TEACHING HOLISTIC SYSTEMS THINKING

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ABSTRACT

My wife and I got into systems theory by teaching parenting classes in the Inner-City of Winnipeg. We were familiar with the behaviourist paradigm, and found it profoundly destructive. Looking for an alternative we turned to Gregory Bateson and systems theory. So we developed a new course based on systems theory called Families Working Together: Leadership for Parents.

How do you teach holistic systems thinking to adults, specifically teaching parenting to parents with "problem" children in the Inner-City? Holistic systems thinking has three aspects: information and communication, cybernetics or control theory, and holarchy or nested systems. We were striving to empower parents to make decisions on behalf of their family. In our modern individualist world that means learning leadership.

We do live in holistic systems and people have ways of talking about them in a vocabulary accessible to the average person. Holistic thinking means moving up the relationship ladder from object relations (it-it), to instrumental relationships (I-it), to authority relationships (I-you), to negotiated relationships (I-thou), to the family relationships (We), and the larger society and its institutional systems. People are involved at all levels, and shift between levels and have a basic understanding of how to operate in holistic systems. Much of this is unconscious and some of this is explored in the social sciences.

The presuppositions being taught are defined by the questions we ask. e.g. Communication: "Are you speaking the same language?"
- Introduction: List learning goals: "What do you want to learn?" written down on a flip sheet. Outline the lesson plan, "This is where we will be talking about the issue that concerns you." Modeling the group process as negotiation (I-thou), harmonizing the group goals with the goals of the participants.
- First Hour: Sharing: Go around the circle and hear from each family. This helps to define the problem, to provide feedback about what is working and what isn't, and to make people aware of their own decision making power. It also promotes listening skills.
- Second Hour: Content: Each section of the course attempts to reflect communication, control, and holistic thinking at the same time, and to make the theoretical models available at a useful level of abstraction by asking interesting questions. What are people like? How are people different? What are families like? How do you survive emotionally? Then moving on to four essential

leadership skills: looking and listening, problem solving, negotiating, and celebrating. Finally, closing by talking about continuous learning.
At the end we would post their initial learning goals and ask, "Did you learn answers to your questions?" We would use their responses to constantly revise the course.

The course begins at the negotiated relationship level. It is not much use in mechanistic, instrumental, or authoritarian relationships. Leaders must be able to model the things that were being taught. Leaders must be learners. Making the course useful requires a constant process of adapting to specific realities and different cultures.

Keywords: holism, systems thinking, teaching, cybernetics, communication

BACKGROUND

We were in a very specific context. My wife and I got into systems theory by teaching parenting classes in the Inner-City in Winnipeg, Manitoba, Canada. My wife was working as a social worker at a locked facility for teenage girls. The facility had a community outreach program which taught parenting courses. We were familiar with the behaviourist paradigm, and found it profoundly destructive. Looking for an alternative we turned to Gregory Bateson and systems theory. Bateson was a cyberneticist, part of the Macy Conferences on Cybernetics, along with his wife, Margaret Mead. This led to a study of the writings of the other people who had been at that Conference: McCulloch and Pitts, Norbert Wiener, Arthuro Rosenbluth, Claude Shannon, and later theorists like Jay Wright Forrester and his System Dynamics, and Arthur Koestler and his holistic systems.

None of these models fit what we were trying to do. We wanted to build a course from the basic principle that children are people, and that people make their own decisions. This required creating a new model of the cybernetic decision system. This involved a different take on the communication process, understanding it as a process of translation. Since many of the problems of the families involved interactions with government institutions we had to develop a more holistic view based on Arthur Koestler's work and integrating it with the cybernetic idea of control.

So we developed a new course based on systems theory called *Families Working Together: Leadership for Parents*; and we wrote two books together: *Empowerment: A Systems Approach to People and Groups*; and *The Family Zoo: From Technology to Ecology*.

ISSUE

We were addressing a very specific issue. The parents came to the course because their children were "problems." This is interpreted to mean that the children are out of control,

and the parents need to find some way to control them. The parents are usually looking for some trick, or technique, or technology that will allow them to control their children. The usual answer of mechanistic reductionism is to drug them into submission, arguing that children's behaviour is merely a chemical reaction in the brain, and any behavioural problem can be solved with the appropriate chemicals.

