



Patterns

Newsletter of the American Society for Cybernetics

Fall 2007

From the Editor:

This issue of PATTERNS began as a way to show how the model of pathogenic systems introduced by Kathy Long in the Winter 2007 issue of PATTERNS might be useful in understanding the current "health industrial system" in the United States. "The Battle of the Bulge," focuses on the so-called "obesity epidemic." Building on her article, *Dancing with Demons*, in which she provided a perspective based on the work of Gregory Bateson and Heinz VonFoerster that encourages the possibility for positive social change in the Criminal Justice System, we found ourselves caught up into more and more projections of this useful triadic model onto other dysfunctional systems we see around us.

For example, we were struck by the following observations of Luis Lema, writing for Geneva's "Le Temps," in which he deconstructs the September 11 U.S. Congressional "hearings" on Iraq and their implications for American democracy titled, "A Strange Debate." (www.truthout.org/docs_2006/091307G.shtml)

He writes;

"The war in Iraq was already disastrous and deadly, but the situation has become almost surrealistic in recent days. Here it's been nine months since the Americans reinstated the Democrats in control of Congress with this single message: Put an end to the tragedy, bring "the boys" home first thing! Now, although the whole political week in Washington will be devoted to this question, few are those who would have predicted that it would turn out this way. It's not the establishment of a schedule of withdrawal that has become the topic of discussions in Congress, but rather the effectiveness or lack thereof of the additional reinforcements deployed in Baghdad in the meantime.

Even more astonishing: It's not the politicians who are leading the dance (most of them have been discredited on the subject), but the military. Gen. David Petraeus, commander of the forces in Iraq, who has not been elect-

(continued on next page)

The Battle of The Bulge

The Obesity Epidemic as a Pathogenic System

by Kathleen S. Long

This article applies the concepts outlined in "Dancing With Demons: Pathogenic Problem Solving," a paper presented at the 2006 ISSS Conference and summarized in the Winter 2007 Issue of Patterns. That paper, illustrated with an example from the criminal justice system, concerns the way in which we define and address some of society's acute and intractable problems and presents a new framework for thinking about them. In this article, I continue the discussion, presenting the escalating problem in the US of overweight and obesity as a pathogenic, autopoietic¹ system. Rather than focusing on the shortcomings of individual and collective actors, I re-contextualize this problem drawing boundaries on the basis of systemic operations and conditions of connectivity across intersecting roles related to the intrinsic triad comprised of the problem solver, the problem host and the problem itself. In this view, we can see the emergent meta-problem in which the operations of the system, despite well intentioned efforts, routinely increase the prevalence, scope and severity of obesity. Second-order cybernetics provides an anchor for this framework which exposes those factors which trigger, reinforce and escalate the problem of obesity. The resulting model of pathogenesis manifests as iterative, nested interactions extending from a single individual to society. This article examines the underlying mechanics of this system as it relates to the growing problem of overweight and obesity, and proposes a different perspective from which we can construct new methods to reverse this alarming trend.

Overweight and obesity have reached epidemic proportions in the US. About two-thirds of adults in the United States are overweight, and almost one-third are obese². Experts are now predicting that "fat will be the norm by 2015" - with 75% of US adults being overweight³. Although prior studies show it took 30 years for overweight prevalence to double, current studies show doubling time to be less than 12 years.^{4,5}

Consider this:

1990: 56% of Americans were overweight (23% were obese)

2000: 64% of Americans were overweight (30% were obese)

At this rate

In 2010: 73% overweight

In 2020: 84% overweight

In 2030: 96% overweight

According to National Institute of Health (NIH), between 1980 and 2002, the number Aof overweight children doubled and the number of overweight adolescents tripled.⁶

These statistics are significant because, the 1980's marked the beginning of a boom time for the weight-loss industry when doctors declared that obesity was not only a cosmetic disadvantage but a health risk as well. A host of health providers and com-

(continued on next page)

INSIDE

Battle of the Bulg.....	1
From the Editor.....	1
Towards a Future We Desire?	5
The Cybernetics of Sanity	8
Paskian Art Research.....	10
Margaret Mead	11
ASC News	13

Editor: Barbara Vogl
bdawesvogl@yahoo.com
Logo Design: Pille Bunnell
pille@interchange.ubc.ca

Design Consultant: Rhan Wilson
rhanw@rhanwilson.com

From the Editor: (continued)

ed. But these discussions center on his assessment. As though the institutions of American democracy had proved inadequate. As though, in the absence of finding a way out, everyone was focusing on the medal-covered torso to turn it alternately into a reassuring wall of protection or a convenient outlet. George Bush has a clear goal. To maintain as strong an American presence as possible in Iraq up until the end of his term. His veto power is his trump card. He has brought the game onto his ground. And the ground is clogged up: The threads he has woven like a spider's web prevent anyone from moving freely. What remains the most terrifying and outrageous is the date chosen to conduct the discussion: September 11, the day of mourning for America. Six years later, a forced connection between the attack against the twin towers and the invasion of Iraq is emphasized once again. That's more than a surprise. It's an insult to the truth."

(Translation: Truthout French language editor Leslie Thatcher.)

This may seem a digression from the original intent for this issue but we want to emphasize that learning to think holistically, looking for the patterns which connect, and the importance of observing how we are observing, might prevent the sense of helplessness, or sense of outrage, or depression demanding huge doses of Prozac (thus contributing to our "health industrial system") ... you name it. All these personal feelings are coming to the surface when we are involved in systems that don't seem to be doing what we always thought they were supposed to do.

Whether we look at current health systems, criminal justice systems, or political systems, the message of this issue of PATTERNS is that if we want to understand the importance of Cybernetics as a method for gaining more useful information that would help us in these troubling times, it is important to become aware that the manner of observing influences that which is observed.

Sound outrageous? Yes, but in looking at a system like the United States health system, and asking, what are all the possible behaviors that this system can produce in relation to corresponding system's needs, it radically changes the system we are observing. This is illustrated in the book, Introduction to Cybernetics, by W. Ross Ashby (John Wiley & Sons, Inc. N.Y. 1963). He comments that "Cybernetics envisages a set of possibilities much wider than the actual, and then asks why the particular case should conform to its usual

(continued on next page)

The Battle of the Bulge (continued from page 1)

panies hurried in with "cures" for the new disease⁷. After more than twenty years of "battling the bulge", we are fatter than ever and the weight-loss industry continues to boom.

If the purpose of a system is "what it does," then the purpose of this system is to create an obese population.

There is little doubt that Americans are frantic about being overweight. A 2006 marketing study⁸ revealed, "With no end in sight for America's obesity problem, demand remains strong for all kinds of weight loss programs, fueling a \$55 billion U.S. industry, which is expected to reach \$58 Billion in 2007 and \$68.7 billion by 2010." The direct and indirect costs associated with obesity are staggering. As it continues its upward spiral, obesity brings with it a host of related health problems including diabetes, hypertension, heart disease, stroke, and cancer. In addition to physical health problems, there is increased psychological risk for depression and other mental health disorders. Obese children, teenagers and adults comcompanies hurried in with "cures" for the new disease⁷. After more than twenty years of "battling the bulge", we are fatter than ever and the weight-loss industry continues to boom.

There is little doubt that Americans are frantic about being overweight. A 2006 marketing study⁸ revealed, "With no end in sight for America's obesity problem, demand remains strong for all kinds of weight loss programs, fueling a \$55 billion U.S. industry, which is expected to reach \$58 Billion in 2007 and \$68.7 billion by 2010." The direct and indirect costs associated with obesity are staggering. As it continues its upward spiral, obesity brings with it a host of related health problems including diabetes, hypertension, heart disease, stroke, and cancer. In addition to physical health problems, there is increased psychological risk for depression and other mental health disorders. Obese children, teenagers and adults face a heavy social stigma which can lead to marginalization." Moreover, growth in obesity and spending on obese people accounted for 27 percent of the growth in inflation-adjusted per capita health care spending between 1987 and 20019. As spending continues to rise, there is no evidence to suggest the obesity problem is abating. In fact both the problem and its associated costs are spiraling. Considering only the health burden of diabetes brought on by overweight, projections are particularly alarming with a 225% increase in diabetes projected between 2000 and 2050¹⁰. As secondary to diabetes, heart disease, high blood pressure, stroke, blindness, amputation and renal disease, therefore will increase. The cost in dollars is in the billions. The cost in human suffering is immeasurable.

