Measurement as a Transformative Tool: The Culture Assessment

INTRODUCTION

Historically, we have relied on incident, injury and financial data to measure the bottom line in safety, but recently we have become dissatisfied with their limitations: post-accident statistics do not tell us what we need to know to prevent the next incident. Incident statistics just measure failures after the fact; they do not identify system error or evaluate safety programs. Consequently, safety professionals agree on the need to expand the range of measurements beyond incident rates.

Continuous improvement in quality has provided us with new processes and tools and a new direction in measurement--a focus on "leading" rather than "lagging" indicators, which is to say, on the kind of data accessible early enough in the process to effect the outcome if change is instituted accordingly. In the context of safety, the focus on leading indicators affords an unmatched opportunity to prevent accidents.

This paper will not address technical or engineering issues but will confine itself to the people side of safety--to measuring those cultural processes that enable the health and safety program to work such as communication, trust, leadership, commitment, peer group norms and organizational influences. We call the mechanism for measuring cultural processes a **culture assessment.**

The culture assessment measures kinds of leading indicators that can make or break a safety program. Its value to the measurement repertoire is equaled if not surpassed by its importance as a resource for launching the organization into a culture change that will make way for a sustainable leap in performance. The latter requires a theory-grounded organizational model and a disciplined approach to organizational change. Both are described below. First, we explore why the assessment of culture is critical.

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WHY MEASURE CULTURE?

Just as the surgeon should order diagnostic x-rays before operating, so the organization should carefully assess its culture before initiating change. Without advance inquiry into the root beliefs, norms and assumptions that drive people's behavior, even the best programmatic efforts may be misdirected. To insure attention to the sources rather than the symptoms of safety problems, that inquiry should yield:

- Description of the organization's prevailing culture
- Evaluation of cultural readiness for change
- Identification of affected parties
- Determination of appropriate areas for intervention

Measuring the safety culture identifies leading indicators of the safety process, which serve as ongoing metrics for preventive factors that affect end results, not simply after-the-fact accident frequency statistics. These leading indicators comprise a context for a comprehensive view of the current safety process.

Moreover, a culture assessment creates an ongoing cultural data base. Whereas, ordinarily only a few employees voice strong opinions and management has no way of knowing how widespread or important the raised issues are, the culture assessment process institutionalizes frequent investigation of both surface and in-depth issues to present a global safety culture picture. It poses such questions as, "Does my boss care about me or just the numbers?" "How safe is safe enough?" "Will I be backed up if I stop an unsafe job or will I be labeled a trouble maker?" The answers reveal ways people relate to each other. Without data, decisions in safety are made on feelings and opinions. Only with data--clear, dependable and fact-based--can change agents analyze the need for change, define its specific direction, and make the requisite commitment to it.

Concentrating on safety as a single, strategic, operational area concurrently generates insight into key issues that impact other performance areas such as productivity, quality, cost control and even customer service. A safety culture assessment is a lens through which to view the organization as a whole. Yet, unlike unwieldy organization-wide studies, a safety culture assessment is focused and correspondingly cost-effective in terms of both time and money.

In sum, a culture assessment can be a catalyst for transformational change. The holding up of a mirror of the organization's strengths and deficiencies for its leaders is often experienced as an emotional event that triggers a change impulse in companies where previous attempts to overcome

inertia have failed. It makes the case for change by sending a personal, meaningful, powerful message quite distinct from the customary "Get your numbers down!"

A TRANSFORMATIVE CULTURE ASSESSMENT IS NOT JUST A PERCEPTION SURVEY

The culture assessment process that becomes a catalyst for organizational transformation is not to be confused with the popular, off-the-shelf products referred to as "culture perception surveys." Its transformative potential derives from five features of which the perception survey is only one part (see 3, below).

The Transformative Culture Assessment Is:

1. A change intervention process. A transformative culture assessment catalyzes change by providing leaders with data for developing and implementing strategic initiatives that mobilize people in a new direction.

2. Based on qualitative data. Perception surveys are not enough. A transformative assessment requires the insights, instincts and skills of a trained organizational clinician.

3. Based on quantitative data. An effective assessment uses a variety of number-based tools to capture behavior and perception, such as observations and surveys. The quantitative data is useful not only for understanding the organizational culture in its own right, but also for comparing the organization normatively with others. It is particularly difficult to drive change without numbers because the language of management is quantitative. Therefore, the transformative assessment must speak that language, too.

