T H E
FIFTH DISCIPLINE

THE ART AND PRACTICE OF THE LEARNING ORGANIZATION

THE DISCIPLINE OF TEAM LEARNING

DIALOGUE AND DISCUSSION[3]

In a remarkable book, *Physics and Beyond: Encounters and Conversations,* Werner Heisenberg (formulator of the famous "Uncertainty Principle" in modern physics) argues that "Science is rooted in conversations. The cooperation of different people may culminate in scientific results of the utmost importance." Heisenberg then recalls a lifetime of conversations with Pauli, Einstein, Bohr, and the other great figures who uprooted and reshaped traditional physics in the first half of this century. These conversations, which Heisenberg says "had a lasting effect on my thinking," literally gave birth to

many of the theories for which these men eventually became famous. Heisenberg's conversations, recalled in vivid detail and emotion, illustrate the staggering potential of collaborative learning—that collectively, we can be more insightful, more intelligent than we can possibly be individually. The IQ of the team can, potentially, be much greater than the IQ of the individuals.

Given Heisenberg's reflections, it is perhaps not surprising that a significant contributor to the emerging discipline of team learning is a contemporary physicist, David Bohm. Bohm, a leading quantum theorist, is developing a theory and method of "dialogue," when a group "becomes open to the flow of a larger intelligence." Dialogue, it turns out, is a very old idea revered by the ancient Greeks and practiced by many "primitive" societies such as the American Indians. Yet, it is all but lost to the modern world. All of us have had some taste of dialogue—in special conversations that begin to have a "life of their own," taking us in directions we could never have imagined nor planned in advance. But these experiences come rarely, a product of circumstance rather than systematic effort and disciplined practice.

Bohm's recent work on the theory and practice of dialogue represents a unique synthesis of the two major intellectual currents underlying the disciplines discussed in the preceding chapters: the systems or holistic view of nature, and the interactions between our thinking and internal "models" and our perceptions and actions. "Quantum theory," says Bohm, "implies that the universe is basically an indivisible whole, even though on the larger scale level it may be represented approximately as divisible into separately existing parts. In particular, this means that, at a quantum theoretical level of accuracy, the observing instrument and the observed object participate in each other in an irreducible way. At this level perception and action therefore cannot be separated."

This is reminiscent of some of the key features of systems thinking, which calls attention to how what is happening is often the consequence of our own actions as guided by our perceptions. Similar questions are raised by the theory of relativity, as Bohm suggested in a 1965 book, *The Special Theory of Relativity.*[4] In this book, Bohm started to connect the systems perspective and mental models more explicitly. In particular, he argued that the purpose of science was not the "accumulation of knowledge" (since, after all, all scientific theories are eventually proved false) but rather the creation of "mental maps" that guide and shape our perception and

action, bringing about a constant "mutual participation between nature and consciousness."

However, Bohm's most distinctive contribution, one which leads to unique insights into team learning, stems from seeing thought as "largely as collective phenomenon." Bohm became interested fairly early in the analogy between the collective properties of particles (for example, the system wide movements of an "electron sea") and the way in which our thought works. Later, he saw that this sort of analogy could throw an important light on the general "counterproductiveness of thought, as can be observed in almost every phase of life. "Our thought is incoherent," Bohm asserts, "and the resulting counterproductiveness lies at the root of the world's problems." But, Bohm asserts, since thought is to a large degree collective, we cannot just improve thought individually. "As with electrons, we must look on thought as a systemic phenomena arising from how we interact and discourse with one another."

There are two primary types of discourse, dialogue and discussion. Both are important to a team capable of continual generative learning, but their power lies in their synergy, which is not likely to be present when the distinctions between them are not appreciated.

Bohm points out that the word "discussion" has the same root as percussion and concussion. It suggests something like a "Ping-Pong game where we are hitting the ball back and forth between us." In such a game the subject of common interest may be analyzed and dissected from many points of view provided by those who take part. Clearly, this can be useful. Yet, the purpose of a game is normally "to win" and in this case winning means to have one's views accepted by the group. You might occasionally accept part of another person's view in order to strengthen your own, but you fundamentally want your view to prevail." A sustained emphasis on winning is not compatible, however, with giving first priority to coherence and truth. Bohm suggests that what is needed to bring about such a change of priorities is "dialogue," which is a different mode of communication.