We blame ourselves, spending more than \$35 billion a year on weight loss products¹¹. We blame the food industry's corporate influence, including how fast food encourages poor nutrition for its own profit¹². We fault the weight loss industry for exploiting des-

(continued on next page)

References

- ¹ Wikipedia <http://en.wikipedia.org/wiki/Autopoiesis>
- ² WIN - National Institute of Health Statistics related to overweight and obesity <http://win.niddk.nih.gov/statistics/index.htm>
- ³ Youfa Wang, and May A. Beydoun The Obesity Epidemic in the United States, Gender, Age, Socioeconomic, Racial/Ethnic, and Geographic Characteristics: A Systematic Review and Meta-Regression Analysis Epidemiologic Reviews Advance Access published on May 17, 2007 <http://epirev.oxfordjournals.org/cgi/content/short/mxm007v1>
- ⁴ National Center for Health Statistics. Chartbook on Trends in the Health of Americans. Health, United States, 2006. Hyattsville, MD: Public Health Service. 2006.

(references continued on next page)

The Battle of the Bulge (continued from page 2)

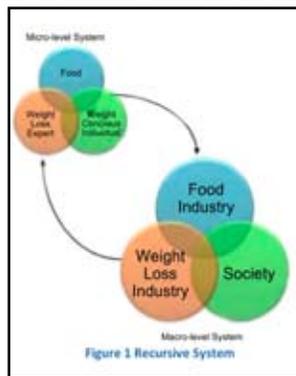
perate dieters with false and misleading claims in weight-loss ads¹³. We fault the media and fashion industry for portraying unrealistic role models¹⁴ engendering eating disorders such as anorexia nervosa and bulimia to lose weight. We blame the government for imposing continuously tightening standards. For example in 1985 a person was defined as obese if their BMI (body mass index) was above 27.5. 15 A couple of years later the threshold was lowered to 25 making millions of Americans obese with the stroke of a pen¹⁶. There are abundant culprits and a plethora of “cures”, and we are in worse shape than ever.

Obviously, over recent decades our methods for understanding and resolving this crisis have failed us. By focusing solely on individual elements in this complex system, we have obscured the powerful systemic patterns that would otherwise illuminate the escalating dance of interacting parts in this pathogenic system¹⁷. I use the term pathogenic dance¹⁸ to describe the behavior in problem-solving systems which, despite the good intentions of individual actors actually increases the problem in prevalence, scope and severity. Obesity is the manifestation of a complex pathogenic system. It is a problem woven of environmental, genetic, behavioral, physiologic, cultural, social and economic factors. In this case, obesity is not the problem, but a product of this pathogenic dance cascading recursively from an individual to an entire society. Like other pathogenic systems, the design is emergent and the result is an increase in the size, scope and severity of the problem - in this case obesity. Stated differently, if the purpose of a system is “what it does”¹, then the purpose of this system is to create an obese population. Sound preposterous? Systems have their own intelligence. Although we yearn for the simplicity of a conspiracy or a culprit to hold responsible, it is unlikely that there is a master architect. The powerful dynamics in this system are self-generating and self-regulating with all attempts at change producing only a temporary remission, before rebounding. Indeed, dieting is associated with a high rate of recidivism referred to as yo-yo dieting. Over the long term in the vast majority of persons, regardless of the weight loss method used¹⁹, the system will rebound. Maintenance of weight loss is the most difficult part of any weight management program.

To produce lasting change, we must understand the mechanics of this recursive system, including the three key interacting, functional elements and their dyadic relationships that drive it. Like Chinese nested boxes, recursive systems contain and are contained within systems similarly organized.

I use the following terms: “*problem*” (blue circle), “*host*” (green circle) and the problem solver or “*expert*” (orange circle) to refer to the three intersecting elements in a pathogenic system. (See figure 1) At the micro level of recursion, this entire system can manifest in a single individual, as is the case in this example, with three elements: the “*problem*” itself (Food), the weight-conscious individual (WCI) or “*host*” of the problem, and a weight loss “*expert*” (WLE) we engage to help us. Together they form a triad with the

(continued on next page)



From the Editor: (continued)

particular restrictions.” We see a technologically more complex health industrial system which is becoming dysfunctional in relation to human needs within present traditional restrictions.

In 1963 Ashby writes of the scientific recognition of complex systems which are so dynamic and interconnected “that the alteration of one factor immediately acts as cause to evoke alterations in others, perhaps in a great many others. Until recently, science tended to evade the study of such systems, focusing its attention on those that were simple and, especially, reducible.

“In the study of some systems, however, the complexity could not be wholly evaded. The cerebral cortex of the free-living organism, the ant-hill as a functioning society, and the human economic system were outstanding both in their practical importance and in their intractability by the older methods. So today we see psychoses untreated, societies declining, and economic systems faltering, the scientist being able to do little more than to appreciate the full complexity of the subject he is studying.”

Ashby goes on to say that today, ‘complexity’ is a scientific subject in its own right and that “*Cybernetics offers the hope of providing effective methods for the study and control of systems that are intrinsically extremely complex. It will do this by first marking out what is achievable (for probably many of the investigations of the past attempted the impossible), and then providing generalized strategies, of demonstrable value, that can be used uniformly in a variety of special cases. In this way it offers the hope of providing the essential methods by which to attack the ills, (psychological, social, economic) which at present are defeating us by their intrinsic complexity.*”

On page 8, **Philip Lewin** continues this exploration of the shift in perspective offered by the new Science of Cybernetics in his contribution, “The Cybernetics of Sanity”

In these times of turmoil, terror, transitions...you name it.... Lewin “*seeks to demarcate an orientation toward the world that appears to be incomprehensible, maladaptive, unhealthy, pathological, delusional, or in some other way is out of keeping with an assumed, commonly-shared experience of how-the-world-is.*” He adds, “For those of us, however, who take our cybernetics seriously and maintain that there is no such simple and transparent thing

(continued on next page)

⁵ Epidemic Increase in Childhood Overweight, 1986-1998 JAMA 286:2845-2848 (2001)

⁶ Carol Torgan, Ph.D. Childhood Obesity on the Rise <http://www.nih.gov/news/Wordon-Health/jun2002/childhoodobesity.htm>

⁷ Elizabeth Rosenthal New York Times, July 16, 2007 Commercial Diets Lack Proof Of Their Long-Term Success <http://query.nytimes.com/gst/fullpage.html?sec=health&res=9E0CEFDE1030F937A15752C1A964958260>

⁸ Marketdata Enterprises, Inc. The U.S. Weight Loss and Diet Control Market (9th edition) April 1, 2007 389 Pages - Pub ID: RF1475489

⁹ Kenneth E. Thorpe, Curtis S. Florence, David H. Howard, and Peter Joski October 20, 2004 Health Affairs, the policy journal of the health sphere The Impact Of Obesity On Rising Medical Spending <http://content.healthaffairs.org/cgi/content/full/hlthaff.w4.480/DC1>

(references continued on next page)

as ‘how-the-world-is,’ the judgment that someone else has got it fundamentally wrong places a special onus upon us.”

With this in mind we have included a commentary from Lucas Pawlik, well-known to readers of PATTERNS (see www.haven.net/patterns/ for an index of past issues) He shares his thoughts on the founders of second order cybernetics and his experience with Heinz Von Foerster. He describes how the cybernetic perspective contributes to our natural freedom and suggests that the “Cyberneticians of the world unite,” coming together in ongoing dialogue in order to create a future we desire. (see p. 5)

We gain hope from the growing number of all those around the world who are involved in what Systems Scientist, Joanna Macy calls “The Great Turning.” (See www.joannamacy.net)

And we gain hope from those who are re-cognizing the process through which we humans are truly experiencing our connectedness. (See the upcoming Winter 2008 issue of PATTERNS focusing on Science and Spirituality.)

.....

“In times of change, learners inherit the earth, while the learned find themselves beautifully equipped to deal with a world that no longer exists.”

Eric Hoffer

“Making mental connections is our most crucial learning tool, the essence of human intelligence: to forge links; to go beyond the given; to see patterns, relationships, context.”

Marilyn Ferguson

“When old words die out on the tongue, new melodies break forth from the heart; and where the old tracks are lost, new country is revealed with its wonders.”

Rabindranath Tagore

The Battle of the Bulge - (continued from page 3)

boundaries drawn at the interface where the synergy in their interaction is represented by the shaded portions between the circles. At a macro recursion the roles become collective, as the “*problem*” (Food Industry), the “*host*” of the problem (Society) and the “*expert*” (Weight Loss industry) As we examine complex living systems, we must consider at least two recursive levels simultaneously. It is important to note that these recursions are not separate systems, but a single complex systemic pattern. The patterns of the micro system are mirrored into and manifested within the framework of systems at the macro level. As part of the same pattern, the micro level makes visible the macro, which doesn’t exist without the micro. As an individual event, overweight or obesity instantiates the value or policy which in turn, defines the event. To examine the mechanics of this system, we begin with the problem-host dyad.