4. A management and leadership tool. Only leadership can change and shape a new culture. The transformative culture assessment must be sponsored by the leadership group (comprised of formal and informal leaders, both union and management) for the sake of the whole organization, not just the safety department. The assessment is a tool to gather information that leaders can use to spearhead the safety culture transformation.

5. Face-to-face communication. The findings of a culture assessment have optimum transformative power when presented live to the leadership group and the rest of the organization, in keeping with the strong emotional component of the motivation for creating and sustaining change. In-person sharing of the results of the assessment maximizes opportunities for honest self-examination and informed commitment to change.

USE OF A MODEL WHEN ASSESSING A CULTURE

The transformative culture assessment is best used in conjunction with a research-based model grounded in theory for three reasons. First, the model ensures a comprehensive approach to evaluating the whole organization. Second, it provides a shared framework for interpreting data and developing recommendations. Only by means of a shared vocabulary can vision be communicated and translated into action throughout the organization. Finally, and crucially, a scientific model enhances the credibility of the findings and helps to elicit the support of "show-me" skeptics.

The model used throughout this paper has been applied for more than ten years in over one hundred culture assessments with Fortune 500 companies in both manufacturing and service areas. These include chemical plants, hospitals, research labs, turbine manufacturing operations, auto assembly plants, engineering concerns and utility plants. Its effectiveness in generating cultural interventions to improve safety performance is documented in the endnotes of this paper.[1]

The model proposes an original interdisciplinary approach to culture assessment. It incorporates theories from organizational development, organizational psychology and organizational culture, while applying the technologies of change management and employee involvement to assist leaders in transforming their safety cultures. The model is called the Simon Open System (S.O.S.) Culture Change Model™.

The S.O.S. Culture Change Model™ is based on a framework (Figure 1) that views safety performance as an integral part of organizational work, technology, systems, people and culture. The S.O.S. Model embraces a whole systems perspective rather than focusing on individual, fix-it strategies because without a comprehensive model, one cannot be assured of capturing all of the elements that might be impacting safety performance.

The S.O.S Model is designed to evaluate the safety process by dealing with a wide range of leading indicators to safety performance, inclusive of both the structural and technological factors that go into creating a safe environment, and the cultural influences that shape safety norms or behaviors. It develops a profile of the barriers and supports within the organization that affect its ability to manage safety efforts in order to provide a road map to design strategy for performance improvement.