By contrast with discussion, the word "dialogue" comes from the Greek *dialogos*. *Dia* means through. *Logos* means the word, or more broadly, the meaning. Bohm suggests that the original meaning of dialogue was the "meaning passing or moving through . . . a free flow of meaning between people, in the sense of a stream that flows between two banks."[5] In dialogue, Bohm contends, a group accesses a larger "pool of common meaning," which cannot be ac-

cessed individually. "The whole organizes the parts," rather than trying to pull the parts into a whole.

The purpose of a dialogue is to go beyond any one individual's understanding. "We are not trying to win in a dialogue. We all win if we are doing it right." In dialogue, individuals gain insights that simply could not be achieved individually. "A new kind of mind begins to come into being which is based on the development of a common meaning . . . People are no longer primarily in opposition, nor can they said to be interacting, rather they are participating in this pool of common meaning, which is capable of constant development and change."

In dialogue, a group explores complex difficult issues from many points of view. Individuals suspend their assumptions but they communicate their assumptions freely. The result is a free exploration that brings to the surface the full depth of people's experience and thought, and yet can move beyond their individual views.

"The purpose of dialogue," Bohm suggests, "is to reveal the incoherence in our thought." There are three types of incoherence. "Thought denies that it is participative." Thought stops tracking reality and "just goes, like a program." And thought establishes its own standard of reference for fixing problems, problems which it contributed to creating in the first place.

To illustrate, consider prejudice. Once a person begins to accept a stereotype of a particular group, that "thought" becomes an active agent, "participating" in shaping how he or she interacts with another person who falls into that stereotyped class. In turn, the tone of their interaction influences the other person's behavior. The prejudiced person can't see how his prejudice shapes what he "sees" and how he acts. In some sense, if he did, he would no longer be prejudiced. To operate, the "thought" of prejudice must remain hidden to its holder.

"Thought *presents* itself (stands in front) of us and pretends that it does not *represent*." We are like actors who forget they are playing a role. We become trapped in the theater of our thoughts (the words "theater" and "theory" have the same root—*theoria*—"to look at"). This is when thought starts, in Bohm's words, to become "incoherent." "Reality may change but the theater continues." We operate in the theater, defining problems, taking actions, "solving problems," losing touch with the larger reality from which the theater is generated.

Dialogue is a way of helping people to "see the representative and

participatory nature of thought [and] . . . to become more sensitive to and make it safe to acknowledge the incoherence in our thought." *In dialogue people become observers of their own thinking.*

What they observe is that their thinking is active. For example, when a conflict surfaces in a dialogue people are likely to realize that there is a tension, but the tension arises, literally, from our thoughts. People will say, "It is our thoughts and the way we hold on to them that are in conflict, not us." Once people see the participatory nature of their thought, they begin to separate themselves from their thought. They begin to take a more creative, less reactive, stance toward their thought.

People in dialogue also begin to observe the collective nature of thought. Bohm says that "Most thought is collective in origin. Each individual does something with it," but originates collectively by and large. "Language, for example, is entirely collective," says Bohm. "And without language, thought as we know it couldn't be there." Most of the assumptions we hold were acquired from the pool of culturally acceptable assumptions. Few of us learn truly to "think for ourselves." He or she who does is sure, as Emerson said long ago, "to be misunderstood."

They also begin to observe the difference between "thinking" as an ongoing process as distinct from "thoughts," the results of that process. This is very important, according to Bohm, to begin correcting the incoherence in our thinking.

If collective thinking is an ongoing stream, "thoughts" are like leaves floating on the surface that wash up on the banks. We gather in the leaves, which we experience as "thoughts." We misperceive the thoughts as our own, because we fail to see the stream of collective thinking from which they arise.

In dialogue, people begin to see the stream that flows between the banks. They begin to "participate in this pool of common meaning, which is capable of constant development and change." Bohm believes that our normal processes of thought are like a "coarse net that gathers in only the coarsest elements of the stream. In dialogue, a "kind of sensitivity" develops that goes beyond what we normally recognize as thinking. This sensitivity is "a fine net" capable of gathering in the subtle meanings in the flow of thinking. Bohm believes this sensitivity lies at the root of real intelligence.