**As part of the
same pattern,
the micro level
makes visible
the macro,
which doesn’t
exist without
the micro.**

Problem-Host Dyad

To the weight-concerned individual (WCI), feedback from multiple sources confirms the existence of a weight problem. Over the decades, our ‘role models’, who serve to inform our idea of “normal” or “ideal”, have become thinner. For instance, over the last decades, in the fashion industry, the average runway model has gone from a size 6 to size 2 to size 0²⁰. Additionally, when the Department of Commerce officially withdrew the commercial standard for the sizing of women’s apparel in 1983, it paved the way for “vanity sizing”. Vanity sizing²¹ refers to sizing practices which are on average 6 sizes larger than the original standard. So, for example, a size 12 on the old standard would correspond to today’s size 6, while a size 6 on the old scale would be what is known today as size zero. Shrinking models and clothing sizes create a “fun house mirror” effect which distorts feedback and contributes to an array of unhealthy behaviors, including a preoccupation with food and self. This distortion was captured in a 2003 study which found that, “females tend to overestimate their body size, so they pursue an ideal much slimmer than their perceived current body and so feel dissatisfied”²². In this pursuit, food becomes an enemy or *problem* to be conquered by the host.

The problem-host dyad is a relationship created when the “*problem*” is externalized, reified as a separate entity and imbued with the ability to behave. The problem might be identified as hormonal imbalance, depression, or metabolism. In what ever way, the “*problem*” is stated, it is removed from its context and treated as a separate entity. In this case, food is the identified *problem*. More specifically, it is the host’s relationship to food

¹⁰ Center for Disease Control Publication Diabetes - Disabling Disease to Double by 2050 <http://www.cdc.gov/nccdphp/publications/aag/ddt.htm>

¹¹ Diet Industry Is Big Business NEW YORK, Dec. 1, 2006 <http://www.cbsnews.com/stories/2006/12/01/eveningnews/printable2222867.shtml>

¹² Super Size Me (2004) an Academy Award-nominated 2004 documentary film, directed by Morgan Spurlock <http://www.supersizeme.com/>

¹³ Ellen Goodstein 10 secrets of the weight-loss industry <http://www.bankrate.com/brm/news/advice/20040113a1.asp>

¹⁴ Rebecca Johnson Vogue “Walking a Thin Line” April 2007

¹⁵ The Second National Health and Nutrition Examination Survey. 1976-1980 data from USA

¹⁶ Paul Campos The Diet Myth: Why America’s Obsession With Weight Is Hazardous (references continued on next page)

which is “causing” overweight. The *problem-host* dynamic is complementary, as they exchange opposite behaviors like that of predator and prey. The weaker the host’s “willpower” the more susceptible he is to the lure of food. The more he succumbs and the pattern is reinforced, the weaker he becomes to the next temptation. (* Although hosts can be male or female, to simplify for the reader I will use the pronoun “he”.)

Host-Expert Dyad

At the micro point, the lowest recursive level, the *Expert* role is filled via information from friends or the media. There is no shortage of information on this subject. Turn on any talk show, browse the magazine rack at the grocery store and the host is bombarded with the latest, often conflicting, weight loss secrets. It’s no accident that weight loss headlines abound – they are designed to boost magazine and book sales. Amazon shoppers alone appear to spend about \$44 Million a year on diet books²³.

In subsequent recursive levels, the Host turns to outside Experts such as doctors and pharmaceutical scientists for help in the form of diet advice, drugs, surgery, etc. Similar to the Problem-Host dyad, this dynamic is also complementary. However the pattern is that of dependency and control. The more the host relies upon *experts* to control his internal states, the less he is self-regulating. The less he assumes accountability for his situation, the more he depends upon *experts* to solve his problem. Despite the up to 90% recidivism rate, the host continues to turn to experts for the latest diet, drug, surgical solution and quick fix in a desperate search for the magic formula or plan for weight loss.

Expert-Problem Dyad

For the Expert, the “battle of the bulge” captures the American mind-set of “going to war” against a problem. Whether we are waging “the war on poverty”, “the war on drugs”, “the war on terror” or “the war on cholesterol”, this mental model and metaphor provides the guiding framework for problem solving.

At the core of this dynamic lies Bateson’s epistemological error which divides the individual problem solver’s (Expert’s) conscious will from the self in a belief that he can exert unilateral control over the identified problem.

Collectively, Experts reflect the same error in epistemology. As an industry which includes diet experts, doctors and pharmaceutical firms, their battle objective is to make it

**For the Expert,
the “battle
of the bulge”
captures the
American mind-
set of “going to
war” against a
problem.**

Towards a Future We Desire?

Dr. Pawlik is a Viennese who understands perception and cognition as living art forms which through communication create the poetic invention we call history. The key of human sustainability in evolution lies for him in understanding the circularity of our thinking, talking and acting on a personal as well as global level.

Practicing a systemic style of writing “Wissenschaftspoese,” he presents scientific knowledge within the development of personal histories and the embedment in dialogical forms such as letters, dialogues and storytelling.

“Act in a way so that the relation between form and contents becomes obvious!”

I am interested in making the ideas of second order cybernetics and the concept of circularity known to the general public and I commonly use Heinz von Foerster’s and Humberto Maturana’s ideas as synonyms for the above-mentioned approaches, relying on their metaphors in articulating the concepts we feel strongly related to. This is not because we consider the work of other cyberneticians or system thinkers less important. I regard Heinz’s, and Maturana’s work as my starting point for a private as well as public dialogue aimed at overcoming notions of “objectivity” and separateness which, in my understanding, threatens all of us. I feel that this process should be accessible for everyone who wants to participate in it and that a lot of work on a lot of different levels has to be done to succeed. Kathleen Long has already addressed this issue under the title, “Dancing With Demons: Pathogenic Problem Solving” in 1992, a contribution also published in “Patterns.” (see PATTERNS, Winter 2007)

I believe the question of how to deal with circularity is of crucial importance and that it is worth taking one’s time to find a way which is not just another kind of “pathogenic problem solving.” How can the people who consider themselves cyberneticians or systems thinkers or are simply interested in the notions of circularity and connectivity come together and act together? I think it is dangerous to turn Heinz and others who unfortunately are no longer with us into gurus. With those who are still with us we share the task of establishing a dialogue inviting others and integrating thoughts of those living and no longer living. The point is looking for the future

to Your Health Penguin USA 2005

¹⁷ Kathleen S. Long Dancing with Demons: Pathogenic Problem Solving from the Proceedings of the 50th Annual Meeting of the ISSS, July 2006 <http://journals.iss.org/index.php/proceedings50th/article/view/336/193>

¹⁸ Kathleen S. Long Angels and Demons: Positive OD and Wicked Problems OD PRACTITIONER Vol. 39 No. 1 2007

¹⁹ Douketis J. and Feldman W. Prevention of obesity in adults. In: Canadian Task Force on the Periodic Health Examination. Canadian Guide to Clinical Preventive Health Care. Ottawa: Health Canada, 1994; 574-84.

²⁰ US Dept of Commerce <http://ts.nist.gov/Standards/Conformity/upload/womens-ps42-70.pdf>

²¹ http://en.wikipedia.org/wiki/Vanity_sizing

(references continued on next page)

(continued on next page)

and perceiving the present since it is our task to focus on how we deal with each other and our perspectives. The dead have not to worry any longer, they have made their decisions, and it is up to us to interpret what we make of them and to create our future ourselves. Doing that, we decide who we are.

I would like to use the following excerpt from an interview with Heinz on the occasion of his 80th birthday by Franz Kreuzer as a point of departure. The passage is concerned with why Heinz did not see himself as a guru and was not interested in becoming one. Starting with Heinz' own view may make my relation with him as well as the dangers and possibilities connected with this relation understandable.

Franz Kreuzer: What strikes me, and this is not a compliment related to your birthday, is that you, "though you have been one of the crucial protagonists of this school of thought from its very beginnings," sold yourself badly or reluctantly through all these decades. Everyone has come upon your name in this context, you are quoted everywhere, and somebody has even published a book (Lynn Segal's, "Das 18. Kamel oder Die Welt als Erfindung,") on you. You have written a lot of things but you have actually never tried to use your obvious talent for presentation to become the pope of this circle of thinking now called Constructivism or to become at least one of its popes like Maturana, Varela, or the very talented Paul Watzlawick. (Abundantly endowed with a gift for bestseller studies, Watzlawick may have the problem that he is not really understood as a scientist and philosopher, as one is tempted to think what he does is entertainment.)

