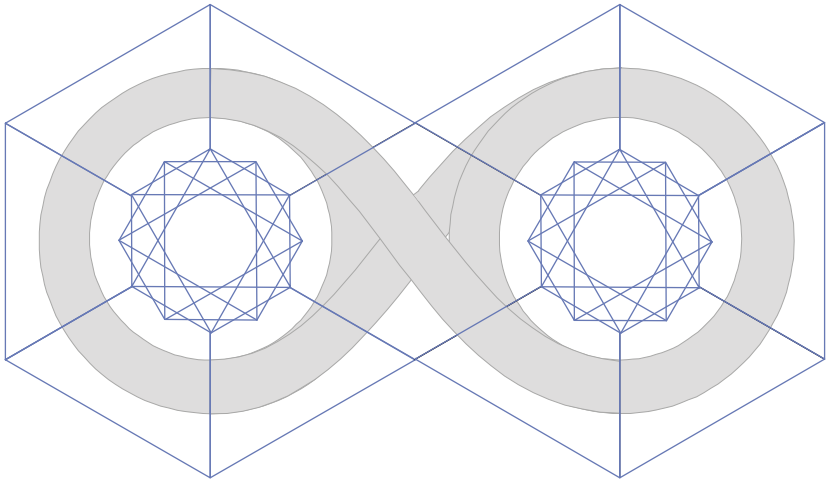


THE GEOMETRY OF DIALOGUE

A VISUAL WAY OF UNDERSTANDING INTERPERSONAL COMMUNICATION AND HUMAN DEVELOPMENT

BY DENNIS RIVERS, M.A.

HUMAN DEVELOPMENT BOOKS
BERKELEY, CALIFORNIA, USA
THIRD EDITION -- SEPTEMBER 2006

Third Edition -- September 16, 2006, revision.

Published by:
Human Development Books
1563 Solano Ave. #164
Berkeley, CA 94707, USA

This book is available free of charge on the Internet as an Adobe Acrobat PDF file,
at www.NewConversations.net/geometry_of_dialogue

To order printed copies, please visit www.hudevbooks.com

Copyright 1997 - 2006 by Dennis Rivers. All rights reserved. May be reproduced in whole or in part for non-profit, educational purposes within the limits of the "fair use" copyright legal precedents.

Contributions in support of free distribution and continued development of this work will be gratefully received by the author at the address shown below. *(Please note that gifts to authors in support of their work are not tax-deductible.)*

Dennis Rivers
1563 Solano Ave. #164
Berkeley, CA 94707, USA

TABLE OF CONTENTS

ACKNOWLEDGEMENTS i

1. MY QUEST FOR A FACILITATIVE MODEL OF INTERPERSONAL COMMUNICATION 1

2. METHODOLOGY AND JUSTIFICATION: WHY BUILD A MULTI-DIMENSIONAL MODEL OF INTERPERSONAL COMMUNICATION? 20

3. AN OVERVIEW OF THE SIX DIMENSIONS/FIVE TRANSFORMATIONS MODEL: STEPS TOWARD A GEOMETRY OF DIALOGUE 33

4. THE ELEMENTS OF EXPERIENCING (DIMENSION 1) 49

5. INTENTIONS IN CONVERSATION AND INTERACTION (DIMENSION 2) 57

6. FUNDAMENTAL FORMS OF COMMUNICATIVE ACTION (DIMENSION 3) 72

7. STYLES OF ACTION AND INTERACTION - THE GENESIS OF REFLEXIVITY (DIMENSION 4) 96

8. SELF-AWARENESS AND EXPLORATORY SELF-QUESTIONING (DIMENSION 5) 121

9. THE INNER RESOURCES THAT WE USE TO SHAPE OUR EXPERIENCE AND RESPONSES (DIMENSION 6) 144

10. THE EVOLVING PERSONS IN INTERPERSONAL COMMUNICATION 162

11. SUMMARY AND POSTSCRIPT: A SEARCH FOR AN ACTION FACILITATING GEOMETRY OF DIALOGUE 187

SELECTED BIBLIOGRAPHY 191

LIST OF ILLUSTRATIONS

Figure

1.1 The conversation layer of the Six Dimensions model 16

1.2 Both sides of the dialogue in the Six Dimensions model 17

1.3 The contexts of conversation in the Six Dimensions model 18

3.1 The first spiral of the Six Dimensions model 34

2.2 A "spiralling-ribbon" drawing of the Six Dimensions 39

4.1 A folk model of mental processes and the causal relations among them 50

5.1 The hierarchy of contexts in interpersonal communication 59

5.2 Relation of speech act categories to mental processes 63

10.1 The hierarchy of contexts in interpersonal communication (figure repeated from chapter 5 for reader's convenience) 162