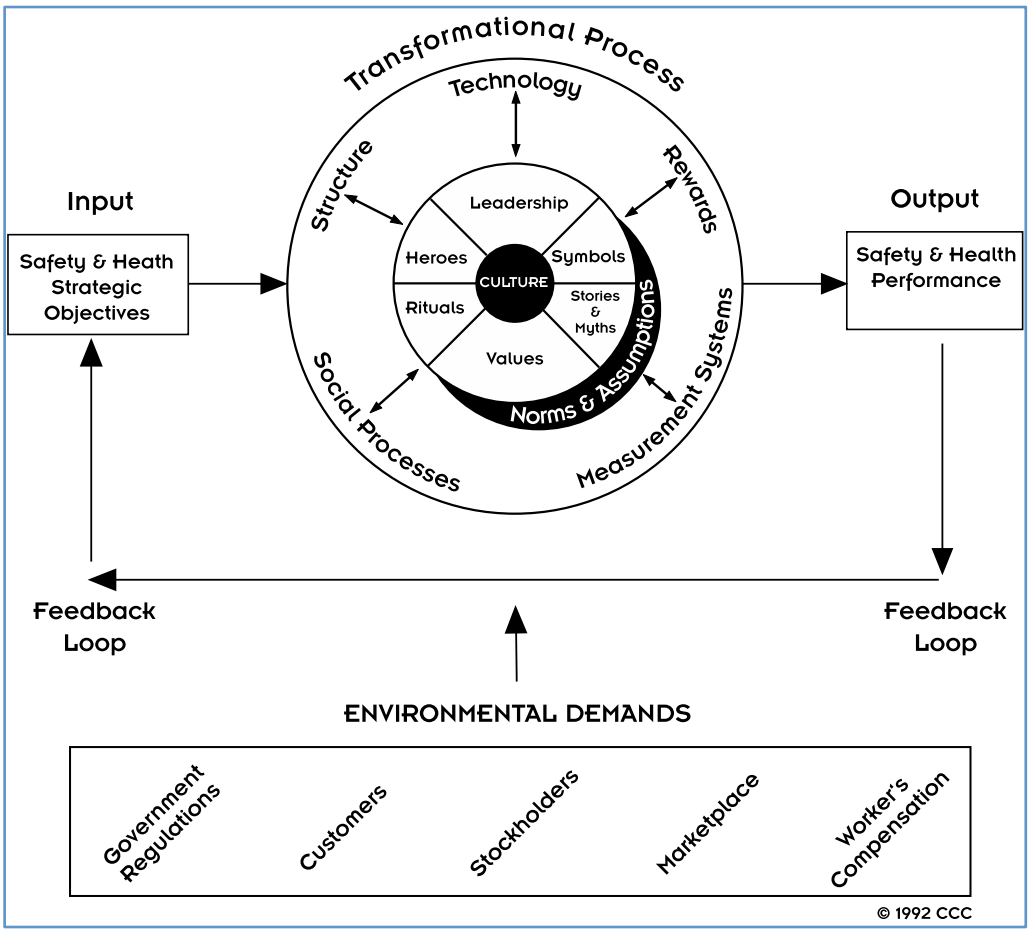

Figure 1. *S.O.S. Culture Change Model™: A Framework for Diagnosis and Action Planning.*

In this culture assessment model, four areas of influence that determine the quality of safety performance in organizations are highlighted: **(1) External pressures** such as the marketplace and government regulations influence companies to set goals and initiate improvement strategies; **(2)** The quality of **strategic planning and resources** applied to achieving those goals influences the process and outcomes; **(3) Organizational systems must be aligned** to support change initiatives; and, **(4) The culture must support implementation.**

The external environment that influences safety performance includes government regulations, customers, stockholders, workers' compensation costs, and the market place. Pressures from any of these groups influence the company's safety strategy and objectives. For example, a rise in workers' compensation costs can result in a company objective to reduce accidents. A strategy is then formed to achieve these objectives. For this reason, strategy is viewed as "input" to the organization.

The organizational and cultural systems of a company comprise the transformational process which determines the quality of "outputs" or safety performance. Ideally, the organizational and cultural systems of the organization are in line (aligned) with the strategic objectives. The two-direction arrows between these symbolize a reciprocal influence. Organizational systems influence culture, and culture influences organizational systems, etc. It should be noted that norms and assumptions are depicted as a shadow behind culture because although an integral part of the safety process, these are invisible.

Finally, the environment evaluates performance (output) and gives positive or negative feedback to the organization. For example, increased accidents could result in higher insurance costs, shareholder discontent, government penalties or community resentments. This feedback will in turn affect organizational strategy and the cycle begins again.

In particular, the S.O.S. Culture Change Model™ examines six organizational systems and six cultural systems, each a leading indicator to improving safety performance. Tables 1 and 2 break down the components and define their meaning.

Table 1. *Itemization and Definition of Organizational Influences*

ORGANIZATIONAL INFLUENCES	DEFINITION
Technology	How the work is done.
Program Structure	Training, policy, procedure, etc.
Rewards	Promotions, compensation, awards.
Measurements	Leading as well as lagging indicators of safety performance.
Social Processes	Trust, communication, caring, relationships.
Environment	External business pressures to improve safety performance such as government regulations, customers, stockholders, workers' compensation costs, and the market place.

Table 2. *Itemization and Definition of Cultural Influences*

CULTURAL INFLUENCES	DEFINITION
Leadership	Establishes vision and sets example for the new safety culture in a way that leads the organization towards zero injuries.
Symbols	Physical or visual reminders of important safety values.
Values	Spoken principles such as "people are more important than numbers" that guide the decisions of workers and managers.
Heroes	Organizational members that role model the values.
Rituals	Regular celebrations, ceremonies or activities that reinforce the importance of safety.
Norms and Assumptions	Norms are the group's expectations for safety behavior. Assumptions are the beliefs about what is safe or unsafe and why it is commonly accepted to perform a job in a safe or unsafe manner.

Open systems theory means that there are many "right ways" to achieve a desired outcome. Use of an open systems model to produce a safety culture assessment means that action plans will be tailored specifically to each facility's needs.

