Feedback and Self-

Accountability: A

Collision Course

By Carol Sanford

The process of providing feedback to peers, subordinates, even superiors—as in the 360° view or performance appraisal—became popular as cybernetic systems in computer applications were better understood. The creators of these artificial intelligence systems discovered how critical feedback loops are to correcting and adjusting performance of mechanisms such as a thermostat in the regulation of a furnace to manage temperature. The metaphor inherent in the idea of feedback was suggestive of the processes in the new participative business cultures. It seemed to many business leaders, a logical extension of this metaphor to assume that people need a similar feedback loop. A misconception occurred in the transfer of the idea from one arena (the mechanical) to the other (the human) as a result of insufficient understanding of cybernetic principles as well as inappropriate assumptions about similarities in the nature of the two systems.

The most fundamental difference between the two systems is that a mechanism is a closed system and a human being is an open system. A closed system cannot function indefinitely without the application of energy from an external source. An open system works through an energy exchange with its greater environment in a way that creates a symbiotic relationship. For a machine to continue to work without running down, it must be given energy; e.g. a car needs gasoline, a heater requires oil to burn, a lamp needs electricity to glow. Human beings, on the other hand, can work in a reciprocally maintaining relationship with their environments. These systems connect to one other, willingly or unwillingly, and affect the survival of the other through the interaction that takes place—as in a customer/supplier relationship or in a marriage. They are interdependent and dynamically interrelated

The conflict that arises comes from misunderstanding the human correlation with cybernetics theory and in the functioning differences between humans and machines in gaining and using feedback. A mechanism called a governor is engineered into machinery to make

adaptation possible, which "senses" the excursion outside of specified boundaries, e.g. the preset temperature senses and signals that heat production is too high. The governor uses this "feedback" to change the operating of the machinery thereby returning it to conformance with preset standards. In the case of human being there is no *requirement* to be externally informed or to import energy to stay functionally effective. A person has the internal capacity to see behavior that has gone out of bounds. What value they place on this and what action they require of themselves to change what they see is a matter of development, not inherent bad design of the working of human beings.

Humans do not have such clear boundaries with the environment as do machines where it is more evident who can control and affect what. Further a human being has living "mechanisms" in its thinking and emotions that engage in interpreting an environment, sensing the state of other living systems, and observing its own process as it does all this reflecting and taking actions. This provides a different capacity for self-managing than is available to machinery and other closed systems. Even in the case of the machinery the sensor and the governor are in the machine, not in the environment itself. There are

many fundamental flaws in the logic that created the idea of "feedback" being introduced into any organization that is moving toward an increasingly participative workforce and with more self-managing teamwork. Let us explore the fundamental premise behind the idea of self-accountability organizations and the process of "feedback" in such organizations. Theory from cybernetic systems and living systems sciences will also offer us some valuable insights by comparison and contrast.

Working with Human Nature instead of against it, or (as a Replacement)

The creation of organization designs sufficient to engage effectively with a rapidly changing world of industry, require that a different set of operating processes must be created using an evolving set of paradigms or premises—different from even the current popular models offered by socio-technical work design. As Alfred Korzybski, the noted general semanticists says, "no system [design] which disregards or violates 'human nature', can possibly survive'. The paradigms offered here are based on a reformulation of what we have assumed is 'human nature', a formulation that is primarily developmental in philosophy and is

drawn from living systems and the sciences of complexity. The story of human behavior from a developmental perspective—one that operates from the potential of people versus the managing of variances and disorder in human behavior—has a set of interrelated premises which herald a different approach.

The following premises are created to look at each of these pieces of the human story in turn and the difference in approach that is offered by a developmental approach to behavior change.

Premise 1: Self-Governing Behavior is Energy Effective

The foundational element in effective work systems is self-correcting, self-managing, self-accountable, self-governing behavior. Energy spent on monitoring and attempting to affect the behavior of team members or other entities from the outside is energy wasted and energy that could be better expended on improving the business and the capability of people. The critical element is to increasingly create self-governing capability.