10.2 A fragment of the Six Dimensions CONTEXTS flow chart 162

10.3 A ten-fold interpretation of the tasks of human development 164

LIST OF TABLES

Table

2.1 Resources for an integrative model of awareness, communication and action 46

6.1 Brammer's outline of helping skills 81

8.1 A preliminary list of exploratory questions 126

10.1 Five-part empathizing and asserting 166

ACKNOWLEDGEMENTS

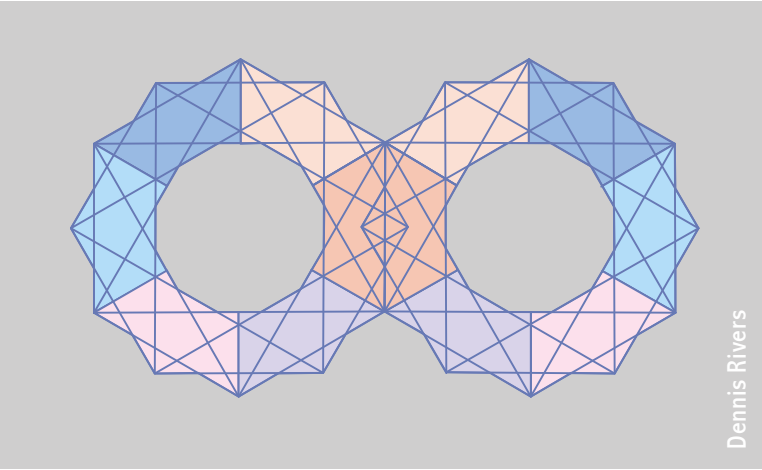
I would like to take this opportunity to thank at least some of the many people who made this study possible. Dr. Marshall Rosenberg, of the Center for Nonviolent Communication, was the person who first got me inspired to pay attention to the moment to moment flow of interaction between people. Prof. W. Barnett Pearce, of Loyola University of Chicago, has been a great mentor and has given me large quantities of time, insight, inspiration and Indian food, to keep me going when it was difficult for me to see how I was going to accomplish the goals I had set for myself. Dr. Helen Meloy, of Calif. State University Northridge, worked with me on teaching materials and gave me the opportunity to teach communication skills to her peer counseling students as a guest lecturer at the Ventura Campus. I owe those co-learners a deep debt of gratitude for allowing me to accompany them on their first journey into the world of community volunteering. Dr. Susan Rennie, of Vermont College, encouraged me to press on even when the way was not clear to me and the topic that I had chosen turned out to be much more difficult than I had imagined. My dear friend Clive Casez did not live to see this manuscript, but I know he would have enjoyed it, having dreamed with me in the late 1980s the wildly unrealistic dream of a book about interpersonal communication that would say it all with perfect clarity. Michael Bean, systems designer extrordinaire, equally at home with bicycles, bee hives and computers, has been a continual source of inspiration and encouragement to me to design the world continuously being born. Prof. Robert Kegan, whom I have never met in person, has transformed my understanding of human development through his visionary (and difficult) books. (He is not responsible for how I have applied his ideas.) All the people of good heart who have participated in my nonviolence trainings and compassionate communication workshops have helped me to keep alive the dream of a nurturing, cooperative world through times of great violence and confusion. And I give thanks for the Damiana tea has helped me to dream in bright colors.

Dennis Rivers

THE GEOMETRY OF DIALOGUE

CHAPTER ONE:

MY QUEST FOR A FACILITATIVE MODEL OF INTERPERSONAL COMMUNICATION



Geometry of Dialogue -- Graphic Study #1

1.1. Personal meanings and universal challenges

I would like to begin this study by placing the topic of communication skills in the broadest possible historical context, a context which, at the same time, has great personal meaning for me.

In the course of my lifetime, which began in 1941, and with a pace that is still accelerating, the effectiveness of human tool-making has made mind-boggling leaps forward. By tools I mean computers, airplanes, cars, chemicals, bombs, guns, etc.: all the instruments of creation, destruction, transportation and communication that we have made to achieve our goals. For better or worse, almost all of them have gotten much more effective at doing whatever they do. As a computer programmer in the 1980s I

watched this happen on my very own desk. The computers I programmed doubled or tripled in power *every few years*, and continue to do so today. And I loved it.

Similar quantum-leap improvements in our tools are happening everywhere one looks. Fiber optic cables carry thousands of messages where a wire carried one. My friend's knee surgery was performed with tiny, remotely controlled cables. Such examples of tool-making success could be extended to fill many books.

Unfortunately, all the things that destroy life have gotten more effective, too. The plutonium we have created for nuclear warheads is *3.5 million times* more explosive than the TNT it replaces. Around the world, warring forces sow the land with new, improved, plastic land mines that are undetectable with traditional mine sweeping equipment and will lie in wait for decades, perhaps even centuries. This list also goes on and on.

All our tools, good and bad, tools for saving lives and tools for killing people, are getting more powerful. What makes this a pressing problem is that there has been no parallel increase in our ability to get along with one another, no change in our fundamental intentions toward one another, which are often coercive and punitive.

I leave it to you to judge whether our ability to communicate and reconcile our conflicts is deteriorating or just holding its own, as the years roll by. Based on the evidence of the twentieth century, a person would have to work very hard to argue that it was getting better. And no one in their right mind would suggest that our ability to get along had improved a thousand or million fold, as has the power of our tools.

So, as I struggle to understand my own era it appears to me that humanity is moving deeper and deeper into a crisis of tool-making versus social skills and interpersonal intentions. What I see is a rapidly expanding gap between our growing physical capacity to blow one another to pieces, on the one hand, and on the other, our relatively unchanging capacity to manage the conflicts of everyday life and negotiate about the distribution of limited resources. (Gunshot wounds are now the leading cause of death of young African-American men.) It's hard to see how life can continue if this gap goes on getting larger. At every level of human society, from a family quarrel that ends in a shooting to nations that threaten each other with nuclear weapons and poison gas, our capacity for mechanized mayhem appears to be racing further and further ahead

of our communication skills.

It is considerations such as these (and the fact that I come from a family in which people did not talk to one another for decades at a time) that have turned me into a missionary for communication and conflict resolution skills.

What gives me hope is that fighting and making peace are both learned activities. No human being is born knowing how to do either. And just has we have invented new and more destructive ways to fight, we can invent new and more effective ways to make peace, and more creative ways to cooperate. We can invent them, and I believe we need to invent them soon if we want life to continue on planet Earth. And it is also true that better communication skills just plain make for a happier life, so this is not some bitter medicine we have to take. The path toward community and world peace can also be a path of deep personal fulfillment.

No one has influenced my thinking about human development more than the developmental psychologist Robert Kegan, whose books I will quote many times in this study. In Kegan's view, the central theme of human development a growing capacity to observe one's own psychological processes: thinking, feeling, role-playing, story-telling, story making, etc. I think this may also be true of a family, an entire culture, or even of humanity as a whole. Just as getting along better in a family may involve the family members becoming more aware of how they handle conflict situations, the growing crisis of mechanized violence presses humanity as a whole to become more aware as a of how we cooperate (or don't), communicate (or don't) and solve problems together (or don't). Many people are working to nurture this new global self-awareness and through this study I add my effort to theirs.