THE S.O.S. SAFETY CULTURE PERCEPTION SURVEY™

The perception survey is a valuable tool for determining where an organization is at present in that it measures norms and assumptions as well as management systems. It provides quantitative measurements for such "soft" issues as belief in management commitment to safety, trust, caring and communication. There are numerous studies in the research literature that show that accident frequency rates and workers' compensation costs correlate with employee ratings of the safety culture as measured by perception surveys.[2]

Like the broader culture assessment process, perception surveys also are based upon either an implicit or explicit model within whose framework perceptions are interpreted, and the model is in turn either research and theory-grounded or not. Certainly, the greater the research and theory base,

the greater the scientific underpinning of the instrument, and the more likely it has the potential to generate meaningful organizational change.

The perception survey derived from the S.O.S. Culture Change Model™ has 51 statements that are rated on a Likert-type 1-5 scale. The 51 statements are indexed according to twelve subscales (defined in Tables 1 and 2). The twelve organizational and cultural dimensions that are measured are leadership, rituals, values, norms, rewards, measurements, structure, social processes, technology, environment, heroes and symbols. The survey has been administered to more than 100,000 employees at more than 100 facilities. The use of the survey as a part of the overall culture assessment process is illustrated in the case history that will follow.

CONDUCTING THE CULTURE ASSESSMENT: 4 STEPS

In using the S.O.S. Culture Change Model™, we recommend a 4-step process to analyze the current organization and plan future strategies.

Step 1: Gather and Analyze the Data

Step 2. Chart the Data onto the Culture Assessment Model

Step 3. Deliver Face-to-Face Feedback

Step 4: Initiate Action Planning

To illustrate the four steps of the culture assessment process, we shall apply them in the context of a composite case study of an oil refinery. The assessment takes place at the Sandblast refinery of the Good Oil Company. The Good Oil Co. operates refineries around the world. The Sandblast refinery has nearly one thousand employees and is structured around three major departments: Process, Mechanical and Technical/Administrative support. Process and Mechanical departments have approximately 400 employees each; Technical and Administration, 200.

Step 1. Gather and Analyze the Data

Data is gathered during a culture assessment in three chief ways:

- Observations
- Interviews
- Perception Surveys

In all three data-gathering modes, the assessment should be conducted in a highly inclusive and participative manner. It is, of course, critical to enlist members from all levels and all parts of the organization in order to develop more accurate information, and to obtain buy-in needed to implement the necessary changes. Let us look at each method of data-gathering in turn.

Observations

Observations are conducted in as many different work settings as possible. Observations focus on the mundane aspects of a safety culture: What safety reports are people asked to complete? How do people talk to each other about safety concerns? From management, who is present or absent at safety meetings?

Observations reveal data about both the tangible and behavioral features of a culture. The first category includes artifacts, like company safety policies, accident logs, safety bulletin boards; rituals, such as safety themes, stories and myths; and, people, like department heads, division presidents, head of the union safety committee. The second category embodies behavioral norms in action, the prescribed and proscribed safety behavior at work, in safety meetings and management discussions, such as sleeping at meetings, glossing over accident investigations in management sessions, and leaving the chock in the truck when parking. It is important to note that the same or similar behaviors may mean very different things and have different consequences, depending on what they mean to people in a particular culture. Reporting a near miss to a boss in one plant may earn the employee a citation for excellence and a $500 bonus at year end; while in another plant, the employee may be handed a final paycheck.

> *During the initial culture assessment at the Sandblast refinery, we observed management staff meetings. At one meeting, an hour was devoted to safety.*
>
> *The head of the Mechanical Dept. decided that trying to plan for safety was a waste of time because the site had other problems that needed to be addressed first; he informed the group that he would be against any new focus on safety, that they were "safe enough." He said the main problem at the site was "Capital-L Leadership" which he defined as the use of discipline and enforcement.*
>
> *The head of the Process Dept. sat quietly and announced he was in favor of any good efforts in the safety area because it is always important to keep fresh, new programs coming out in safety to keep people alert.*

The head of the Technical/Administrative Dept. said his people never had any accidents, so whatever the others decided would be fine, and he needed to leave to attend to some work. He got up and left.