In Western culture we have systematically worked in a way that has instilled processes that tend to erode self-accountability. First our parents, then our teachers, and then our

employers/bosses tell us (i.e. give us feedback regarding) what to *do*, how we are doing in our *performance* and what our *grade*, or *rank* is, or to what degree our behavior is *correct*. This is so embedded in our way of operating it is difficult to see how pervasive it is and how much external appraisals and directives work against creating self-accountable human beings.

Even in cybernetics systems theory, mechanical and electrical systems operate effectively through the regulatory effect of a built-in governor, or self-correcting mechanism. These non-human systems use information to identify differences or changes that exist throughout the system and that indicate to them that the system is not operating optimally. This causes the system, in an internally managed, "self-correcting" manner, to work to regain an ideal or optimum state based on defined parameters. So even our extrapolation of cybernetic theory from machines is not accurate.

There is an assumption in most organizational settings in our modern society that human beings cannot be self-governing or self-auditing because they cannot be objective about themselves. Human Beings, even with a more complexly functioning brain and an ability to make choices, are assumed to be less able than machinery to be

self-regulating. Unfortunately this is partly true, but not innately so. With humans, if this ability is not developed in us from childhood, the capacity to be self-reflecting (self-observing and selfremembering) steadily diminishes, and this is particularly true when our primary source of reflection is external (e.g. from others' interpretation of our actions), and particularly if the feedback focuses on elements that tend to pull us away from that which feels intrinsically selfintegrating. We will look at this idea further under premise # 2. However a good understanding of this can be experienced in a familiar example. We often times have someone we respect tell us that we should take a particular course of action (or not take an action), when our own internal sense is disagreeing. When we do not follow our own intuition, whether we later find it to be appropriate or just a "good learning experience", we lose a sense of integrity with our own course of development. We have a strong desire as humans to feel a sense of integrity between our values and our behavior, even when we have to learn the "hard way". To be otherwise, especially to repeatedly follow the 'advice' of others, is to eventually deny our own inner sense of reality or in extreme cases to become schizophrenic.

When viewing humans developmentally or as though each person is working to unveil their own potential and contribution, it is possible to understand how a person can use a process of self-reflection to create self-regulating behavior. Reflecting on our thinking and emotions that are the impetus for particular behaviors provides internally developed *feedback* on the degree of adherence we as people are maintaining in attempting to approximate a desired pattern or achieving a particular aim. By this nature of reflection, a person can tell what is uniquely optimizing and integrating for them. We forget sometimes that what we see that we think requires changing in another person, may not be the most critical change needed from *their* perspective and what works for one person does not necessarily work for another. This is a core life exercise in the development o f selfaccountability-discovering what works for us, what demands higher inner discipline and what benefits from flexibility in our dealings with others and ourselves.

Who Said Feedback Was Appropriate and Why?

The primary sources for alternative models have come from the business schools of America,

the consultants who serve industry (many from the universities), and the published works of the professors and consultants. The majority of this work is however based on an underlying philosophy that came to business by way of psychology and behavioral psychology in particular. The behavioral approach to psychology and therefore to business is uniquely American and had its birth and nurturing beginning in the first third of this century. It is also the basis of most child rearing theory in America. To receive funding to establish schools of psychology, the behaviorists promised to supply the fundamental laws governing all human activity, irrespective of the context, and the fundamental science of human affairs by which to ensure the control of people. (Danziger:1979). With such a promise, this approach became the primary and in fact only school or philosophy of human psychological research until very recent years. While other nations proceeded with a broader look at human beings, American business was spoon-feed the singular philosophy of behavior modification as an externally applied phenomenon which is now becoming embedded in the new generation of work team design. The behaviorist model, which works on understanding how to correct behavior that is considered disorderly, offers techniques that tend to work against the core capability of self-accountability.