1.2. Issues in teaching communication skills

The Six Dimensions model, explained at length in this book, is an elaborate picture of the components, processes and possibilities at work in interpersonal communication, and is intended to be used as an overarching outline for communication skills training. Before I begin explaining all the various levels and details of this model, I would like to explain how it was that I got inspired to try to create such a model in the

first place and the intellectual resources I hoped would make this model more illuminating and empowering.

The goal of communication training, as I see it, is to empower people to enter more skillfully, awarely, creatively and enthusiastically into all the various negotiations of living. Because living, whatever else we may say about it, is a communication-intensive activity. Since each of us is a unique person with unique needs, we are often going to want something different than the people around us. And since we live in a world of limits (limited land, food, time, attention, etc.) we have to negotiate with other people to try to get our needs met, and to try to arrange that everyone gets at least some level of their basic needs met. If we say that life is about relating to other people, we are also saying that life cannot be understood without including communication. As I came to recognize this, over the course of the 1980s, I became more and more interested in how people communicate.

In the course of being both a student and a teacher of communication skills, I was always on the lookout for simple techniques that would help people communicate better. After a lot of trial and error it became clear to me that the "simple techniques" approach was not going to produce much in the way of results. This is largely because a person's communication activities are embedded in, and arise out of, a web of contexts that constitute one's overall way of understanding oneself and the world of relationships in which one lives. (In other words, I was trying to get the tail to wag the dog.) In the last paragraph I stated that life cannot be understood without including communication. It is also true, I now believe, that communication cannot be understood very deeply without including the situations, relationships, communities and journeys we call life.

1.3. My need for an overall model of persons in process

As I tried to clarify key issues and attitudes involved in talking and listening more satisfyingly, I became aware that I did not have a satisfactory working model of a person's "web of contexts" that I could link to communication. I was impressed with various theories of human functioning, especially that of Erik Erikson[1], in which the developing ego is the mediator between the organism's needs and the environment's

[1] Eric Erikson, *Childhood and Society*, 2nd ed. (New York: Norton. 1963).

resources and constraints. I also had been deeply inspired by the Object Relations theory of human development, in which infants are seen as gradually weaving a sense of self out of remembered interactions with their mothers (or other primary care givers). But I got nowhere when I tried to use such ideas to understand the moment-to-moment twists and turns in conversations. It was clear to me that conversations are the leading edge of our evolving relationships with other people, and thus the leading edge of our evolving personalities. But I could not really describe the connection.

This frustration led me to investigate more conversationally-oriented models of overall human functioning[2]. The result, after ten years' work, is the Six Dimensions Model described in this study. The Six Dimensions model is a reshuffling of ideas from existing studies and theories into a communication skill trainer's (and learner's) model, one that emphasizes the links between conversations, relationships and personhood. Traditional theorizing in psychology and communication studies is generally not intended to help ordinary people understand their lives better or take new actions. The Six Dimensions model, on the other hand, is a teaching model. It is addressed to the general public in the hope of stimulating people's interest in and exploration of better communication skills and personal/social development. It uses conversations as a way of beginning to work on significant developmental issues, such as "What kind of story do I use to understand new situations?" and "What sort of person am I becoming in and through my actions in my daily life?"

My drive to build a multi-dimensional model of communication is also the result of two ideas connecting in my mind in an almost explosive way. The first idea comes from the work of Robert Kegan on the role of self-observation in the process of human development.[3] A major part of the development of a person's feelings, thoughts, social roles, etc., according to Kegan, has to do with being able to focus one's attention on one's own feeling, thinking and role performance, etc.

---

[2]Such as those found in the various books and papers of Barnett Pearce, John Shotter, Kenneth Gergen and proponents of systems-oriented family therapy.

[3]Robert Kegan, *In Over Our Heads: The Mental Demands of Modern Life* (Cambridge: Harvard University Press, 1994) and *The Evolving Self: Problem and Process in Human Development* (Cambridge: Harvard University Press, 1982).

The second idea is from Carl Rogers.[4] According to Rogers, we bring our psychological processes and life experience into awareness by symbolization (in words, pictures, music, stories, etc.) The conclusion I draw from the connection of these two ideas is that a crucial element in the process of development is the ability to conceive of and express the development one is trying to achieve.

Such conceptualizations of human development are a part of everyday life in many other cultures (Tibetan mandalas, Navajo sand paintings, Hassidic stories, and devotional chanting in India are examples). But in Western countries the conceptualization of human development is left to a few scholars and researchers. The argument just related strongly suggests to me that the topic of human development is not just for experts: everyone who wants to develop as a person will need to find a way to conceive of their own development, or will suffer for lack of such pictures, songs, stories, etc. The Six Dimensions model is my way of trying to bring my own personal and communicative development into conscious focus. It also might provide one possible example of this process to other people who, like myself, were born into a cultural tradition that is somewhat lacking in visions of human development. (I will present this argument at greater length in Chapter 3.)

1.4. "Dimensions" as ranges of possible actions

The Six Dimensions model is based on the idea of a range of related possible actions. These could be imagined as "menus" (as in computer software), as palettes of colors in painting or as piano keyboards. As we communicate and negotiate our way through life we draw from a wide variety of ranges of possible actions and styles of action. Practically speaking, there are a nearly infinite number of possible sentences, and when you combine those sentences into sequences with body language and different contexts, you have an even larger, nearly infinite, number of possible conversations.[5]

---

[4]Carl Rogers, "A theory of therapy, personality, and interpersonal relationships, as developed in the client-centered framework," in *Psychology: A Study of a Science*, ed. Sigmund Koch (New York: McGraw-Hill, 1959), 239-252.

[5]For a discussion of how a sense of possibility evolves in children and the role that a sense of possibility plays in the lives of adults, see Jean Piaget, *Possibility and Necessity: Volume 1, The Role of Possibility in Cognitive Development* (Minneapolis: University of Minnesota Press, 1987).