So the topic we were addressing was how to teach holistic systems thinking to adults, specifically teaching parenting to parents with "problem" children in the Inner-City. Holistic systems have three aspects: information and communication, cybernetics or control theory, and gestalt or nested systems. The difficulty is replacing the social indoctrination in mechanistic reductionism with a more realistic understanding of systems. Thus it is shifting from viewing a world made up of isolated individuals where systems do not exist to a recognition of the reality of systems of cooperation and communication; to shift from a view of communication as a force violating individual boundaries to a view of communication as a process of harmonizing; and to shift from a view of control as violent force to a view of control as information and decision making; and to do all of this in a vocabulary accessible to the average person. This last part is not that hard a problem since we do live in holistic systems and have long had ways of talking about them.

The meaning of empowerment is giving someone the authority to make decisions on behalf of the group. We were striving to empower parents to make decisions on behalf of their family. In our modern individualist world that means learning leadership. One of the primary functions of parents is to acculturate their children. In an individualistic world that means helping them become functioning individuals. In most other cultures that means helping them become functioning members of the family. Thus facilitating the course is modelling group building and the leadership skills needed to unite a group of unique individuals.

RESOLUTION

How did we attempt to solve the problem or issue?
The model that is taught in our society is the mechanistic reductionist model. Everything stays the same until it is forced to change. Therefore change is only accomplished by force, or "pressure." Control systems are seen as the application of force. The goal of the course is helping people shift to a cybernetic concept of control as communication and decision making.

Teaching is about teaching presuppositions, and the presuppositions are defined by the questions we ask. Thus the questions that we asked presupposed a cybernetic systems approach to the problem.

Communication: We could introduce the idea of the information process as a translation process by asking "Are you speaking the same language?" This frames the discussion in terms of the meta-language, since you are talking about language, and also presupposes that the purpose is harmonizing.

Cybernetic Control: A cybernetic feedback system is an information process and consists of four processes: an environmental focus that is to be controlled, a model that translates changes in the environment into perceptions, a set of values that evaluates the perceptions, and a set of options that can be chosen to act on the environment and effect changes. These are four steps in the decision making process. We were concerned with empowering people. In a cybernetic process power is the ability to make a decision. We would normally refer to the three internal processes as head, "What do you think?" heart, "How does that feel?" and gut "What are your options?, and feedback as the simple question "How's that working for you?" It is a short step then to talk about children's goals.

Holistic Systems: The concept of nested holarchies is simply assumed when we talk about the family, and the society. Even a hard line ideologue like Margaret Thatcher who denied the existence of society was willing to admit the existence of the family. Because these are easily understood it is a short step to discussing the models, values, and options of the group and the roles people assume within the group.

PROCESS

Since a cybernetic model assumes that people are self-controlled and have their own purposes and goals it fits easily with an adult education model that assumes adults have their own learning goals, and they will learn what they want to learn, and not what you want to teach. The listen-memorize-regurgitate model used in universities does not work with adults unless you begin with a process of institutionalization. Thus, the first step was to do a list of the learning goals of the participants. The advantage we had was that we were dealing with a specific real life problem, and people highly motivated to learn.

We asked, "What do you want to learn." We wrote the answers down on a sheet. The way that people phrased their learning goals would also reveal their presuppositions. We then outlined the lesson plan, and explained the connection of the lesson plan to the participants' learning goals. "This is where we will be talking about the issue that concerns you." This was modeling the idea that a group process consists of harmonizing the group goals with the goals of the participants.

The First Hour

The design of the course was that we would spend the first hour of each session going around the circle and hearing from each family. There is a certain amount of shame in talking about problems in parenting, and the sharing by the group could allow the participants a sense that they were not alone. It was therapeutic just to share. But also it helped to define the problem.

One of the important functions of the opening hour was that it allowed for distancing, and for feedback. Talking about what was happening in the family allowed parents to see it from a distance. Behavioural change happens at the meta-level. We must become aware

of the models, values and options in use before we can decide to change them. What are you thinking, feeling, considering doing? Talking about what was happening in the family was feedback that made it possible to see what was working and what wasn't.

The first hour is also a point where people can admit that what they are doing isn't working. It is very hard to get people to the point where they will consider change. "Don't ask me to change. Get them to change." The mechanistic reductionist model creates a victim mentality. Since everything that happens is the result of outside forces, people have no responsibility, and no hope.

