmark of organization development and to launch with these books a new wave of insights into the forever tricky problem of how to change and improve organizations.

We are grateful that Addison-Wesley has chosen to continue the series and are also grateful to the many reviewers who have helped us and the authors in the preparation of the current series of books.

Cambridge, Massachusetts   Edgar H. Schein
New York, New York   Richard Beckhard

Preface

CHANGE! Over the last three and a half decades, rapid change has been both a plague and an opportunity for organizations. Those who viewed it as something to resist and overcome have atrophied and died. Those who seized it, used it, flowed with it, integrated it, and accelerated it, have, by and large, flourished and prospered.

Warren Bennis, describing the world of organizations as he saw it in 1966, said:

> Everything nailed down is coming loose, . . . no exaggeration, no hyperbole, no outrage can realistically describe the extent and pace of change which modernization involves. In fact, only the exaggerations appear to be true. And it is to our credit that the pseudo horror stories and futuristic fantasies about *increases* in the rate of change fail to deter our compulsive desire to invent, to overthrow, to upset inherited patterns.[1]

Today the rate of change is even greater. Lead by the microelectronics revolution, changes in the demands placed on or-

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[1]W. G. Bennis, *Changing Organizations* (New York: McGraw-Hill, 1966).

ganizations have been both dizzying and disconcerting. To survive, everyone knows that organizations must change, but the fundamental question facing managers now, as then, is "How?" What must be done to survive in the ever-changing environment? What are the specific things that should be changed? How are they identified? Once identified, how are they changed? What effects do planned changes have on the organization's survival and on the well-being of the organization's employees?

The main purpose of this book is to present Stream Analysis, a powerful new method for providing responses to many of these questions and for guiding planned change in organizations. It is about managing change, the process of diagnosing organizational functioning, planning specific change activities, implementing alterations in a system's character and functioning, and tracking the actions taken. It draws both its intellectual and its applied roots from a wide variety of sources. More than anything, however, it is based on the idea that organizational change can be planned and managed—managed in a more systemic and systematic fashion than it has in the past. Yet, for this to be possible, both managers and change practitioners must have better frameworks for understanding the organizational problems they face and ways of dealing with them. The frameworks should be based on sound fundamental concepts about organizations and people and about the leverage points for organizational change. Altering those leverage points affects individual employees who must, in the end, change the way they behave on the job for systemic change to take place.

The Stream Analysis technique is a broad and general framework. As presented here, some of its analytical dimensions are drawn directly from a theoretical perspective on organizations that I will propose. One attractive side of the stream approach, however, is that the dimensions used in the framework could be different if one held a theory of organization different from mine. In any case, the ax I like to grind is that everyone working in change settings should hold at least *some* theoretical perspective to guide their work. Otherwise, they are operating solely on intuition or on partial views of very complex realities—both shaky foundations for guiding change processes. For Stream Analysis, the reader's theory of organizations could be inserted into the

stream framework and used as the basis for its application. The technique is sufficiently robust to handle many views of how organizations function.

Understanding the theoretical underpinnings of any change method or technique is necessary for the method to succeed. Historically, too many planned change efforts have been driven by technique rather than by theory, frequently resulting in the misapplication of whatever technique was being used.[2]

As far back as 1954, Peter Drucker pointed out the absence of theory on how organizations function. He did so while describing the world's movement out of the modern age into what he called an "as yet unnamed era." He noted that as we move into the "post-modern" world we have "no theories, no concepts, no slogans—no real knowledge—about the new reality."[3] Today, we find ourselves in the middle of the same dilemma. On the one hand, the inevitable, rapidly accelerating change in the world forces organizations to respond. On the other hand, we still do not possess a comprehensive set of theories and concepts about what our current states are and how to move into desired future states. We have more knowledge than we did in 1954, but we still lack comprehensive frameworks for understanding the full complexity of organizational dynamics and for guiding the processes of change. This book is an attempt to speak to these needs by providing both a method for guiding the process of change—Stream Analysis—and the basic theoretical framework for understanding organizational dynamics which constitute the underpinnings of this new approach.