Premise 2: Therefore Self-Reflective Capability is Needed

The ability to be self-correcting or self-governing is dependent on the capability to be self-reflecting, to see one's own processes as they play out and to interpret them in terms of what is needed to return to homeostasis (to create balance and harmony internally and with one's environment.) and to create heterostasis (evolution and change of strata or class).

Returning to cybernetics theory, we find that mechanical systems seek the information that is appropriate for optimizing the whole of the system and will interpret it to determine what is needed for optimizing. It will ignore all other information. It turns out that human beings have a similar drive to maintain wholeness and not to be diverted into sub-optimizing in favor or a part. In humans and machines, if information is "forced" into the system, and it can not be disregarded, it will either cause oscillation—to waver or vacillate without ability to choose or proceed independently—or the person or machine with go into runaway—overcompensating for or maximizing the focus on the isolated piece of

information. The oscillation or runaway, when repeated over time, produces increasing distortion and deterioration of the system's ability to rebalance or optimize. The oscillation or runaway comes from seeking to maximize the variables that attention is called to, over and above the optimizing of the overall system sought by the governing apparatus in machines or selfreflecting processes in humans. A good understanding of this can be experienced in a simple example. Sometimes the more someone tells us not to do something, in spite of the fact that it may hurt us, we will refuse to stop and sometimes even escalate our involvement with the specific behavior. One research study found that children by the early school age could no longer correctly interpret whether they were following simple instructions. However they would defend their responses as accurate even when shown photos of themselves not in compliance. However, with only as few short weeks of being asked to reflect on the accuracy of their response to the same exercise, without any external input, they became increasingly accurate at judging their own success. It is a capability systematically eroded in our culture, but one that can be regained with practice.

In a human system, runaway (from focusing on a portion of the whole, without regard to the entirety of the whole, or when the elements not focused upon are "out of control") cannot be maintained for extended periods of time, without tending to, cause loss of ability to return to selfgoverning, self-correcting systems on their own. For anyone who has had a teenager, this is a familiar concern. To return the system from runaway to self-correcting, it is important to introduce self-reflection processes back into the situation. This must be done in such a way that the reflection processes can be used to seek to optimize the whole again. Otherwise we erode the "learning and adapting ability" of the system. This loss of adaptability is quite common when the autoimmune systems are confronted by chemotherapy treatment for cancer. The treatment leaves the natural governing systems unable to determine what anti-bodies or types of blood cells to release and which to destroy.

Loss of adaptation is also present when an organization takes on a partial focus such as attempting to regain control of costs because of an intense focus on quality therefore pulling the overall harmony out of alignment. When runaway occurs in an organization the tendency is to attempt to shift the focus of operating teams as

fast as one can to each new runaway area, with a hope of gaining control again, with the resulting effect of being unable to get the whole back in balance. These business systems shift from cost to quality, and then when quality is out of control, back to quality or safety or the next area out of control. This attempt at correcting the imbalance manifest as segmented goal setting in all of the arenas that were most recently out of control/runaway.

In the case of an individual who continuously receives feedback from external sources, the tendency is the same. Focus is drawn immediately and intensely to the arena of highest attention from the environment. Whether the feedback is positive or negative, the result is the same. The focus is on changing the item that has been highlighted or replaying at least mentally the item of acknowledgment. Either way, they have lost touch with the whole of themselves and what is needed to ensure their evolution and development as a whole.

Premise 3: A Developmental Plan is the Basis of Self-Reflection and Self-Governance.

To be a self-correcting system, as a person, or as parts of teams, we must operate from a developmental plan that contains three lines of work stemming from a hierarchy of values and influences. This means people are working on expressing their own uniqueness (first line) and learning about themselves and the joys and problems of working with others (second line), all the time continuing the search for an opportunity to make a contribution to something greater than themselves (third line). The only way people can optimize their own balance and maintain self-governing ability; is to develop and use a developmentally wholistic plan for themselves, and then continuously self-reflect to stay with the plan.