So, according to Bohm, collective learning is not only possible but vital to realize the potentials of human intelligence. "Through dialogue people can help each other to become aware of the incoher-

ence in each other's thoughts, and in this way the collective thought becomes more and more coherent [from the Latin *cohaerere*— "hanging together"]. It is difficult to give a simple definition of coherence, beyond saying that one may sense it as order, consistency, beauty, or harmony.

The main point, however, is not to strive for some abstract ideal of coherence. It is rather for all the participants to work together to become sensitive to all the possible forms of *incoherence*. Incoherence may be indicated by contradictions and confusion but more basically it is seen by the fact that our thinking is producing consequences that we don't really want.

Bohm identifies three basic conditions that are necessary for dialogue:

1. all participants must "suspend" their assumptions, literally to hold them "as if suspended before us";
2. all participants must regard one another as colleagues;
3. there must be a "facilitator" who "holds the context" of dialogue.

These conditions contribute to allowing the "free flow of meaning" to pass through a group, by diminishing resistance to the flow. Just as resistance in an electrical circuit causes the flow of current to generate heat (wasted energy), so does the normal functioning of a group disspate energy. In dialogue there is "cool energy, like a superconductor." "Hot topics," subjects that would otherwise become sources of emotional discord and fractiousness become discussable. Even more, they become windows to deeper insights.

General guidelines for dialogue sessions

William Isaacs, Bryan Smith

THERE ARE NO RULES FOR A DIALOGUE SESSION: INSTEAD, WE OFFER guidelines that may be helpful, based on experiences that people have recorded.

Allow at least two hours, or more if possible, for every session.

"Checking in" is one of the most powerful ways to kick off a dialogue session. At the beginning and end of every session, give every participant an opportunity to simply speak for a minute about what he or she is thinking, is feeling, or has noticed. Stress the value of speaking from personal experience. When everyone knows that they will have some air time, people tend to relax.

Avoid agendas and elaborate preparations; these inhibit the free flow of conversation.

While meeting over a meal may break the ice, we recommend that you avoid the temptation; restaurant service and eating can be distracting.

Agree, as a group, to hold three meetings before you decide whether to continue or disband. Anything less may not be a fair experiment; it can take time to grow into the dialogue form of conversation.

Speak to the center, not to each other. While challenging to execute, this guideline underlines the creation of a pool of common meaning, not interpersonal dynamics.

Dialogue in a business context *Bryan Smith*

NOT LONG AGO, AN AMERICAN CHEMICAL COMPANY HELD A MEETING OF its worldwide distribution network, intending to write a mission statement. One of the first sentences included a phrase about being an international distributor. A soft-spoken executive from Germany named Helmar said, "I want to change the word 'international' to 'global.'" The Americans protested that the two words meant the same thing.

Helmar just looked at the facilitator, also an American, who said, "Apparently they don't mean the same thing. Helmar, would you describe the difference in your mental model?"

Helmar tried but couldn't seem to find the words. At every breath he took, the Americans said, "Well, then, they are the same. Let's move on." Finally, he stepped up to a flip chart and drew a picture of a wheel, with the United States as the hub and all the other nations as spokes. "That," he said, "is 'international.' You people make the decisions. You decide how much product we get. You even push product on us that we don't want and tell us we have to sell it."

Then he drew a picture of "global": a wheel with the company's mission and values at the center. The United States appeared as one spoke among many. "The United States gets one vote," he said.

For two hours they talked about this—not seeking a decision, but trying to grasp the implications of this distinction. Did success overseas really depend on switching from "international" to "global"? The Americans realized, as they talked and listened, that they had systematically hurt their ability to reach markets in other countries, and they couldn't attract talented people in (for instance) Peru or Singapore, because there was no career path for non-Americans involving a stint at the home office. But if the only remedy was a full-fledged switch to "global," could the American executives of the parent company accept the change?

"I agree with you," the most senior manager at the meeting finally said to Helmar. "I want global. I don't know how to practice it or even how to think about it. But we'll continue to talk about it, and to move toward it, until they tell us to stop." He began by initiating new dialogue sessions at the company's worldwide affiliates, in each case agreeing to appear himself to show that he understood the significance of the word "global" in the company's mission statement. This dialogue session became a model for the conversations the company continued to hold among managers at its many locations around the world.

Senge, Peter et al. 1994. The Fifth Discipline Handbook; Strategies and Tools for Building a Learning Organization. Doubleday Dell Publishing Group.