Although my main purpose here is to present a technique for improving organization functioning, the reader should have a breadth of knowledge on the dynamics of organizations as background for understanding the technique and why it can be useful for guiding planned change. Based on this, I have argued that anyone trying to change an organization should begin with clear ideas about what an organization is before taking any action.

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[2]It is important to note that these situations have not always been the fault of those leading the change effort. Instead, they often have reflected the generally thin and incomplete state of planned organizational change theory.

[3]P. F. Drucker, *The Practice of Management* (New York: Harper & Row, 1954).

The book contains two main thrusts. The first is the Stream Analysis method for diagnosing failings in organizational functioning and for planning, implementing, and tracking all needed change actions. The second is the Stream Organization Model, a conceptual basis for Stream Analysis, usable by both managers and change practitioners to understand organizations better and thus what to change in them to improve system functioning.

Chapter 1 begins with several scenarios often encountered in planned change projects and broadly describes how the Stream Analysis approach can help deal with some of the weaknesses in current practice that these scenarios point out. Chapter 2 then describes Stream Analysis in detail, specifying its components and steps for implementation. Chapter 3 begins with a series of fundamental concepts on organizations as systems and on how people learn and change their behavior in them. Based on these concepts, the Stream Organization Model, a framework for understanding organizations from a change perspective is presented next. Chapter 4 presents three examples of the application of Stream Analysis for managing planned change. Chapter 5 offers tips on the effective use of Stream Analysis and discusses some of the traps that exist in its application. The final chapter (Chapter 6) presents an overview and summary, outlining and integrating the Stream Analysis method with the Stream Organization Model.

Since Chapter 3 contains more basic theoretical material, those managers or consultants familiar with much of the organizational change literature may want to skim or skip it and move on to the detailed examples of the application of Stream Analysis. Generally, the technique of Stream Analysis can be understood without a detailed understanding of the theoretical rationale behind it. However, knowing the conceptual underpinnings of any change technique is important for its proper application. So I would urge the less knowledgeable reader to skim Chapter 3 at the very least in order to make sure that the concepts upon which I have based Stream Analysis are familiar and make sense.

As in any project of this nature, there are numerous people who have contributed to it, both intellectually and emotionally.

Like thousands of other authors before me, I would like to thank several of them for all the valuable help they gave me both in the generation of these ideas and in their reactions to earlier versions of this manuscript.

First and foremost, I wish to thank Joan Harkness, manager of the operating room at El Camino Hospital, Mountain View, California. Joan is a wonderful combination of tough-minded manager and expert organization development specialist. Better than anyone I have ever met, she is able to blend skillfully the principles of organization development with the everyday challenges of managing a highly successful organization. Stream Analysis started in her department over six years ago and every day since then she has provided an excellent laboratory for its evolution and development. Without her willingness to use Stream Analysis and innovate with it, many of the ideas presented here would not exist. Coeleen Kiebert was also instrumental in the original conceptualization of Stream Analysis. Working with Joan as a consultant to the operating room department, Coeleen was a central figure in developing Stream Analysis as a research tool. Her background in art strongly influenced the graphic nature of the approach.

Other colleagues, in a loosely connected group we call STREAM, have contributed in a variety of significant ways to the development of this technique. Gary Dexter, working as an external consultant, has applied Stream Analysis in major ways to three organizations. His experiences have contributed greatly to my thinking about the approach and especially to the material presented in the examples chapter and the tips and traps chapter of this book. Emily Lyon, while she was an internal organizational consultant at Lockheed Missiles and Space, was one of the first users of the stream framework and contributed many key ideas to ways in which the technique could be concretely made operational. Susan Hoffer, Tom Robinson, and Peter Robertson, the remaining three members of STREAM, provided numerous ideas during the vast number of discussions the group had about Stream Analysis and how to use it. I would especially like to single out Peter because he has contributed to my intellectual development in many other ways. As a co-author with me on several academic papers, he has helped me to understand organiza-

tions better from a theoretical perspective and to sharpen many of the ideas presented here.