Cybernetics theory tells us that the isolating of individual systems in order to create correction will lead to runaway. This happens most frequently in systems due to well-intentioned processes of giving and receiving feedback exclusively from an external perspective. Feedback is only useful information to the system (able to avoid runaway behavior from it) when it comes from a context of the value that needs to be continuously added to that to which or those to whom it offers its output and on whom it depends for reciprocity This perspective requires taking into account the whole. In the business world this context comes from the customers and consumers of the goods and

services we produce as well as from other stakeholders in our endeavors. In this context, an individual can determine what would increase the effectiveness of the customer and thereby set a plan for them to enable that. The enabling of others, such as a customer, to move beyond where they currently are, always requires us to raise our own level of capability. In this context, a person is able to *interpret* "feedback" through information for and from itself utilizing self-reflection; and determine how it matches the developmental plan the person has been working within. This nature of process requires and enhances discovery and further self-reflection.

The developmental plan is based on aims that require us to develop beyond our present state of being and present capability. We do this because we see something that needs doing and we can uniquely do it. Aims are set regarding the new ableness for the organization or business we propose to support, the team we can be a part of in service of this business, and then the personal aims we feel are required of us to achieve the other aims we have set—the three lines of work Aims are not the same as traditional goals and objectives, but are rather developmental paths that require us to *be*, rather than just *do* something different as a result of pursuing them.

What is <u>not</u> development: There are several "categorizing feedback" methods in vogue that are offered as training and development, but tend not to be developmental in their nature. The Myers-Briggs analysis is one example. These models tend to be presented as static and categorical inviting better understanding of who we are, but offering little opportunity to see who we could become. These standardized tests primarily focus on the personality and functional aspects of a person, without sufficient invitation to explore the uniqueness we have as individuals. In this type of process, a person comes to see him or herself as static ("what I am") rather than evolving ("what I am becoming or could become") and we see ourselves as common and definable by external standards. When these assessment models are used in organizations they contribute to a field of external judgments whereby we see people as types—one of a few categories. The life of a person is reduced to a box or a rank. These models are thieves of developmental processes.

Premise: 4 Use a form of "Feedback" that Enables Self-Reflection

Processes for "feedback" to others that builds uniqueness must be done within a

development plan that the system/person has engaged in creating for him or her self, based on the uniqueness/essence s/he is seeking to develop. The "feedback should" be done based only on a previously arranged contract that specifies the principles and arenas to be included. The "feedback" best comes in the form of questions that increase self-reflection and therefore self-governance toward the aims in the development plan, aims designed to evolve the uniqueness and distinctiveness of the individual and evolving in the contribution they seek to make. Wholistic, optimizing feedback comes from ourselves, our reflections; feedback from others tends to be maximizing in nature inviting runaway

Without these criteria, there is a high rate of probability in introducing runaway and increasing loss of self-reflection capability and, therefore, self-governing capability. When working from a development plan with specific contribution and development designed in, the system itself can interpret the information it extracts and converts it into optimizing feedback. Since the development plan itself has built-in the specific contribution that the person is seeking to create, the plan has a whole context in which the information can be used to create the next evolution and development for those using it and for the beneficiary of the

contribution. Without this whole context, the interpretation tends to become more ego centered in its nature and again makes optimizing difficult. Any part of a system cannot truly manage its own behavior without the context of these other systems in which it engages to ensure vitality and viability of the whole.

Question asking, of the type proposed here, in the Socratic tradition, is a lost art. It is even frowned on in much of American culture, because it implies ignorance, or in the case of children toward adults, produces annoyance. In science we have a multiplicity of fields focused on assessing the quality and validity of answers. We have game shows and education processes that reward the learning and producing of answers. We have virtually no processes for learning to develop questions or for assessing the quality of questions we can pose. Businesses and teams would be better served by training in "question development" or "question posing" than in the pure focus on communication of our already developed ideas to others. Questions are the source of newness and regeneration and yet we spend 99% of our life acquiring answers and the ability to get more answers. Questions, if they are posed for the questioner and the questionee both to be open-ended in terms of the possible answers, create a much different environment than when we ask questions already knowing the answer we expect (often as a teacher or parent does).