The other thing that the first hour did was to promote listening. We were working on shifting the idea of communication from the force model, to a harmonizing model. The mechanistic model sees communication as firing projectiles that will have "impact," or that will "penetrate" the other person. Thus when I went to school hitting people with straps was a favourite method of "communication." Bombing cities and killing people was considered an effective way to "send a message." In the information model communication is about harmonizing. Effective communication is when the message received is the same as the message sent. But the information process is a process of translation. The receiver has to translate the symbols into the same context the sender was using. To communicate you have to speak the same language. Thus the first step in communication is to listen. Thus the first hour becomes an exercise in effective listening.

The Second Hour

The second hour was devoted to course content.

Holistic thinking means moving up the relationship ladder from object relations (it-it), to instrumental relationships (I-it), to authority relationships (I-you), to negotiated relationships (I-thou), to the family relationships (We), and the larger society.

The mechanistic reductionist model sees all relationships as object relationships (it-it). Behaviourism sees the relationship as instrumental (I-it). The parent is the subject (I). Children are objects (it) to be manipulated by the impact of stimuli. To understand the subject as agent we have to move to cybernetic models.

Cybernetic thinking means understanding systems as agents, as decision making systems. Power is the ability to make decisions. Decision making involves four processes: act, sense, evaluate, choose. These processes are programmed by models, values, options, and the environment. The cybernetic model involves understanding that these programs are themselves choices. We can choose our models, our values, and our options and to some extent our environment.

Moving to the authority model (I-you) means moving to a communications system view. Communication thinking means seeing the cybernetic process as an information and communication system. Ideas control behaviour. Therefore change comes from communication. This means seeing relationships in terms of harmonizing.

Moving to the negotiated level (I-thou) means being able to see the other person as a decision making person. And this means that they too operate with models, values and perceived options, in their perceived environment. And they too make decisions about their models, values, options and environment.

Moving to the family level (We) means seeing the family as a whole as having family models, family values, and family options, and allows us to think of the family environment as nested in the larger control systems of society and nature. In Winnipeg this meant understanding many of the families as living in the native culture or the Filipino culture.

Of course people are involved in all levels, and shift between levels and have a basic understanding of how to operate in holistic systems. Much of this is unconscious and some of this is explored in the social sciences. The goal of the content was to make the theoretical models available at a level of abstraction that was useful.

Each section of the course attempted to reflect all of these ways of systems thinking at the same time.

- *What are people like?* Communication: People communicate. The goal of communication is harmony. We want your ideas to be in harmony with my ideas. Ideas are historical. Parents learn from their parents. What do you think of how your parents raised you? Cybernetic: People are control systems, they have goals. Kids are people so they have goals too. Everyone tries to control their environment. They have a mental model of how the world works, basic values and goals, and a set of skills for acting on their environment. Holistic: But the purpose is to build a family with shared goals and values, a family culture, and a family method of doing things, so that they can act together cooperatively.
- *People are different.* Communication: People have different ideas and different languages. Communication always requires working at finding a common language. Cybernetics: People have different personalities: The enneagram with its three fold division of head, heart and gut, matches to the cybernetic: sense, evaluate, choose. Holism: Families relate to different cultures, different laws, and different lands.
- *What are families like?* Communication: A family is about communication. How do people communicate? Do they share? Do they understand one another? Cybernetic: The family is a control system. It is attempting to control the environment and the members to achieve family goals. Food, clothing, housing, etc. Holism: The family is a whole with family qualities. How do family decisions get made? Does the family have a realistic or unrealistic view of the world? Are family values functional or dysfunctional? Is the family atmosphere encouraging or discouraging? Do people cooperate or fight?
- *How to survive: Letting go*. In working with families the primary problem was emotions. We found people were overwhelmed with feelings of fear, guilt, depression and anger. To give people a sense that they could control their feelings

we used the cybernetic frame. Feelings are the product of perceptions and values. Thus we can choose our perceptions and choose our values and those choices will produce different feelings. Thus fear is a negative evaluation of a perception. Blame, guilt, and shame are judgments of our perceptions of people and ourselves. Despair is a feeling of being trapped with no viable options. Anger is attempting to cope with despair by lashing out, sometimes referred to as male pattern depression.

Each feeds into the other in a continuous loop of fear, blame, despair, anger. We found that negative emotions formed a cycle. People would move from one negative emotion to another, as though it would solve the emotion. Fearful people would shift to blaming themselves. Guilty people would become depressed and hopeless to escape the guilt. Depressed people would get angry at others to relieve the depression. But living in a world of evil people is a very frightening thing. The negative emotions would just reinforce each other. Each person had their habitual spot, their preferred negative feeling.