Heinz von Foerster: I feel that I was blessed with the gift not to be a guru, a leader, not to create followers, to produce disciples, but to see myself as a parallel ignorant, a team player, as it were, one who is interested, a co-worker. I feel that many of my friends who were unfortunately provided with the talent for being a guru suddenly became unable to think because they began to think as their disciples want them to think. I was lucky that this was not my lot. So I am completely independent, can amuse myself, can converse with young people on the same level. I have just been invited to a major conference on education organized by teachers to speak about knowledge, cognition, etc. I will speak about ignorance and not knowing. This is what fascinates me at the moment.

For myself, I find it interesting that the interviewer was impressed that Heinz never tried to be the (or at least one) official leader of Constructivism.

(continued on next page)

The Battle of the Bulge - (continued from page 5)

harder to gain weight and easier to lose it.²⁴ Consumers as hosts, support the war effort by spending billions each year on such weight loss solutions.

Although the problem is seen as "Food" at the micro level in this system, at the macro level it is the Food Industry including growers, manufacturers and restaurants. As the "Problem", most of the blame for the obesity epidemic is directed here. Super Size Me²⁵, the acclaimed documentary film which depicted the weight gain and other negative health effects of fast food is one of many sources blaming the food industry for the obesity epidemic. Another suspected culprit is the increasing prevalence of high fructose corn syrup which climbed from zero annual consumption to 62.6 pounds per person from 1966 to 2001 and has replaced refined sugar in most manufactured foods. Some

The difficulty with assigning "blame" is that by pointing to the elements, we obscure the patterns that generate the Problem.

studies suggest high fructose corn syrup may help to undermine appetite control and possibly play a role in weight gain²⁶.

The difficulty with assigning "blame" is that by pointing to elements, we obscure the patterns that generate the Problem. Food (at the micro level) and the Food Industry (at the macro level) are not the "cause" of the obesity problem. They are elements of a complex pattern. By perceiving a situation through the filter of blame, we obscure the pattern of the whole.

In a pathogenic system, the relationship between the Expert and Problem is structurally dissimilar to the other two dyads. Where the relationships in the Problem-Host and Expert-Host dyads are complementary, this relationship is symmetrical. In a symmetrical relationship there is a juxtapositional exchange of incrementally increasing identical behaviors, like an arms race. While the other two dyads act as negative feedback loops to dampen growth, the symmetrical relationship of this dyad creates a positive feedback loop which drives the escalation of the system.

In the ongoing battle of the bulge, weight loss strategies which may be effective in the short term, produce a subsequent rebound effect and the original lost weight returns along with some extra pounds, the result of homeorhesis. Homeorhesis is a concept encompassing dynamical systems which return to a trajectory, as opposed to systems which return to a

particular state (homeostasis). In this case the system returns to a point along the weight gain trajectory where it would have been, if the system had not been interrupted.

The ultimate effect of this synergy at the macro level is that the weight loss industry and the food industry, through their synergy, incrementally escalate the problem of overweight and obesity which is what sustains them. If through some magic, we could suddenly eliminate overweight and obesity there would be an economic collapse in both the weight loss and food industries.

²² Michael Peterson Teens' distorted body image may lead to unhealthy behaviors American Journal of Health Behavior July-August 20

²³ Ethan Zuckerman, The GAP project, Berkman Center for Internet and Society at Harvard Law School, What's Amazon Selling? <http://h2odev.law.harvard.edu/ezuckerman/amform.html>

²⁴ Deborah Cohen 2-20-07 Washington Post. A Desired Epidemic: Obesity and the Food Industry <http://www.washingtonpost.com/wp-dyn/content/article/2007/02/20/AR2007022001336.html>

(references continued on next page)

Marketdata, Inc. estimates that the total U.S. weight loss market is currently worth \$58.7 billion annually and includes:

- Retail meal replacement sales were \$1.17 billion in 2006.
- Bariatric surgeries reached record levels of 177,000 in 2006, represent a \$4.4 billion market.
- Diet food home delivery is growing into an \$800 million market segment. The average monthly cost for consumers is \$725.
- Weight loss programs like Weight Watchers (\$1.2 bill.), NutriSystem (\$568 mill.), LA Weight Loss (\$500 mill.), Jenny Craig (\$462 mill.), Slim-Fast (\$310 mill.), Herbalife (\$271 mill.).
- Diet sodas' share of all soft drinks has risen to 29.5%, almost the historical peak, and this is forecast to rise to 31%. This segment was worth \$19 billion in 2006.
- Diet drugs account for about \$459 million annually

In addition, in 2001, the revenue generated by obesity-related health problems represented 2 to 7% of total healthcare spending or US \$123 billion.²⁷ Current total spending exceeds \$200 billion annually and it continues to grow. We have created an "Obesity-Industrial Complex", which, like the military-industrial complex²⁸, is comprised of symbiotic relationships which create mutually reinforcing economic relationships.

This pathogenic system expands in a fractal-like pattern in three ways:

- Rotating roles through the system, expanding horizontally
- Subdividing the problem to create new experts, products and services.
- Generating supportive industries and cradle-to-grave supply chains; e.g.; Enfamil (food substitute for infants) to Ensure (food substitute for the elderly or infirm)

Recipe for a Healthy Society

Regrettably, there is no cookbook solution for this problem. This is a complex problem requiring a complex solution in which the problem is not solved, but dissolved. The long term strategy must entail both macro level economic and social components coupled with micro level accountability building.

Whatever the ultimate solution, it will require systematically decoupling the three pathogenic dyads thereby interrupting the destructive pattern in this system, correcting the epistemological errors and restoring the host to an autonomous, self-regulating state. ● ● ●

We have created an "Obesity-Industrial Complex" which, like the military-industrial complex, is comprised of symbiotic relationships which create mutually reinforcing economic relationships.

That Heinz never claimed an official leading position within the hierarchies of cybernetics is rather peculiar given the fact that he was quite "the Senior" and for some time the only one still alive from the original group of cyberneticians.

Although he had the prerequisites for claiming leadership he did not even make an attempt to do so. (he was not only a student of the Viennese circle, had an exemplary character for the Macy Conferences but was also related to Ludwig Wittgenstein in various ways.) I got to know Heinz through people who were Wittgensteinian thinkers and one of the first things I came to like about Heinz was that he did not refer to Wittgenstein as a guru.

Heinz always supported the independence and career of people who Franz Kreuzer calls the "popes" of constructivism such as Maturana and Varela, as well as many others not mentioned here like Spencer-Brown, Gotthart Gunther, or Gordon Pask. He did not try to compete with them or make them his followers.

Considering what Heinz claims to gain from not being a guru (not being dependent on your followers, being openly ignorant, being able to amuse yourself, being able to talk with others on the same level) fits very much my personal experience of him.

I think a lot, if not most, of the interest in Heinz's thinking is directly connected with the attributes mentioned. I believe that the need for great scientists who dare to be openly ignorant, with whom one can amuse oneself and converse on the same level is so great that it encourages the danger of making him a guru.

Yet, it is of vital importance to relate the metaphors of circularity to an understanding of our society. So to me it doesn't happen accidentally that the description of Second Order cybernetics definitely fits the description of a human society I would like to live in. "First order hierarchy disappears. Each component in the loop contributes to the control of the whole. In effect, each component controls the other and the controller/controlled distinction is seen as a matter of role. The circular form of the cybernetic system is no longer disguised."

I think if one acknowledges circularity and views oneself as a participating observer one cannot but work for a society in which our interconnectedness is obvious to all of us and can easily apply this to the interconnectedness of our minds in terms of thoughts, words, deeds, and modes of perception, to our interrelatedness as humans, and to the

(continued on next page)

²⁵ Super Size Me (2004) <http://www.supersizeme.com/>

²⁶ Sally Squires Washington Post Tuesday, March 11, 2003; Sweet but Not So Innocent? High-Fructose Corn Syrup May Act More Like Fat Than Sugar in the Body

²⁷ World Health Organization. Obesity: Preventing and Managing the Global Epidemic. Technical Report Series no. 894. WHO, Geneva, 2000.

²⁸ Wikipedia http://en.wikipedia.org/wiki/Military-industrial_complex

unity we form as organisms with our environment.