Ordinarily we don't think much about exactly what kind of conversation we want to have. We tend to have more of the kinds of conversations we observed and participated in when we were children. I believe that to get better at a given activity, to do something differently, we have to pay conscious attention to how we do it and try to feel out or imagine those other possibilities which we have not yet actualized. To use a visual metaphor, we have to imagine the terrain we are trying to cross.

1.5. Six Dimensions as a map of possibilities

The Six Dimensions model is a map of the possibilities available to us in the process of communication. It is intended to help people think more clearly about what they are trying to learn. To give an example, I have developed a list of about thirty fundamental kinds of conversations, drawing on the work of various communication researchers. In my workshops I ask my students to pair up and explore starting each of those thirty conversations. My hope is that each student will have several "ah-ha" experiences along the way, as they realize that the spectrum of possibilities is wider that they imagined. I believe very strongly that (please forgive all the "p"'s) the process of personal empowerment begins with the perception of positive possibilities. The alternative is to feel trapped in a game in which there are only a few moves allowed. In a recent interview the renown family therapist, Salvador Minuchin, used similar words to describe his lifetime of working with families:

> Theoretically, I do what I have always done. I still look at the way in which the current transactions in a family support conflict. I am always saying to people, in one way or another, *"There are more possibilities in you than you think. Let us find a way to help you become less narrow."* But the ways that I say that today are less dramatic than they used to be . I ask more questions and give fewer prescriptions.[6] (my italics)

[6]Richard Simon, "It's More Complicated Than That: An Interview with Salvador Minuchin," *Family Therapy Networker* 20, no. 6 (November/December 1996): 55.

1.6. Using "dimensions" or "menus" to show meaningful clusters of possibilities

If all this sounds a bit abstract to you, you are absolutely correct. It is abstract, just like algebra. And as Kegan has labored so carefully to demonstrate, human social development involves learning to abstract about living: to see underlying patterns and to propose overarching themes. The abstractness involved in seeing new possibilities is one of the central problems in my work. I want to help people see more possibilities in all the day-to-day negotiations of life, but it is not realistic to expect everyone to learn something as abstract as algebra, no matter how great the benefit might be. How am I going to make the idea of "possibility dimensions" more imaginable?

One response to this challenge that I am currently exploring is to borrow an experience that many people already have and use it as a reference point. That experience is the experience of using menus in computer software. Tens of millions of people around the world are accustomed to using Macintoshes and PC's by 'pulling down' menus of possible actions. Rather than having one long list of all possible actions, software menus show us meaningful clusters of related possible actions.[7] For example, the File Menu in a word processing program will include opening a file, saving it, closing it, etc. The Edit Menu will list actions that affect a particular block of text and will include erase, copy, and move. Building on this familiar experience, I would like people to imagine that the infinite possibilities in conversation can be grouped into six menu-like dimensions of related actions. In a later work I plan to elaborate on this or other possible visual metaphors such as dials on an auto dash board, controls in an airplane cockpit or the multi-layered keyboard on a church organ, but for the present study I will use the idea of a dimension in geometry as a simple metaphor for a range of related actions or experiences. (In a computer-based tutorial, I would be able to let readers choose the metaphor they like best.) The goal of using any of these metaphors would be the same: to help people become more aware of the choices that are available to them, and to present these choices in meaningful groups.

[7] In asking my readers or students to contemplate not simply a list of possibilities, but six different lists, I realize that I am setting before them an abstraction task for which some may not be ready. Cognitive readiness is an unresolved issue in my work. For an extended discussion of this issue see Robert Kegan, *In Over Our Heads: The Mental Demands of Modern Life* (Cambridge: Harvard University Press, 1994).

1.7. Some limits of knowledge and model-building

To map these clusters of related possibilities in communication, I have to ask two fundamental and overlapping questions: "What is going on inside of people?" and "What is going on between people?" My ongoing research as a communication trainer over the last ten years has been to learn as much as I can about the many and varied answers that have been put forth to these two questions up to now. And in the process of doing this I have encountered some of the limits of human knowledge. Four of these limits strike me as being major challenges to my project.

Limit one: no final boundary. The first of these four limits is expressed in a story told by Benoit Mandelbrot, the mathematician who popularized fractals in this century.[8] He presents us with what I would call a wonderful "koan" (in the Zen tradition, a koan is an illuminating riddle). "How long is the coastline of Britain?" It turns out that the closer you look (bays, coves, rocks, pebbles, molecules, atoms, etc.) the longer it gets. Although at first glance one would probably say that the coastline of Britain has some definite length, the length of coastline of Britain is actually infinitely long (if one keeps on making the scale of observation smaller). Or, alternatively, its length depends on how closely you want to look. Neither of these alternatives is all that satisfying to someone (like me) who wants a definite answer.

And, of course, it is not just the coastline of Britain that Mandelbrot is talking about. Many, perhaps all, objects and processes in nature appear to be similarly complex. I read Mandelbrot's story after an intense period of looking for the one right description of human communication, and it helped me to see that human conversations are a part of the infinitely complex world of living systems in which there are no complete descriptions. There is a one word answer the questions "What's going on inside of people and what's going on between people?" The answer is "Everything!" As the evolutionary biologist George G. Simpson commented, the goal of physics is to find one law to explain all phenomena, but biology is one phenomenon to which all laws apply.[9]

Thus, one limit on model building is that no model of a living system can show

[8]See John Casti, *Complexification* (New York: HarperCollins, 1994), 230.
[9]George G. Simpson, *This View of Life* (New York: Harcourt, Brace & World, 1964), 107.

everything at once. Model builders must select the scale of observation and the features they want to emphasize. Also, the idea of showing everything, even if it were possible, does not address the issue of patterns of coherence in the elements of everything. Different goals, in effect, create different angles of vision, which often reveal different patterns of coherence and suggest different models. Thus, it appears that we cannot escape from the knowledge-shaping effects of the goals that motivate our investigations.[10] We can, however, understand our goals better and be more explicit about them.