- *How to survive: Hanging on*. Rather than move around the negative circle, it was necessary to move to a positive circle that would reinforce positive emotions. The alternative is faith, love, hope and joy. Fear is a negative view of the world. Faith is a positive view of the world. Guilt is blaming others. Love is forgiving others. Depression is feeling trapped. Hope is having some possibilities. Anger is a way of being in the world. Joy is the alternative way of being in the world.

    Since each is a reinforcing cycle, you have to move from one cycle to the other, and that can be done at any of the four points. Fear to faith, blame to love, despair to hope, and anger to joy. By changing our models, our values and our options, we can choose to look at the situation as having a positive future. We can judge ourselves and others with love. We can find elements of hope, in small areas that we can control. We can celebrate life, and the positive things we are grateful for.

Leadership has four skills: looking and listening; problem solving; negotiating; celebrating.
- *Looking and listening:* Communication: Listening involves giving your full attention, and asking open ended questions with an emphasis on harmonizing: becoming less sensitive to criticism; agreeing with unpleasant truths; agreeing with half-truths; and listening for common goals. Cybernetics: We tend to see what we expect to see but we can choose what we see, and looking for the positive can turn negatives into positives. Holism: Gestalt psychology has an holistic emphasis in that the meaning of an individual part is in its relationship to the whole, thus in the classic figure/ground gestalt image we can see either a vase or two faces. What we see is a function of which we choose as the figure and which as the ground.
- *Problem solving*. The cybernetic loop is also the problem solving loop. Sense, evaluate, choose act, sense. You help problem solve in the same way: Listen to find out what's happening, clarify goals, identify manageable tasks, cooperate, listen. Holism: Problem solving often involves gaining the cooperation of social

institutions like the school or the welfare office or Child and Family. Start with what can be done.

- *Negotiating*. Cybernetics: Negotiating is a form of problems solving, but the focus is on building a group decision: common view, common values, common decision, common action. Listen, persist at clarifying goals, explore alternatives, contracting, see what works, adapt. How to referee a fight. Holism: Resolving a fight usually involves calling on a higher authority with an appeal to common understanding, common values, common rules or a common enemy.
- *Celebrating*: Leaders celebrate identity (birthdays, anniversaries), shared values (victories, accomplishments), gifts and talents, parties. Sharing sorrow. A family mourns together sharing grief, guilt, depression and anger, and finding faith, responsibility, persistence, and gratitude. The family grieves and shares with the larger community including the faith community.
- *Keep on Learning*: We are constantly changing. There is head learning where we get new ideas, gut learning that comes from practice and experiment, and heart learning that comes from models and peers and associations. The organic strategy is: Start small and grow.

CONSEQUENCES

What results, implications and limitations does your solution have?

Results: At the end of the class we would bring out the sheet with their initial learning goals and ask, "Did you learn answers to your questions?" The results for the participants were measured by the participants. If they thought that they had learned something or if they felt more a peace with being a parent then we considered that a good result. Their responses would allow us to assess the course. We would later debrief and use their responses and our own experience to constantly revise the course. My favourite response was "I'm asking different questions now." People were encouraged on a self-directed path of learning.

Limitations: We were dealing with highly motivated adults. The course begins at the negotiated relationship level. It is not much use in instrumental and authoritarian relationships.

It is a learning model. Each family faces a different environment, and has different models, values and skills. Thus making the course useful was a constant process of adapting to the specific realities. It is not a one size fits all process.

We insisted that the people who taught our course would have to be parents themselves. The leaders would have to have a real life experience of the problems facing the participants. There are some things you can't understand unless you have had the experience. But the leaders must also be able to model the things that were being taught. Recent graduates tend to come out of the hierarchical authoritarian structure of the university with listen-memorize-regurgitate models of learning, and are bound and determined to teach the "science" of behaviourism which just does damage One of the serious problems we faced in Winnipeg was that in working with aboriginal people, it

was necessary both to recognize the aboriginal heritage, and the damage that had been done to the native family structure by the Residential School system and its policy of colonization. Making the course useful requires a constant process of adapting to specific realities and different cultures.

CONCLUSION

We found that you can teach holistic systems thinking to ordinary people in ordinary language. The sensitivity that is needed in dealing with different situations and different cultures is inherent in the holistic systems model. But there is resistance from authoritarian structures that are looking for a mechanistic model. We eventually closed down because of the difficulty of getting funding from governments and social agencies, and turned to working on literacy and the anti-poverty movement.