A profound test of the value of questions in human development can be seen in a program developed at the University of Arizona for helping education deal with "slow" learners. The programs worked on developing Higher Order Thinking Skills (HOTS) and used what the call the Socratic Method as the base of the program. Teachers ask questions rather than offering answers. The core belief was in the development of the children rather than the providing of knowledge.

The results posted by schools using the HOTS approach are remarkable, particularly in view of the fact that most of the students entering the HOTS program are considered to be remedial or at-risk students: Ten percent (10%) of the students were reclassified as gifted at the end of one year, and thirty-six percent (36%) had made and retained a position on the school Honor Roll. Of the four students ranked as the top academic learners in one school, two were HOTS participants who had come from the bottom of the class. Participating students gained an average of 15% on standardized reading and math tests in

one year, or 67% above the national average in reading and 123% above the national average in math. Significant improvement in every student's self-concept was noted. They reported feeling increasing confidence to succeed at levels significantly beyond those that they originally felt capable of achieving. A tough inner city school, after one year, no longer had any discipline problems with any of the students in the program.

If you transfer this to a business setting you can quickly see the power of working from a "feedback" model based on questions—open ended questions designed to explore and discover. These statistics translate to a workforce increasing its capability at a rate from 67-123% faster than the competition; half of the major promotions into new challenging positions coming from people considered unpromotable or "topped out"; workers formerly considered discipline problems becoming fascinated, committed, and self-disciplined contributors. This is a very powerful model from which businesses could learn a great deal, the primary learning being the value of questions over answers for the purpose of creating learning and development in organizations. (Sanford: 1993)

PREMISE 5: Understanding Projection as a Limiter in Feedback Processes

Most feedback from outside the system causes maximization of a part or an element, rather that optimization of the whole and creates runaway for the reasons already stated. In addition there is another problem with feedback. Humans without a great deal of development and consciousness in the moment, of their own inner thoughts and emotions, speak more out of projection of their own dysfunctional elements, rather than any reality they see outside of themselves. When groups, providing feedback for other groups, come together, they tend to collude, unknowingly, to offer group projections. For this reason it is important to develop processes in any situation where feedback or information is shared, to overcome the almost universal tendency toward projection.

Æsop in the creation of tales to help us learn to live life more effectively tells a story of how all carry two bags, one in the front and one on our back. The one on our back is full of our limitations and defects, which we cannot see. The one in front is the defects of others, which is very visible. We can always see the shortfalls and failings of others, but we cannot always tell which way the bag is facing. Sometimes we put the back

on in the front and think it is the failings of others we see, when it is really our own that we see as belonging to others.

In cognitive psychology, this is a very well understood practice. Frequently people are asked to describe the faults they see in others or the changes they think others should make, as a way for the psychologist to understand the person through their observations of others. Because without development, we tend to have very limited skills in self-reflecting, it is difficult to see this in ourselves. Self reflection may be one of the least developed parts of ourselves and without it our feedback to others may cause damage in teaming and cross-functional processes or at least limit the potential we are after.

How is it that people, who would never do so intentionally, deceive themselves and become convinced that what is in front of them is *real* and their observations are *valid*. David Bohm, the Nobel Prize-winning physicist has provided an explanation of how this happens. He suggests from his research that we need to learn to differentiate between thinking and thought. *Thought* is made up of ideas that we hold in memory from past experiences that have been repeated many times or have been introduced in a highly emotional way. These thoughts hold a

strong place in our minds and mental processing; so much so that they close out any ideas that might enter that give an alternate view of a situation. He describes thought as very active, in that it is participating in the interpretation of current events but providing old preset interpretations. Our thoughts are not telling us the way things really are in a present situation but are telling us what was concluded as true in historical situations of a similar nature and is now being projected again onto the current situation. We are not thinking, but are being thought by our own history. He similarly points out that we rarely have feeling, but rather have "felts" that are part of our recorded history. These thoughts and felts even have been stored in neural networks in our mind and are retriggered whenever anything remotely similar appears in our field of experience. Our old thoughts are still alive in the present and interpreting our present experiences, closing off any new ideas that may conflict with the current held thought. Since left on its own this is a very depressing thought, it is important to know that there are options for us as human beings. This understanding of the process of moving from thought to thinking is a fundamental part of the self-accountability and seeing the nature of "Socratic feedback" that can enable change.