The Plant Manager affirmed that safety was important, and that he was going to implement a new safety program. However, he held back from directing the head of the Mechanical Dept. to endorse the new program and give it a fair shake.

Interviews

The interview is a general data gathering method involving face-to-face inquiry of members in the organization. It can be structured or unstructured, individual and group. The interview will supplement data gathered by observation and will often uncover the meaning behind the artifact; it can determine, for example, whether the safety statistics posted on the bulletin board are perceived positively as an effective communications device or cynically as mere compliance with regulation. The interview identifies the root structure of underlying values and beliefs of the safety culture. It answers key questions: Are there many or few shared beliefs? How widely or narrowly are values held? How strong are safety values compared with other company values like productivity, cost-effectiveness and quality?

Perception Surveys

The value of perception surveys rests in their capacity to supply insights about how company safety programs are affecting workers. Plants have found that survey results provide a realistic, useful portrayal of employee opinion. Plants have used these surveys (1) to discover strengths and weaknesses in current safety programs; (2), to focus improvement efforts; and, (3) to provide a baseline against which to measure future progress.

Data Analysis

The data analysis x-rays the organization's unique cultural anatomy. The cultural data bank generated by the interviews, observations and survey-based perceptions is valuable as a repository of its organization's cultural wealth: its stories, values, symbols and norms. By sifting carefully through the evidence, we can understand what the observables really mean to the organization's members whose idealized picture is supported or rejected by the actual norms revealed in their behavior.

At Sandblast, we discovered through observations, interviews and surveys a central organizing principle. What emerged was the presence of two distinct, oppositional safety sub-cultures, which formed along departmental lines.

The Mechanical sub-culture is negative and very strong. It views safety as the imposition of arbitrary and illogical regulations, to wit: "Any mechanic can perform his job without injury as long as he's doing it right. If a mechanic gets into an accident, it is his own fault, he should have known better, and there is nothing anyone else can do or could have done to help prevent it." The Department head is a charismatic Theory X manager, a "tough guy" raised in the old school who believes "you get what's coming to you, earn your own way, and teamwork is truly a bunch of crap." He believes that most safety procedures are an excuse for worker slowdowns, and is outwardly cynical toward them. The only accident prevention he believes in is open criticisms of injured workers.

The second sub-culture is comprised of the Process and Technical/Admin-istrative Departments. Its members have a more enlightened attitude, believe that good safety is good productivity and good business, and hold that accident prevention is an investment in the long-term growth of the company. The Process Head sends his people to safety training and encourages them to conduct their own job safety analyses at work, which they share at tailgate meetings. He supports the Safety Department's efforts at safety inspections, has set up a small safety award program for his own department and appears personally to congratulate the winners at the ceremonies. He is involved all the way. Process Supervisors take extra care in job set-up and won't sign off on the safety of a job for one of their work crews without personally reviewing the proposed tasks and safety solutions.

The Technical/Administrative group see their own area as low-risk and rarely have any injuries or accidents. The Technical Safety Committee consists of office workers and some engineers, and they create fresh safety awareness programs annually, maintain a safety bulletin board that changes every month, and regularly do spot inspections throughout the administrative center. Although these activities may appear thin, the Technical/Administrative Dept is proactive in identifying safety issues, and quick to respond to safety concerns.

The Plant Manager, a key figure, is unfortunately a weak leader for safety. Although he professes safety as an important value, and is quite supportive when meeting with any

representatives with whom he sees eye to eye, he does not intervene to resolve conflicts that arise between the two sub-cultures to establish that one positive paradigm will rule the refinery.

Step 2. Chart the Data onto the Culture Assessment Model

The second step in the culture assessment process is to chart the data, in this case, on the explicit model underlying our view of culture and organizational factors that influence safety performance, the S.O.S. Culture Change Model™. The model permits easy visualization, almost a culture-at-a-glance perspective, of the relationship between the safety culture and other factors operating in an organization.

The chart or charts when completed constitute a reference tool for planning, decision-making and communication. It is the basis for designing a road map. Periodically updated, the charts can be referred to throughout the entire safety culture change process.