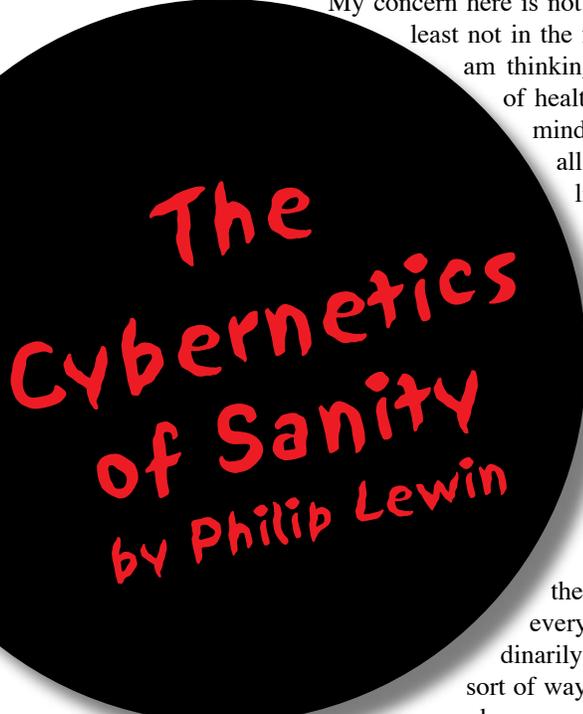
Looking at Heinz's "On Constructing a Reality," "On Self-organizing Systems and Their Environments," "Responsibilities of Competence," and "Perception of the Future and the Future of Perception," I see him working on the realization of a second order cybernetics and am struck by his deep understanding of its concepts of circularity as a participating observer. His sense of responsibility is obvious when reading his ASC 1971 keynote address in which he emphasized that "we can no longer afford to be knowing spectators of a global disaster," and that "our competence gives us the responsibility to act."

One does not have to be a member of the ASC to agree and say let's come to terms on how to act.

"To form a global society which is not so much for cybernetics as it functions cybernetically," is another suggestion one comes upon in "Responsibilities of Competence" which still seems to me an appropriate goal for second order cyberneticians. I think it is exactly this kind of thinking in which I see him striving for the creation of a community that is willing to act. So when Heinz says that he understands the exhortation, "Cyberneticians of the world, unite!," as a public appeal to create such a community, I see our efforts just in the same light. We are picking up on this task not because we consider ourselves superhuman, but because we think in second order ways, which means that we are free to act towards a future we desire. We search for new ways of communication, for ways to articulate our perspectives as cyberneticians and participating observers. We use our competence and our gifts as Barbara Vogl has used her gift of listening and letting one speak his/her mind for decades to encourage a dialogue amongst the most different kinds of people. Browsing through "Patterns" you will not only find thoughts of Heinz, Varela, Herbert Brun, and Maturana, but also those of many others from all around the world, involved in a dance-like conversation. This dance should continue and transform itself into a new pattern to create a larger platform for even more diversity and interaction between different groups of people. Heinz made a very profound impression on me, but I cannot see him as a guru. When I began to study at the university, I regarded the ego as a state of trance sustained by suggestions and

(continued on next page)

Let me begin by acknowledging that sanity is an extremely difficult topic to talk about. Once we leave the clinical realm, we are somewhat at sea. Even within the clinical realm, things are not so clear. However, for the purposes of this paper, we can think of clinical insanity as largely identifiable through behaviors and beliefs that seem bizarre and incongruent with our commonly-shared (though constructed) everyday reality, and, in particular, with conditions that have in the last two decades come to be associated with unusual neurological substrates within the brain.



The Cybernetics of Sanity by Philip Lewin

My concern here is not really with these extreme states, at least not in the first instance. Instead, by "sanity" I am thinking of the word in its root, "sanus," of health, of soundness, of being of sound mind, of a kind of mental cleanliness that allows the same root to inform words like "sanitation" and "sanitary."

My question is something meager, something like, how shall we characterize those conditions in which one seems to be both at peace with oneself, and in which one acts effectively within the world, including acting effectively with respect to perturbations, at least some of which may be unanticipated?

To put it in a slightly different way, the feeling of one's own sanity is an everyday condition of existence, one ordinarily presupposed in a taken-for-granted sort of way. My concern is to make visible the complex array of factors through which this everydayness is achieved, and a secure anchoring within the life-world is sustained. The consequence of this complexity is to underscore the fragility of sanity, and the degree to which it depends on the mediation of perturbations to it.

The varieties of human experience, however, make even this everyday sense of sanity somewhat suspect. Think, for instance, of some of the most common locutions in the language – e.g., "he must have been crazy to do that," "are you nuts?," "you've got to be insane to think she loves you," "his policy makes no sense," and so on. That is, in our everyday discourse, notions of sanity and insanity are used in an everyday, colloquial way wherein the speaker clearly does not intend that the person being described is clinically insane. Instead, the speaker seeks to demarcate an orientation toward the world that appears to be incomprehensible, maladaptive, unhealthy, pathological, delusional, or in some other way is out of keeping with an assumed, commonly-shared experience of how-the-world-is. For those of us, however, who take our cybernetics seriously and maintain that there is no such simple and transparent thing as "how-the-world-is," the judgment that someone else has got it fundamentally wrong places a special onus upon us. With deference to Warren McCulloch, we might ask, *what is a knower such that he or she can judge how-the-world-is of another knower?* Perhaps our salvation lies in the complement: and *what is "how-the-world-is" such that it can be judged by a knower?* In a sense, this essay is a meditation on the notion of "how-the-world-is," not in the sense of a univocal and exact ontological description, but in the sense of how a medium does or does not support a coherent life process. After all, I don't have to understand the principles of buoyancy and tides in order to ride the waves; nor will understanding them save me if a riptide carries me offshore.

In his classic essay "The Cybernetics of 'Self': A Theory of Alcoholism," Gregory Bateson gives us one version of an answer to the question of "how the world is." You will recall that in the essay, Bateson describes the epistemology of the alcoholic. The al-

(continued on next page)

coholic, he says, suffers from having a “less correct” epistemology, an epistemology that might be called “pathological” (as Bateson does call such epistemologies elsewhere). The alcoholic opposes his will to the temptations of the bottle in a symmetrical relationship of opposed forces. The alcoholic tests his will by tempting it with drink, and then resisting the temptation. Over time, an escalation occurs. As the alcoholic resists the temptations of the bottle, so the temptations of the bottle become that much more provocative. Inevitably, the will of the alcoholic proves to be too weak to resist the temptation. This battle of opposed forces mimics the structure of a classic Freudian neurosis, in which the forces enjoining the release of instinctual desire – including the superego’s desire for punishment following transgression – overpower the poor attempts of the ego to resist. Instinctual release takes place, resulting in neurosis in one case, alcoholic collapse in the other, each condition simultaneously providing both gratification and punishment in the same moment. The very misery of the alcoholic, of the neurotic, is the self-legitimizing, if self-punishing, pleasure of their pain.

In contrast, Bateson offers the epistemology of Alcoholics Anonymous, which he describes as “complementary,” or what we might call “systemic.” The chief epistemic move of the alcoholic, once he is ready for AA, is the acknowledgement that he and his will are not opposed to the bottle, but that he and the bottle are both parts of a larger, and more powerful, system over which he, as a part of the whole, has no control. In such a whole, one forms alliances with others – including the bottle – involving them in helping one maintain one’s sobriety, gradually reducing opposition rather than escalating it, diffusing tension across the system rather than concentrating it in the one locus – the will of the alcoholic – until it reaches its breaking point.

Bateson suggests that the system of which the alcoholic and the bottle form parts is a “system which shows mental characteristics.” In such a system, “the mental characteristics of the system are immanent not in some part, *but in the system as a whole*” (*Steps*, p. 316, *Bateson’s italics*).

He goes on to elaborate as follows:

“In principle, if we desire to explain or understand the mental aspect of any biological event, we must take into account the system – that is, the network of closed circuits, within which that biological event is determined. But when we seek to explain the behavior of a man or any other organism, this “system” will not have the same limits as the “self” – as this term is commonly (and variously) understood.

Consider a man felling a tree with an axe. Each stroke of the axe is modified or corrected, according to the shape of the cut face of the tree left by the previous stroke. This self-corrective (i.e., mental) process is brought about by a total system, tree-eyes-brain-muscles-axe-stroke-tree; and it is this total system that has the characteristics of immanent mind.” (*Steps*, p. 317).

The domain of the mental, in other words, may often exceed the physical limits of the strictly biological or neurological.

How does sanity look in the light of Bateson’s systemic insights?

Sanity is an exemplary phenomenon to explore through second-order cybernetics. Indeed, I would maintain that it is only understandable from such a perspective. At a first pass, we can say that sanity consists of a process of self-referral, usually implicit, in which one iteratively locates and re-locates oneself with respect to the larger system of which one is a part. Here too, the mental characteristics are immanent in the system as a whole, a whole that entails the human surround of affective, memorial, social, and physical, as well as cognitive, moments.

Indeed, even in our post-Cartesian era, sanity is perhaps the premier instance in which a presumed self-transparency of myself to myself continues to obtain – though the domain of transparency consists not of a reflection on the act of knowing per se, but upon the much more encompassing field of the life-world.