Limit two: infinite variability. A second limit on our knowledge about conversations is that conversations vary enormously and it is part of the strength of human communication skills that conversations can and do vary to encompass endlessly varying situations. Very rarely, if ever, are two conversations exactly alike,[11] and our conversations probably would not get better if we tried to make them more uniform. Individuals grow, situations change and cultures evolve. This suggests that our knowledge about conversations is not converging on a stable target. (This would be another aspect of the "How long is the coastline of Britain?" riddle. The length of coastline of Britain changes continuously as sandbars form and wash away.) Conversations bend and turn to accommodate changing situations in much the same way that a stream winds its way down a canyon. And like a river rafter, we cannot know in advance the one best action to take, but we might be able to know in advance twenty fruitful actions that we could possibly take, depending on the circumstances.

Limit three: multiple contexts. A third limit on the process of understanding human communication is that, ultimately, there are no independent "parts" in natural systems.[12] Everything depends on everything else. This is certainly true with regard to human interaction, as will be discussed at length in the following chapters. Most of what

[10] For a discussion of the way that desire shapes perception see Robert Ornstein, *The Psychology of Consciousness* (San Francisco: W.H. Freeman, 1972) 37. By emphasizing that different goals may cause us to look at the same subject matter in different ways, I believe that I do not, at this point, need to take a position in relation to the debate concerning whether or not perception is theory laden. I think it is worthwhile to separate the issues of goals influencing our view from the issue of ideas influencing our view. For a discussion of that latter issue see Alvin I. Goldman, *Philosophical Applications of Cognitive Science*, (Boulder, Colorado: Westview Press, 1993) 33-39.

[11] This might happen in institutional settings such as courts of law, but I think you will agree that it would be stretching the definition of conversation to include these interactions as conversations.

[12] See quote from Fritjof Capra at beginning of Chapter Three.

people do in interacting with one another depends for its meaning on a complex web of contexts (conversation, situation, personhood/life journey, community, culture and more). At the risk of making the Six Dimensions model too complex to understand, I have tried to include in the model a preliminary view of the various contexts involved.

Limit four: self-referentiality. A fourth limit to understanding human communication is that it includes self-referential loops that undermine any stable definition. While a rock or a leaf seem fairly immune to my opinions about them, my ideas about myself are a crucial part of my self, and what I think I'm doing and hope to do (my intentions) are a crucial part of my communication with others. This is most acute in situations such as that of a judge who in describing his action, performs his action ("I now sentence you to ten years in prison"), but self-referential loops ("...we are doing such-and-such because that's what we agree we're doing...") are pervasive in human communication.[13] Given that my goal is to facilitate new interaction between people and not to solve logical riddles in the philosophy of language, my response to the problem of self-referentiality has been to embrace it rather than to try to overcome it. Thus I have included self-observation, self-questioning and the clarification of one's intentions as central parts of the Six Dimensions model.

Although I have been humbled by these and other limits of human understanding encountered when one asks "What is going on inside of people?" and "What is going on between people?", I have not given up trying to map the fundamental dynamics of interpersonal communication. What has changed is that I know that I am building a model <u>from a particular perspective</u>, one that emphasizes the points of influence and intervention that would allow people to steer their interactions toward creative cooperation and away from coercion. In the course of my model-building I try to bring those points of influence and intervention to the foreground and let all other information be in the background. The knowledge contained in my model will thus always be less than complete and relative to my goals of facilitating cooperation. (I include a discussion of this <u>primarily facilitative</u> stance at the end of chapter 3.)

[13] For an extended analysis of the role of agreements in the shaping of experience see John Searle, *The Construction of Social Reality* (New York: Free Press, 1995).

1.8. Systems theory as a frame of reference

Many academic disciplines (anthropology, psychology, sociology, biology and more) have provided me with illuminating information about what is going on within and between people. Although the content of the Six Dimensions is drawn mostly from psychology and communication studies, the structure of the model is based primarily on systems theory, so I would like to present a brief overview of that enterprise.

Systems theory has gone through several phases in this century. In the 1920s and 1930s it was an area of interest in biology and medicine about the "whole organism," how the whole organizes the parts through multiple feedback loops, and how the organism relates to its environment. World War II turned systems theory into a branch of engineering called operations research, as scientists applied ideas about feedback to the design of radar-guided anti-aircraft guns; and the mathematical theory of games was used by the Allies in their struggle against the German submarine fleet.[14]

Operations research had become a fad by the 1960s, in which earnest managers divided the flow of everything into inputs, processes and outputs. The weekly body count in the Vietnam war was an example of how an idea with great promise can be taken to horrific extremes. This was the large scale industrial engineering phase of systems theory. The originators of systems theory never gave up on biology, it just took a few decades (in my view) for systems theory to overcome the simultaneously nurturing and distorting effects of World War II. As Gregory Bateson's books became more popular in the 1970s, systems theory entered into its current ecological and psychological phase with an emphasis on the interwovenness and mutual causality observable in families, rain forests and the web of life.

Today's systems theory in psychology is a detailed inquiry into how the pattern of the whole family or organization organizes the roles of various participants. But even here I think it is important not to go overboard with a good idea. I think it is a mistake to conceive of a person as merely an obedient cog in a family system, even if it looks like that at first glance. The truth may be more paradoxical: the whole organizes the parts and the parts organize the whole. That's why often when one person changes, the whole

[14] A summary of this development is given in John D. Steinbruner, *The Cybernetic Theory of Decision,* (Princeton: Princeton University Press, 1974).

family may change. Personally, I think the power is in the paradox. It is in switching one's perspective back and forth between the whole and the part that one sees the way in which natural systems, and families and organizations glue themselves together. (In the interpretation of texts, this is called hermeneutics. It is interesting to me that in our lifetimes, the methods of the sciences and the humanities have been moving in similar directions. That certainly was not true in other centuries.)