Premise 6: Developing Change Wholistically

Behavior of a part is the result of an interconnected set of patterns of a whole system and the wholes has to be considered when working to change or correct any part. For this reason it is not possible to effectively isolate an individual element (e.g. person, team) for change. An example of this is isolating a person who has a "discipline problem" and working to "fix him/her" without understanding the systems relationships that need to be understood and developed at the same time.

Cybernetic theorists discovered even in working with artificial intelligence, that they had to give up the idea of linear cause/effect influence, one action causing one effect directly. In the non-mechanical world of human life, the causes for any effect emerge from many interacting elements occurring simultaneously, and therefore must be engaged with in an interactive way. In working with a purely cause and effect model in the human interactive world, we are using a model of science that has been proven to be vastly incomplete. In order to bring change to an

element of a system, we have to consider the dynamics of the whole and work in wholistic ways. This systems view enables us to design change from an integrated perspective, but requires we let go of the security of programs that focus on specific functions, classes of people, and classes of problems. The isolated measures that are used must give way to whole systems measures that track the overall progress of the system but are difficult to trace to the "cause". Without this approach we invite individuals, systems, and functions into "runaway" with the risk of sub-optimizing the whole.

One of the best ways to look at a "problem person, or set of problem behaviors" in the organization, is as an "early warning system" for changes which are needed of a broad nature in the overall system and in the leadership processes. Organizations that are able to work from this form of development, have found that some individuals seem to be more susceptible to dysfunctional organizational systems and processes, maybe because there families were, maybe because they are more open emotional. For what ever reason, if instead of punishing such persons or seeking to get them back on track, we bring them into processes that assess where there are changes needed and to better understand what

high leverage design for change, that can prevent an escalating problem. Sometimes part of the system breakdown, which needs help, is at home. But this part of the employee's life will affect work, as many businesses know. It takes a very different valuing of behavior to work in this way—it takes seeing people as always attempting to develop and contribute their potential and having only gone into runaway because they do not have capability to engage in this process or when the system they are a part of is blocking such opportunities.

Summary:

For any collective group to be viable, vital, and evolving appropriate to the changing world in which they live and work over the long run, the individual members must be self-accountable and self-governing within the context of and have a stewardship for the welfare of the whole of which they are a part. For any individual to become self-managing of their own behavior, they must be aware of their behavior and its impact. A fork in the road occurs at this point where those who advocate "external feedback" as the solution to this problem take one road believing that people cannot gain the needed awareness without it. The

developmental model from living systems takes a higher road in that it is based on a belief in the individual has the capacity to be self-managing of their own behavior once they have the capability to be self-reflecting. To have the capacity of selfreflecting, is to be able, on demand by oneself, to see one's self in the moment of action and to regulate and adjust one's own behavior while in motion. We all have an experience of doing this on some occasions. The aim is to make it more routine and accessible in all situations. In the developmental version of the human story, one works to develop capability to be self-reflective through the creation of development plans that provide for the inner work and outer contribution needed in such an endeavor. One establishes alliances with others who know well the "selfwork" that each person is doing and to serve as a resource in support of this development. It is more a Socratic process than a "feedback process", a learning to learn and learning to develop process—particularly regarding evolving our potential, and a connection to a set of aims that make a greater contribution possible. Feedback from others, especially if received unconsciously and indiscriminately, becomes out of context and disabling.