Several managers and practitioners have used Stream Analysis and have provided me with material that has in one way or another, influenced me and my thinking about the technique. Doug McCormac, vice president and managing director, TRW Components International; Marge Dunne, former president, Prolog; Vern Glick, director of manufacturing, Lockheed Missiles and Space; Jim Thorne, vice president of human resources, Fisher Controls; Eddie Reynolds, organization development manager, and his group of organizational consultants at Pacific Gas and Electric; Gary Merrill of Drake, Beam, Morin; and, finally, Peter Garne and Dennis McNulty, both organization effectiveness consultants at Lockheed Missiles and Space, are all people I would like to mention and thank.

I would like to express my special appreciation to Milton Johnson, formerly senior editor at Addison-Wesley, for being sufficiently interested in Stream Analysis to include it as part of the OD series. Without his encouragement and support, this book would probably never have been written. Jim Heiter, my current Addison-Wesley editor, deserves special thanks as do Dick Beckhard, Ed Schein, Jim Koch, and Harvey Hornstein, who provided numerous insightful comments on how to improve drafts of the book.

Finally, I wish to thank my wife, Charlene, and my son, Rick, for constantly believing in me and my abilities to accomplish whatever I want. Charlene has made the difference in my life, both personally and professionally, while Rick provides the inspiration to do whatever I can to make the organizations he will inherit better, more effective places in which to work.

Stanford, California   Jerry I. Porras

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Introduction

Picture the following scenarios commonly occurring in many planned change efforts:

1. A detailed diagnostic questionnaire was administered to all members of Division Alpha of a large multinational organization. The results were fed back to the top management team who then conducted in-depth analyses of the data. This analytical process led to identifying a set of issues considered to be key problems in the system. When the managers attempted to plan the actions they would take to deal with the problems revealed, they found that they could not reach an agreement on exactly what to do. The source of their difficulties seemed to be that widely diverse interpretations existed about what the data really meant. A typical example concerned the organization's inability to deliver its products according to schedules given customers by the marketing group.

The marketing manager saw the problem as an attitudinal one: If manufacturing really cared about taking care of our customers, they would get the products delivered as promised. A product manager saw it as a scheduling problem: If manufacturing would schedule its activities properly, it would be able to de-

liver products on time. The engineering manager saw it as a resource problem: If manufacturing had the personnel and machinery to meet the demands placed on it, products would be delivered when promised. The manufacturing manager saw it as a problem of priorities: If marketing wouldn't treat every order as equally important and make unrealistic promises about delivery schedules, we could get the products out on time. As the discussion unfolded, the assumptions held by each manager about what the problem really was never clearly surfaced. Because of all the differing views and the lack of any clear mechanism for revealing the assumptions underlying them, the managers were unable to agree on the best actions to take.

2. A task force representing various areas of the Beta Gas and Electric Company was established to guide a comprehensive planned change process. It made a diagnosis, planned a series of actions, and began implementing them. Broad-scale employee apathy and resistance to the change actions resulted. Upon questioning of several typical organization members, the task force discovered that although numerous memoranda had been sent out announcing and describing the change effort, the average employee felt that he or she knew next to nothing about the changes that were being implemented or the reasons why. Respondents stated that they had filled out a questionnaire and had received a printed summary of the data and some statement about specific actions that were to be taken. They felt that the data summary had been just a bunch of numbers out of which they could make little sense. The actions described made sense but didn't seem to be getting at the problems that were really important; besides respondents didn't understand why the particular actions were chosen in the first place. Finally, they felt they didn't know what was going to happen in the future. As a result, there was much worry and fear about how the changes would affect each person and little motivation to get wholeheartedly involved in the change effort.

3. An extensive planned change process had been going on in the Gamma Microelectronics Company for approximately one year. Frustration about the change effort had been growing over the last four months because problems that had appeared to be