Let me characterize this larger field of the life-world as that of “reality.” Reality, in the sense that I am using it, refers to how I make sense of my experience. It is not some presumed objective world described by a detached observer. Rather, it is my experience

(continued on next page)

communication, but I felt I lacked the language to properly express what I meant by that. This view had resulted from long conversations with my father about hypnosis and Milton Erickson and Paul Watzlawick. I began to study with the goal to find a language, a system of thinking through which I could understand the implications of such a view. At the philosophy of science institute, I found a group of people of such different disciplines as ecology, psychology, quantum physics, and philosophy similarly interested in the question of the ego and the observer. These were people who would let me participate. When Heinz celebrated his 80th birthday some time later, he also attended a little conference of family therapists where he offered to everyone who was working on some question to write that question down. He would suggest an answer and give people some ideas for further reading. And this is what he did.

My question at that time was: “There are actions we perceive we are causing, and they re-occur in our lives; there are actions that we do not perceive we are causing, and they also keep re-occurring. How can I describe how they are connected with each other?” My question was so long that it was the only one they refused to read. Yet, after a short conversation, Heinz pointed out to me that what I was working on was the concept of self-reference. He suggested I have a look at Bateson’s “Metalogues” and after some time a couple of papers arrived from overseas. I ended up writing a book about self-reference, and when writing the “Forget the Observer” article, Heinz introduced me to Barbara, and we began an e-mail correspondence. (See PATTERNS July 2001 and November 2001) Heinz was very helpful, enthusiastic, and open-minded. He had brilliant ideas, and I experienced him as openly appreciating his colleagues. If you had an interesting question you were willing to work on he would support you as an interested team player not saying, “I know,” but “Let’s see what you find out, read this, talk to him...,” Till his very last days, Heinz was a conversation partner for many people, and it is only natural that there are many who want to keep their conversations going and keep working with others on what they believe is important. When I talk with Barbara I get the feeling that similar things are going on among people influenced by Varela, Bateson, Brun, and many others. Fritjof Capra refers to Bateson as having become a pattern that connects. Varela viewed the world as a dance through which we invent each other. Isn’t it worth working for if we can further an ongoing

(continued on next page)

dialogue accessible to all people who are somehow linked through their interest in circularity and communication? I think the stimulation of such a dialogue could be part of a cybernetics of the future. Cyberneticians of the world, unite? We may perhaps even leave behind the gurus if we succeed in coming together in a heterarchical manner.

.....

The Blogosphere

Of Interest

<http://onsite01artists.blogspot.com/>

<http://paskianartresearch.blogspot.com/>

PASKIAN ART RESEARCH
ART AND RESEARCH INSPIRED
BY GORDON PASK, 1928-1996
TUESDAY, FEBRUARY 06, 2007

Roots - Audio Visual Wet Ware

More Paskian Art Research, by Roman Kirschner, part of a Cologne group collective "Fur", involving sound generation and some excellent video footage of the process of iron filament generation in action...

Pask's Ear

Jon Bird at Sussex and co-organiser of Blip, a Brighton based forum for creative art, science and technology has been working with Andy Webster at Falmouth, on a project entitled Tuning Pask's Ear, inspired by an experiment conducted by Gordon Pask in the late 1950's training growing metal dendrites to recognise sounds. The original experiment is documented by Peter Cariani "To evolve an ear: epistemological implications of Gordon Pask's electrochemical devices"

Below are images and short statements of their current ongoing experiments with electrochemical deposition.

Jon Bird

Jon is interested in systems that exhibit evolutionary and learned behaviour. He is working on a micro scale, re-appropriating devices used in bio-technology to grow metal filaments. The devices and associated control equipment enable the programming of many inputs and outputs, once a few teething problems with their unusual use have been ironed out.

The Cybenetics of Sanity (continued from previous page)

of my experience. We can think of "reality," in the sense I mean, as providing fundamental world orientation. As such, it entails a set of factors or existential specifications. We can initially, if incorrectly, locate these specifications as lying between the two poles of a sense of self and a sense of the life-world.

This identification is incorrect, of course, insofar as it reifies the notion of the self. Yet it is hard to ignore some notion of the self when discussing sanity; it seems that it is precisely the sense of self – its adequacy, its cohesiveness – that is at issue in such discussions. "Sanity" and "self" seem to go hand-in-hand, at least insofar as the tradition of thought in the west has developed. Indeed, insofar as modernity is understood in terms of the celebration and autonomy of the individual, it is no coincidence that the terms of both modernity and the self are the same: the presumed self-sufficiency of the knower, set apart from the world, is the condition of each.

Such a notion reaches its moment of sublime clarification in Descartes's identification of the cogito. For Descartes, the presumed self-sufficiency of the knower in isolation from body, affect, and world is the founding principle from which the entire superstructure of reality may be apodictically derived. In its own way, the presumed self-sufficient will of the alcoholic is but a variation of the cogito – and, of course, such presumed self-sufficiency is no more tenable in the Cartesian case than it is in that of the alcoholic.

It behooves us, in other words, to understand our sense of self not as the polar opposite of the life-world, but as part of a system displaying mental characteristics in which our cognitive capacities, along with much else, are embedded. The sense of self, I would suggest, is an ongoing moment of dynamic equilibrium at the center of the dance of existence. Our experience of our experience coheres like the dynamic center of a whirlpool, like the eye of a hurricane. It is the result of an ongoing process that requires all the patterned chaos of existence – as the whirlpool or the hurricane requires the turbulence of water, of air – to sustain itself. It has no existence apart from the process. It is the world, and not a cogito, that sustains and affirms our sense of self.

To try to forestall a potential misunderstanding, let me note that our sense of agency is very much a part of this self-process. We are not merely the determinate output of impersonal forces, nor is our sense of our own personhood an illusion. But our agency must be understood as a part of the systemic process, enticed into play by the process itself. The sense of self can be a difference that makes a difference, a moment of the process that can be differentiated when we wish to. But the sense of agency – the alcoholic's will – is not an ontologically distinct element, purely voluntaristic and separate.

My claim, then, is that sanity is a systemic condition between one's sense of oneself and one's sense of the world. It arises from one's situatedness within the world.

To make this picture more concrete, let me specify some (not all) of the factors that obtain as we sustain our everyday sense that we are sane. Here are a dozen, in no particular order.

- (1) -certain key memory traces (episodes, events, mini-narratives, proto-narratives, episodic memory) that can be validated both by material artifacts (photos, souvenirs, momentos) and by other persons.
- (2) -certain affective states that have become characteristic or habitual, so that we know who we are because we feel like ourselves, and we experience that odd sense of dislocation when we do not feel like ourselves. More perspicuously, this includes having control over our emotions and understanding them, at least in a rough way, so that we know why we are feeling what we are feeling, and in some cases, not allowing what we are feeling to prevent us from doing what we want.
- (3) -certain identity facts (semantic memory), so that we are not in the unfortunate position of poor Oedipus, not knowing who his parents, his siblings, or his city are, not even knowing how he acquired that strange scar on his ankles that gave him his name.
- (4) -one's continuity as embodied, but coupled with certain bodily feelings, postures, etc. that have become characteristic or habitual (somatic memory); are you left-handed? how do you initiate a jump shot? which parts of your body are always sore or stiff or tender? and how does it feel if you initiate a jump shot on the other foot, or awaken one fine morn-

(continued on next page)

ing with an extremely stiff neck, or try to write with your non-dominant hand?

(5) -a familiar state of bodily well-being, of how one's own body feels to oneself (even if this sense of well-being includes morning sluggishness, sore hips, and sinus congestion). Note that this sense includes one's memory of how one felt at other times in one's life. I know who I am, in part, because I know how it felt to hitchhike across Greece with the first girl with whom I completely fell in love (even though I have not seen her for years) or how it felt to drive for lay-ups with a quickness no one else on the court could match (even though I now feel as ponderous as a hippo). Conversely, think how odd one feels when one is sick or has suffered a serious accident, that not only does one feel the condition of the sickness or the recovery from the accident, but one loses one's sense of how one felt when healthy.

(6) -repeated social validations by recognizable others, so that your friends treat you like friends, so that you are acknowledged and recognized and included.

(7) -particularly crucial in this regard are the truly important relations for most of us – lovers, close friends, families of origin, children, wives and husbands. Recall the way in which the entire world seems to shift when you learn that someone close to you in this visceral sense has been in an accident or has fallen ill, or has died.

(8) -facts of cultural memory such that one is continually re-oriented toward one's socio-cultural world (is the President still named Bush? Are we still fighting a war in Iraq? What year is this anyway?)

(9) -certain modes of acting and behaving in the world, as one carries out one's projects (for instance, how do you go about the process of making a decision? how much information do you gather before you decide? how much time do you give yourself? Or, when you settle down to work, what is the routine that you tend to follow? Do you begin with the hardest tasks or the easiest? What interim goals do you set along the way? When do you allow yourself to take breaks?)