Beyond the impact of the "feedbackee", there are problems with the impact on the persons giving feedback. Major difficulties come from the nature of process involved when we try to observe others objectively. Again without development this inner process is invisible to us. What we think we see in others is frequently a projection of what we cannot see or tolerate in ourselves. In feedback processes this goes unexamined and tends to be buried deeper from having not owned up to it in ourselves. The second difficulty comes from the assumptions that individual behavior is isolatable and can be worked on independent of the system as a whole, which the researchers in living systems and quantum science theory tells us is an illusion. The whole must change in an integrated way for the elements to evolve in any meaningful way.

Another way to understand the shift in paradigm that is needed is to look at the difference between a homeostatic and heterostatic model. Our internal, biological thermostat functions as a homeostatic process but human development also requires a heterostatic process. In a homeostatic model the effort is directed toward creating sameness repetitiveness and not allowing in anything that is not like the existing model or standards. When we try to create a

nation of one race or garden free from insects, we are seeking to maintain a homeostatic process. When our temperature rises in response to a virus, our body is seeking to regain homeostasis. This model is a part of everything living and has a high degree of usefulness for ensuring viability of an entity. However when we apply this concept to organizations, in isolation from the dynamic system in which an entity exist, we tend to operate them more akin to a closed system governor, as a piece of machinery. We have used a mechanical worldview to understand a living system process. We get very narrowly focused on prevent anything that could cause de-stabilization or disturbances leading to error or variance. This can lead us, when done without a broader context, to the establishment of rigid procedures, and behaviors that must be adhered to. Even when we think we are making changes in a homeostatic mindset or model, the changes that are made are structured in accordance with existing procedures. Our focus is primarily or only on steady state, not evolution.

Does this mean we should not try to use the homeostatic model for organizations? Not at all. It is critical to survival. But we need to be able to look at the dynamics present in and around a living system. Homeostasis in the biological

world involves a process of adaptation to or adjustment to the environmental changes that occur daily or yearly. Its purpose is to keep the living entity stable even when there are fluctuations are occurring around it. (An animal gets a heavier coat for winter and sheds for summer). The steady state phenomena of a homeostatic process tend to resist outside forces of change. Self-regulating devices are firmly established to prevent going outside of proscribed boundaries. This has allowed the planet on which we live to maintain a steady temperature for millions of years and for life to flourish. In the biological world, when changes of a different origin or nature arrive, living systems will seek to use similar processes to adjust to the environment change or modify their own activity to temporarily compensate. If the adapting mechanisms are not sufficient it may not survive. (e.g. birds in an oil spill). As a leadership model, homeostasis serves us well for that which is habitual, reversible, and fairly shallow. This form of change is basic to the survival of the entity in a fluctuating environment that cycles regularly. It may be very useful for handling service orders that tend to cycle seasonally, or training for employees on new machinery where new manual skills are introduced. It is helpful for many other

cyclical situations and ones where deep structure change is not needed. The challenge is to not view human beings through this mechanical worldview.

The highest success in business, child rearing, and in life comes from seeing every person as unique and evolving, and capable of participating in the evolution of all organization systems or program. By operating with these premises, we are able to design at a rate that is more rapid than we can image and provide more relative competitive leveraging than we can possible achieve, giving feedback to one person at a time by external guides.

References:

Berman, Morris. (1988) The Reenchantment of the World. Bantam Books. New York. regarding cybernetics principles and feedback

Bohm, David. (1994) Thought as a System.

Routledge: London and New York

Danziger, K.(1979 "The Social Origins of Modern Psychology" in <u>Psychology in Social Context</u>. Allan Buss (Ed.) Irvington Publishers. New York

Korzybski, Alfred. (1974) Manhood of Humanity. The International Non-Aristotelian Library Publishing Company. Lakeville, CT.

Sanford, Carol. (1993) "Business and Education: Some Uncommon Sense About Learning". A SpringHill Publications Occasional Paper. Battle Ground, WA. 98604