One growing edge of systems theory today concerns fractals: mathematical and biological patterns (like the structure of a fern leaf) in which each part contains the pattern of the whole, and the whole and the part can be seen to be expressions of the same pattern. Although I will not be able to explore the idea at length in this study, it appears to me that the same six-armed spiral pattern that is at work in conversations may also be work in projects, relationships and community life.

The original idea of feedback in systems theory has blossomed into the all encompassing idea of self-observation, and even self-creation through self-observation. Instead of "I think hence I am." it is "I observe my thinking processes and myself into existence at the same time!"

Systems theory is far from perfect and often appears to explain everything in general but nothing in particular.[15] One writer insists that it is not a single body of thought at all but only a grab-bag of loosely related ideas.[16] Be that as it may, I find four of those ideas enormously helpful in trying to build a model of human communication.

- **Feedback:** The idea of feedback loops and circular causality.
- **Steering:** The idea of steering a complex process toward a goal or goals.
- **Emergence:** The idea that something new emerges from the complex interaction of the parts or components of a system.
- **Fractal similarity of process:** The idea that the same set of dynamics may be active at many different levels of organization: the cell, the organ,

[15]An example of such criticism is included by Capra in his recent synthesis of systems theory: Fritjof Capra, *The Web of Life* (New York: Anchor Books, 1996), 78.

[16]Charles Francois, "Who Knows What General Systems Theory Is?" *Systems Inquiry Primer Project* (World Wide Web, 1996).

the body, the organization, the nation, etc.[17]

To these systems theory ideas I have added three ideas about facilitative model-building:

A first-person, facilitative point of view. Representative models of communication usually embody the point of view of an outside observer rather that the points of view of the participants. This produces a "How do they communicate?" description. In the Six Dimensions model I emphasize the first person point of view, which produces a "How am I doing this and how could I do it differently?" description. This first person description can be turned into a third person description for purposes of scholarly discussion, but the important point for me is that it must remain possible to shift perspectives back into the first person world of action and embodiment.

Action language. Representative models are full of theoretical entities, hypothetical "things," such as channels, messages, status, power, attitudes, etc. I am convinced that a model intended to facilitate new action needs to be expressed in the language of action: words such as speaking, listening, questioning (verbs) and completely, partially, concretely, abstractly, etc.(adverbs). It is very difficult to translate a third-person "thing" model into a first-person action model. Our models of social and scientific research are largely patterned on the reliable verification of the existence or non-existence of some physical or theoretical "thing." That model does not work very well when we are trying to help a person expand their view of what actions are possible and voluntarily engage in some new behavior.

Visual model making. Many cultures have used geometry and diagrams to represent and understand important aspects of life. Among the most notable examples are Dine (Navajo) sand paintings, Hindu and Tibetan mandalas, ancient Greek mystery teachings centering on geometry, and the designs of cathedral windows. Diagrams are helpful because they allow us to model a complex set of relationships or interactions which would be difficult, if not impossible, to describe using everyday language. My work draws inspiration from these ancient traditions, as well as from architectural drawing and computer programming data flow diagrams.

[17]For a thousand-page manifesto on this point (and the other points as well), see James G. Miller, *Living Systems* (New York: McGraw-Hill, 1978).

1.9. Summary

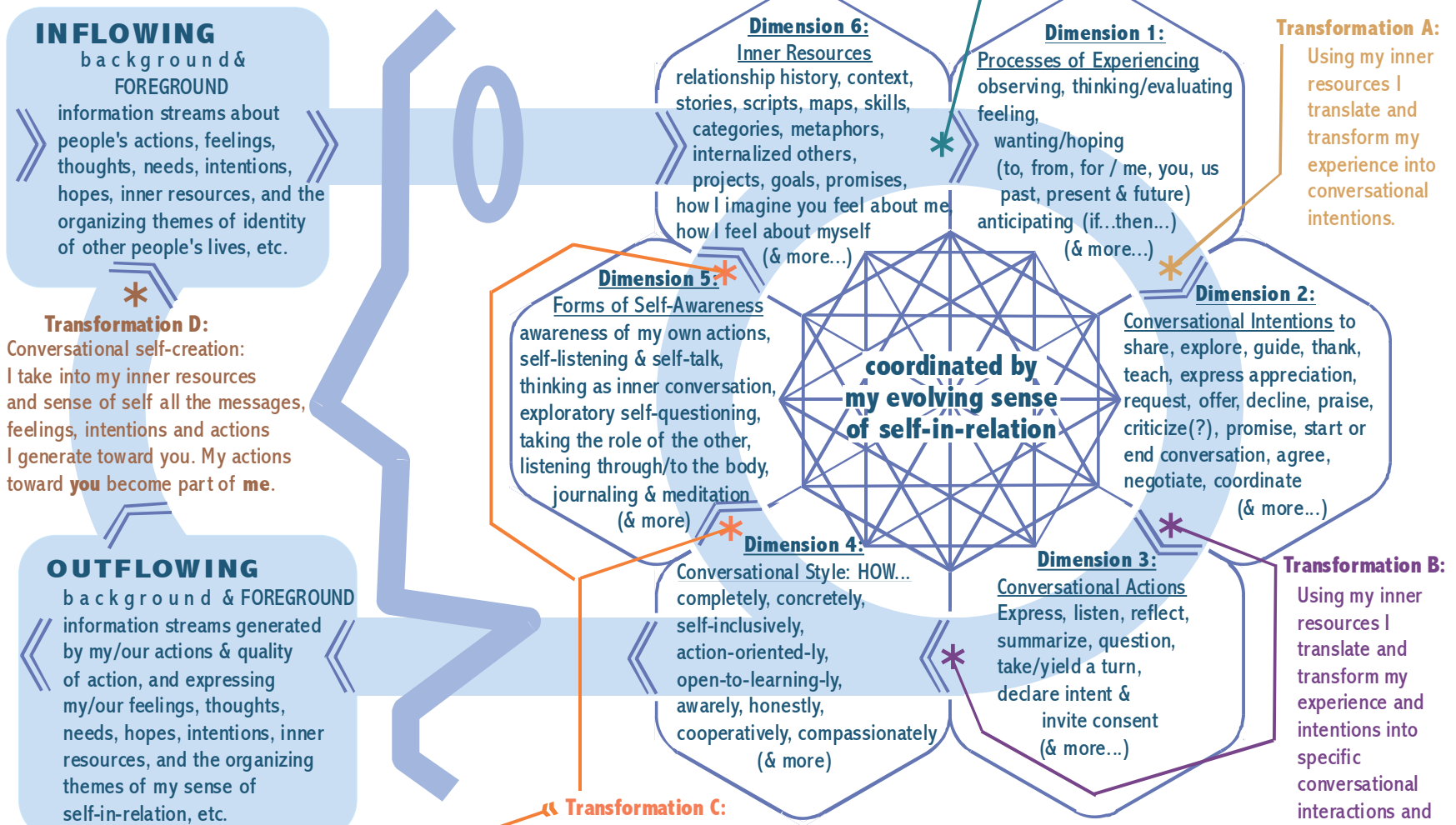
In this introduction I have given a brief overview of my quest for a more facilitative model of interpersonal communication. In general, the more we can observe an activity in which we are engaged, the more we be able to guide it toward success. And to observe a complex process such as interpersonal communication we need a rich vocabulary (to point out what is important), and an organizing map (to show how different aspects work together). The Six Dimensions model represents my effort to develop such a vocabulary and such a map, from the point of view of communication trainers and learners, and using the conceptual tools outlined above. On the next three pages you will find the visual models that tie together most of the information in this book. By starting with the diagrams, I hope that I will serve you better by providing structures to hold the large amount of information presented in the following chapters.