(10) -certain modes of acting and behaving in the world in terms of how one interacts with others, with a clear sense of differentiated modes of acting toward different others (how do you treat your friends? your grandmother? your brother who you resent? your other friend that you are secretly erotically attracted to? your boss? your children?)

(11) -the ability to function effectively in the world so that one is able, cybernetically, to understand the consequences of one's action, so that I can anticipate the affect of my actions on you, so that your response affirms the correctness of my anticipation – and so, when we get good at it, as we ordinarily are – my actions toward you and your response to me will be seamless, without friction, in a state of near-perfect attunement.

By way of contrast, consider the experience of being in a foreign country, and how one must re-calibrate one's behaviors with respect to one's own alien status until they are again seamless, or as seamless as possible for an outsider. We might, for instance, intentionally leave them rough so as not to seem presumptuous, understanding too much. Or consider humor as precisely the capacity to understand how these conventions of anticipatable response can be subverted.

(12) -most problematic of all, consider the ability to behave "normally" in the world, both in your own eyes and the eyes of others. Here we reach perhaps our most shaky ground, for the normal is among the most contested of terms (and implicit understandings). It has at least three distinct meanings which are usually conflated and confused: a. not abnormal, a psychological meaning; b. statistically common, a behavioral meaning; c. normative, or how one ought to behave, a moral meaning.

Deciding the range and limit of just what is "normal" is an ongoing task, and I can do little more here than point at it. The central issue is that the various significations of "normality" tend to slip into one another, and this slippage carries profound affective consequences. To take only a single example, if I ask, "is homosexuality normal?", I quickly find that merely to raise the question unearths impassioned public debate in which normality in all three senses is at play. Similarly, in all cases in which the putatively "normal" is at stake, we find ourselves continually re-negotiating the meaning of particular behaviors and beliefs to address the affective discomfort such questions always arouse.

(continued on next page)

REFLECTIONS

Thanks to Ranulph Glanville, Vice-President of the ASC, we have this bit of history from the inaugural meeting of the American Society for Cybernetics in 1968. Anthropologist, Margaret Mead said in her Keynote speech:

"I should like to tell a story which I think may be useful to our new society. I went to the organizational meeting of the "Society for General Systems Theory" in Atlanta. The audience was typical, a few old men and women, five or six people who had arranged the meeting and knew exactly what they wanted to do, and a few diverse and unidentifiable characters. They were going through a perfectly stereotyped, conventional, and uninspired rigmarole. As no one knew who I was, I had an opportunity to see how cranky a new idea seems unless it is advanced by a well-known person. I suggested that, instead of founding just another society, they give a little thought to how they could use what its laws of growth and articulation with other parts of the scientific community should be. I was slapped down without mercy. Of all the silly ideas, to apply the ideas on the basis of which the society was being formed to ITSELF. I would like now to repeat this suggestion. It seems to me that in a new organization, centered upon our knowledge and interest in circular self-corrective systems and our capacity to deal with the situations to which they may be productively applied, it might be worthwhile for this combination of old and new to really consider, technically and carefully, what in thunder we are founding. How many members do we want and from what groups should they be chosen? Maybe it would be well to consider from what groups they should not be chosen. How are we going to keep from getting steadily older, so that ten years from now young men (sic) will not want to join a society of people with whom they can't communicate? How are we going to keep our communication system alive? Or should we plan for the society to die in ten years? Recognizing that one is working in new and possibly transient fields, one can set a terminal date even at inauguration."

Earlier, I described sanity as a condition in which one seems to be both at peace with oneself, and in which one acts effectively within the world. The question of normality highlights just what it may mean “to be at peace with oneself.” In the simplest case, we may recognize that a behavior or belief is not normal (in the statistical sense), yet may be normal for us, and therefore is psychologically and morally acceptable to us. Yet we may change our behavior or belief nonetheless because it may feel too uncomfortable to stand against social pressure. How many Germans became Nazis, how many Iraqis became Baathists, how many Americans acquiesced to the Iraq War, not out of deep personal conviction but simply because not to do so had a variety of unwelcome consequences? That is, if we are oriented in the world by a vast network of affiliations, then when aspects of that network themselves become sources of perturbation, an affective re-equilibration may take place that nonetheless may be cognitively dissonant. The structures of peer pressure, of prejudice, of public opinion, of fashion and trend and fad, all obey this logic.

Of course, all these factors – plus all the others I left out – re-cycle through the mind continually, recursively, cumulatively reminding us of who we are. ***My claim is that the systemic coherence of all these factors, especially insofar as each is affirmed and re-affirmed by the others so that a vast network of mutually supported constructions is achieved, is precisely the condition of sanity. Our most ordinary states of everydayness are sustained by a myriad web of social relations, empirical facts, cognitive constructions, memories, understandings, behaviors, affective states, bodily postures, modes of comportment, nearly all of which are either invisible or implicit.***

In contrast, insanity is the condition in which this complex is jeopardized. Clearly, if one or a few aspects of this complex become unsupportive – I find it unimaginable that we still have a President named Bush but you insist that we do, or I am told that my behavior, which I thought was amusing, was perceived by you to be offensive – there is no serious threat to my sanity, though I may question myself and change accordingly. The question of normality in one of its several forms is likely to arise. But if a critical number of the many things of my reality upon which I habitually rely – affects, behaviors, responses from others – come undone, I am likely to experience the kind of existential stress associated with so-called “nervous breakdowns,” with difficulties in coping with the demands of everyday life.

The phenomenologist Maurice Merleau-Ponty, in his posthumous and unfinished work, *The Visible and the Invisible*, sought to explicate what he called “the flesh.” The flesh refers to the moment of our experience in the moment of our experience. That is, it refers to the way that the world reveals itself to us, as such, in that very moment that we both perceive the world and experience our own perceiving of it. It is, in many ways, a notion congruent with how I am suggesting we think about sanity. That is, if sanity is a perennial and necessary state in which far more supports it than we can ever be aware, then the flesh is the depth of that support, sustaining us whether we notice that depth or not, but available to us whenever we wish to focus more intently on any differentiated moment of being.

Says Merleau-Ponty, “We touch here the most difficult point, that is, the bond between the flesh and the idea, between the vis-

ible and the interior armature which it manifests and which it conceals.” Our effort is to fix “the relations between the visible and the invisible, in describing an idea that is not the contrary of the sensible, that is its lining and depth.” (p. 149)

A way of thinking about sanity is precisely to follow the flesh – the direct experience of the world – into “its lining and depth” – the invisibles that sustain it and give it meaning. To take a simple example, one might consider the way in which some experience within the world (a visible) triggers a memory (an invisible), say, a boat ride triggering a memory of other boat rides. As one wishes to, one may explore those memories. I can recall the weather, and how the chill of the morning air mixed with the black smell of diesel fumes as I stood at the stern of a ferry crossing Lake Michigan and watched the port city recede in the early fog. My memories may spread horizontally, to other early morning boat rides on ferries and canoes, to glass-bottom boat rides in Florida with my parents or to my first sailing experience, in Paul’s sunfish off Long Island Sound.

More interestingly, I can take any of these memories and allow each to deepen – from the disappointing breakfast buffet on the Lake Michigan ferry, to the sense of explosive color in Florida’s waters, to the tactile mixture of sun and spray on my right arm while sailing. Indeed, if I allow myself to fall into a state of reverie about any of these specific memories, further aspects of it, further details, reveal themselves. As Merleau-Ponty suggests, “The perceived world...is the ensemble of my body’s routes and not a multitude of spatio-temporal individuals–The invisible of the visible. It is its belongingness to a ray of the world.” (p. 247)

My sense of who I am emerges from this network of invisibles. I locate myself as the point of their intersection, where all come together, and in so doing, locate myself. Collectively, they orient me within the world. This, for me, is sanity: a condition in which one is grounded and oriented by all the invisible lines of connection, all the rays of connectedness, of connectivity, of affiliation, between oneself and one’s experience, between oneself and one’s world.

WORKS CITED

- Bateson, Gregory. “The Cybernetics of ‘Self’: A Theory of Alcoholism.” IN: *Steps to an Ecology of Mind*. New York: Ballantine Books, 1972, pp. 309-337.
- Merleau-Ponty, Maurice. “The Visible and the Invisible.” Alfonso Lingis, translator. Evanston: Northwestern University Press, 1968.

Philip Lewin teaches the humanities and writing at universities in western Michigan. His involvement with the American Society of Cybernetics grew out of his graduate work in the late 1970s. Among his primary influences at that time were studies on Jean Piaget with Ernst von Glasersfeld, summer courses with Humberto Maturana and Francisco Varela on biological epistemology, and the revelation that was his first reading of Gregory Bateson’s “Steps to an Ecology of Mind.” These influences continue.