On the day that [the great physicist Richard] Feynman died, the following message was found on his office blackboard: "What I cannot create, I do not understand." What was true for Feynman is true for the rest of us. One of the best ways to gain a deeper understanding of something is to create it, to construct it, to build it.[18]

[18]Mitchel Resnick, "Learning About Life," *Artificial Life*, vol. 1, no. 1-2, spring 1994. (Resnick cites James Gleick, *Chaos: Making a New Science* (New York: Viking Penguin, 1987) as the source of the story about Feynman.)

Figure 1.1. A SIX DIMENSIONS/FIVE TRANSFORMATIONS model of conversation

by Dennis Rivers (for more information, visit www.newconversations.net/geometry_of_dialogue/) Please note that the lettering and numbering schemes used in this diagram are for ease of reference only and are not intended to indicate what comes first. In this view, conversation is a circular process having many important influence points rather than one starting place.



Copyright 2006 by Dennis Rivers. May be reproduced for personal, business, non-profit, & educational purposes, with attribution, under the Creative Commons Attribution-ShareAlike 2.5 License. Please see http://creativecommons.org/licenses/by-sa/2.5/ for details.

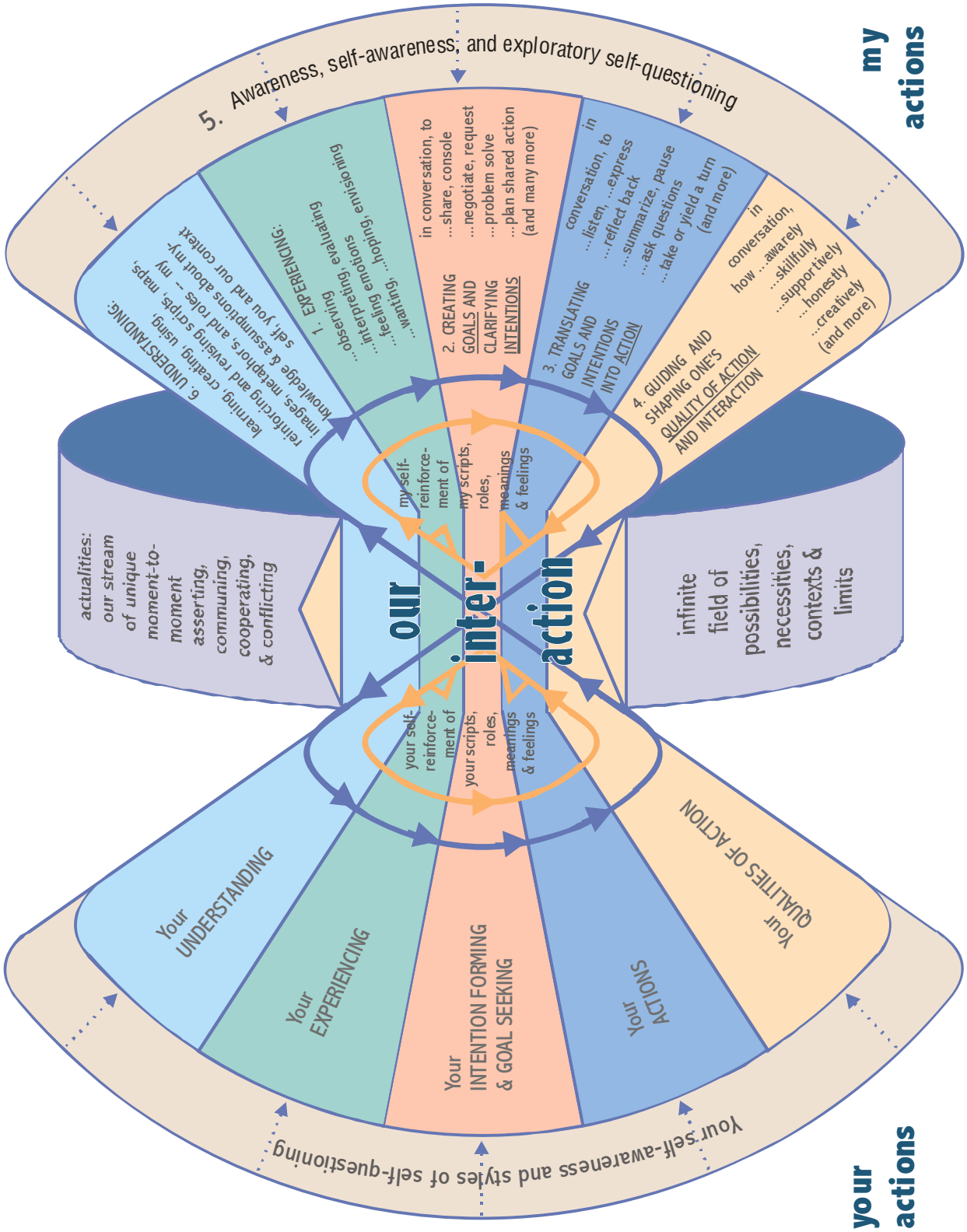


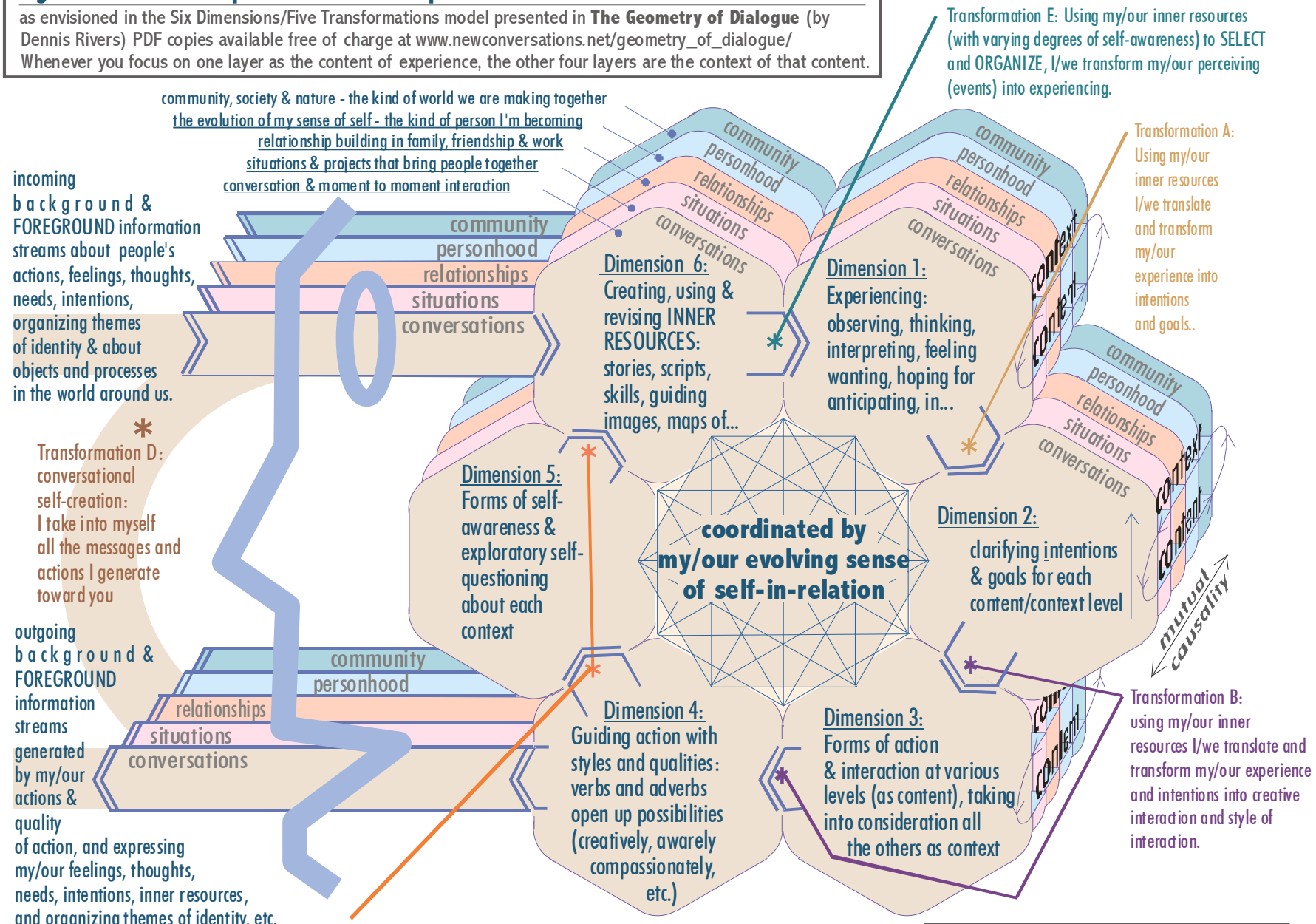
Figure 1.2. Both sides of the dialogue in the Six Dimensions/Five Transformations model

by Dennis Rivers (for more information, visit www.newconversations.net/geometry_of_dialogue/)

Copyright 2006 by Dennis Rivers. May be reproduced for personal, business, non-profit, & educational purposes, with attribution, under the Creative Commons Attribution-ShareAlike 2.5 License. Please see http://creativecommons.org/licenses/by-sa/2.5/ for details.

Figure 1-3. The multiple contexts of interpersonal communication

as envisioned in the Six Dimensions/Five Transformations model presented in **The Geometry of Dialogue** (by Dennis Rivers) PDF copies available free of charge at www.newconversations.net/geometry_of_dialogue/
Whenever you focus on one layer as the content of experience, the other four layers are the context of that content.



Copyright 2006 by Dennis Rivers. May be reproduced for personal, business, non-profit, & educational purposes, with attribution, under the Creative Commons Attribution-ShareAlike 2.5 License. Please see http://creativecommons.org/licenses/by-sa/2.5/ for details.