Philip Michael Lewin can be reached at: pml Lewin@yahoo.com



AMERICAN SOCIETY FOR CYBERNETICS

NEWS

Systems / Systemics Systems / Systemics

Third International Heinz von Foerster Congress

16.–19. November 2007

Organized by the Heinz von Foerster Society, the Dept. of Contemporary History at the University of Vienna and the Wiener Institut für sozialwissenschaftliche Dokumentation und Methodik [WISDOM]

With special sections on Ernst von Glasersfeld and Gordon Pask.

In 1959 Heinz von Foerster gave a lecture On Self-organizing Systems and Their Environments which offered a linkage between apparently separated concepts system theory, cybernetics and self-organization. Subsequently von Foerster and his team at the Biological Computer Laboratory (BCL) worked on the fusion of the spheres of cognitive studies, cybernetics, computer sciences and biology. These efforts resulted in a series of ground breaking studies on living systems and under the name of Second Order Cybernetics a new integrative and systemic research program was gained. Heinz von Foerster – and with him W. Ross Ashby, Gordon Pask, Humberto Maturana, Francisco Varela, Ernst von Glasersfeld and others – then reached inter-disciplinary connections and developed pathways which until today have not

been reviewed systematically and tapped to their full systemic potential

The third Heinz von Foerster-Congress 2007 is devoted to these Foersterian cross- border and trans-disciplinary approaches and their relevance for today's discussions in the humanities, social sciences, economics, and sciences.

Besides the main topic, Systems/Systemics, the conference offers a series of special sections on the work of founder of Radical Constructivism, Ernst von Glasersfeld, who celebrated his 90th birthday in 2007 and on the work of the cybernetician and communication theorist Gordon Pask (1928-1996) whose scientific papers are archived at the Dept of Contemporary History, University of Vienna. Following the Congress, a one-day workshop delves into some of its topics.

Persons intending to participate we kindly ask to register using the e-mail address:

hvf07.zeitgeschichte@univie.ac.at

Albert Mueller, Karl H. Mueller

For more information see <http://www.univie.ac.at/hvf07/>

Universität Wien, Hauptgebäude

A-1010 Wien, Dr. Karl Lueger-Ring 1

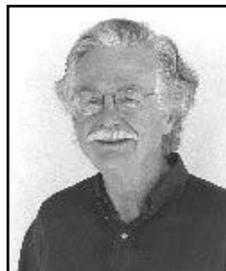
heinz von foerster gesellschaft

OBITUARY

Will was a designer, consultant, and educator. He first worked in the early 1950's with the Bell System designing computer and operations research applications. Following his doctoral work at Carnegie Mellon University, he co-founded a business school at Leeds University (England) and created the first American STS program at the UCLA Graduate School of Management. By the late 1960's he was working to form the earliest of the high-performing open system organizations in manufacturing plants and in community development, social and physical design. Following the civil rights riots in Los Angeles he joined efforts to rebuild housing and the arts community in central Los Angeles, and continued working with marginalized groups and non-profit organizations.

In 1979 he helped found the innovative doctoral program in Human and Organizational Systems for mid-career professionals at the Fielding Institute in Santa Barbara, a program that primarily educates through both face-to-face mentoring and using electronic communication.

Publication of Will's book, Paths of Change, established a



William Houston McWhinney, PhD.
July 2, 1929 - April 3, 2007

new combination of analytic and expressive tools for resolving complex issues in organizations and communities. The sequel, Creating Paths of Change, made the tools particularly user friendly for change managers and consultants. An unfinished work, Grammars of Engagement, was working toward taking system theory into a new exploration of communications and conflict resolution.

Will was chairman of the board of HealthSpan International, an organization bringing health care and telemedicine to

Tanzania. He was founding editor of the Journal of Transformative Education, past president of the Association for Humanistic Psychology, past vice-president of International Synergy, and headed his own consulting organization, Enthusion, Inc.

He was a great teacher with a profound intellect, spirited energy and a deep heart. He was a metal sculptor with a deep appreciation for Navajo mythology and rugs. The generous gifts of his mind challenged us, his soul mentored us, and his heart danced with us. He will be greatly missed by his family, friends and colleagues.

**AMERICAN SOCIETY FOR
CYBERNETICS**

**European Meeting on Cybernetics and
Systems Research
Vienna, Austria
University of Vienna
March 25 through 28, 2008**

Organized by the Austrian Society for Cybernetic Studies in cooperation with Institute of Medical Cybernetics and Artificial Intelligence, Center for Brain Research, Medical University of Vienna and International Federation for Systems Research

www.osgk.ac.at/emcsr/

George Swanson reports that we have been invited to conduct a second symposium on Living Systems Theory (LST) by the EMCSR. The meeting is in Vienna, Austria, from March 25 through 28, 2008. The absolute deadline for paper submission is November 4, 2007. If you would like to submit a paper related to LST, please contact him as soon as possible at

gaswanson@tntech.edu

An ever increasing number of research areas, including social and economic theories, theoretical biology, ecology, computer science, and robotics draw on ideas from second order cybernetics. Artificial intelligence, evolved directly from cybernetics, has not only technological and economic, but also important social impacts. With a marked trend towards interdisciplinary cooperation and global perspectives, this important role of cybernetics is expected to be further strengthened over the next years.

Since 1972, the biennial EMCSR meetings have served as a forum for discussion of converging ideas and new aspects of different scientific disciplines. As on previous occasions, a number of sessions providing wide coverage of the rapid developments will be arranged, complemented with daily plenary meetings, where eminent speakers will present latest research results.

The Austrian Society for Cybernetic Studies hosts the editorial office of *Cybernetics and Systems: An International Journal*

Editor-in-Chief: Robert Trapp

Associate Editors: Henri Atlan, Christer Carlsson, George J. Klir, Franz Pichler, Luigi M. Ricciardi, Stuart A. Umpleby, Tibor Vamos, Alexander Weinmann, Bernhard P. Zeigler

Cybernetics and Systems disseminates information about important methodological developments in cybernetics, enabling scientists from different areas to use these methods in their research; focusses on important new applications of cybernetic methods in different areas in order to encourage application of these methods to problems; and informs the scientific community of new books, ongoing research in specific institutions, forthcoming conferences, and institutional and personal changes.

Cybernetics and Systems appears in eight issues per annum and comprises approx. 800 pages per volume. It is published by Taylor and Francis, Philadelphia, PA.

CORRESPONDENCE:

From: Ranulph Glanville, ASC Vice President

The EMCSR meeting is scheduled to take place in the week after Easter (March 25 to 28, 2008), in Vienna. I felt that a fuller briefing might be of interest.

I have, at the last two conferences, chaired the session on Cybernetics of Cybernetics also known as Second Order Cybernetics. Central features of this sort of cybernetics are an interest in interaction and conversation, though they are not the only concerns. I included these words as a small homage to Gordon Pask, who ran a symposium at EMCSR from 1974 until 1994. My wish, in launching the symposium, was to have a place where the emphasis could be on cybernetics discussed in its own terms, as a subject in its own right; rather than as an applied science in which utility is the main concern.

There is a remarkable serendipity concerning Pask in Vienna at the moment: on November 16, 2007, his archive at the University of Vienna (where it sits next to the archive of Heinz von Foerster) will be publicly launched in a grand ceremony, and there will be a seminar on his work.

In March, I hope to be able to take this further. While Symposium C will continue its focus on the Cybernetics of Cybernetics, I am also encouraging a special sub-theme on this particular occasion: the work of Gordon Pask. I hope there will be a considerable response that may spark a revival of interest in and understanding of his work.

I have negotiated an art gallery so that there can be an art component to the symposium (I am not yet sure how to fund this) You will be aware of Gordon's interest and participation in the arts and Dr Albert Mueller, the Pask (and von Foerster) archivist will take a special guided tour to the archive for members of the symposium.

There is a publication programme associated with the Pask archive. At the official announcement of the archive in November, an introductory book "Gordon Pask, Philosopher Mechanic: an introduction to the cybernetician's cybernetician" edited by Karl Mueller and myself will be launched. A Reader is planned, and the proceedings of the symposium sub topic will provide a third stream.

You can see there is a lot of promise. And Pask's work was quintessentially second order cybernetic, right from the outset. So a focus on his work fits perfectly within the symposium, without distortion.

I invite you to consider taking part in this great re-awakening. Please join us in Vienna in late March.

**For information about membership in the
American Society for Cybernetics**

Contact:

Majidi Mehdi:

majidi@gwu.edu