We return to the Sandblast refinery to chart the data gathered and analyzed. "Social Process," one of the twelve subscales identified in Table 1 that is typically measured during the culture assessment, refers to trust, communications and involvement issues around safety. At Sandblast, the social process dimension was rated low on the perception survey; the low rating was confirmed by stories told during focus groups. Key issues revealed:

- *Incident investigations are viewed as inquisitions.*
- *Managers are viewed as willing to listen to but unwilling to act on safety concerns.*
- *A powerful adversarial relationship exists between the Process and Mechanical Departments.*

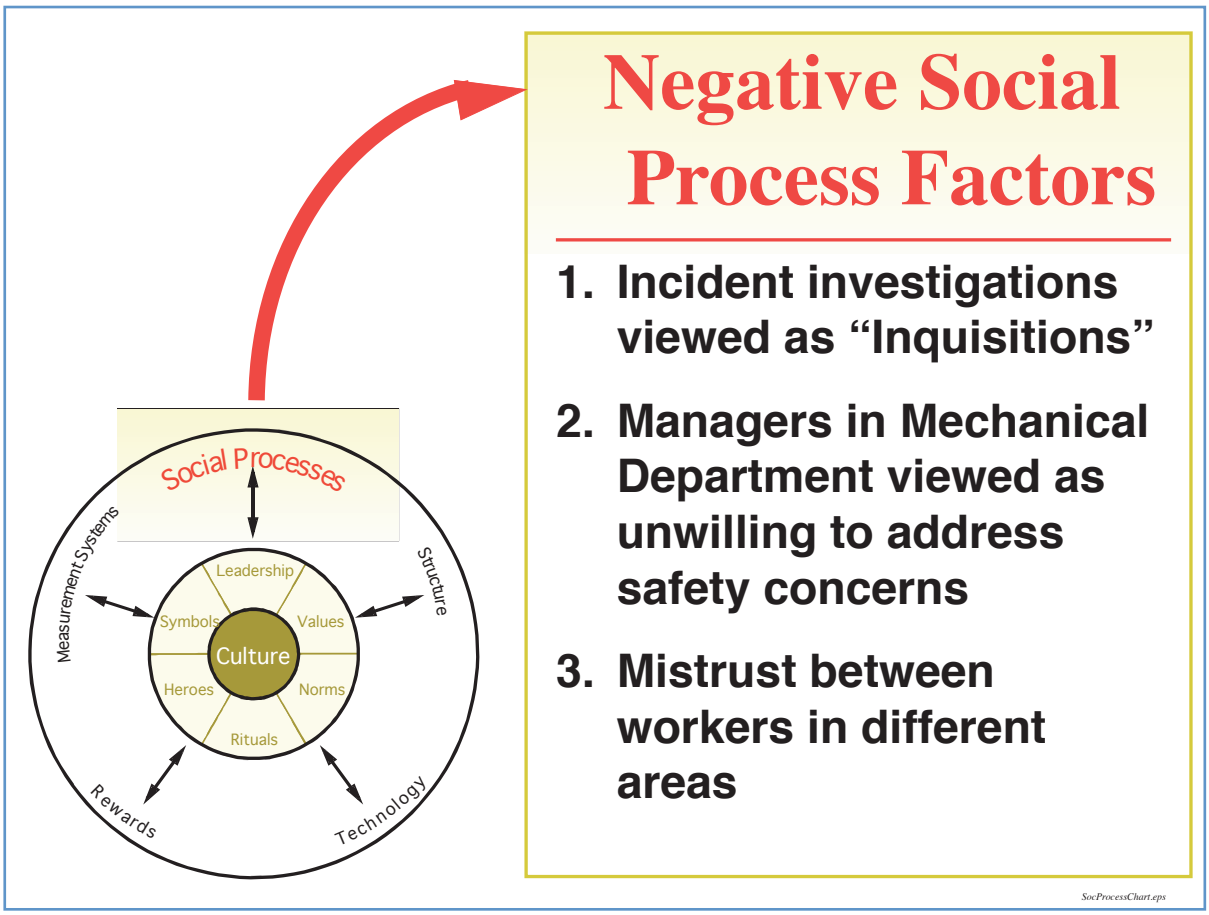

Figure 2. *Charting Gathered Data from the Sandblast Refinery Safety Culture Assessment: Social Processes Sub-Scale*

"Organizational Structure," another of the twelve assessment subscales, also elicited low ratings. Responses revealed:

- *All of safety is viewed as the responsibility of the safety department.*
- *Employee involvement in safety is absent.*
- *Safety is exclusively individual-based with no team involvement.*

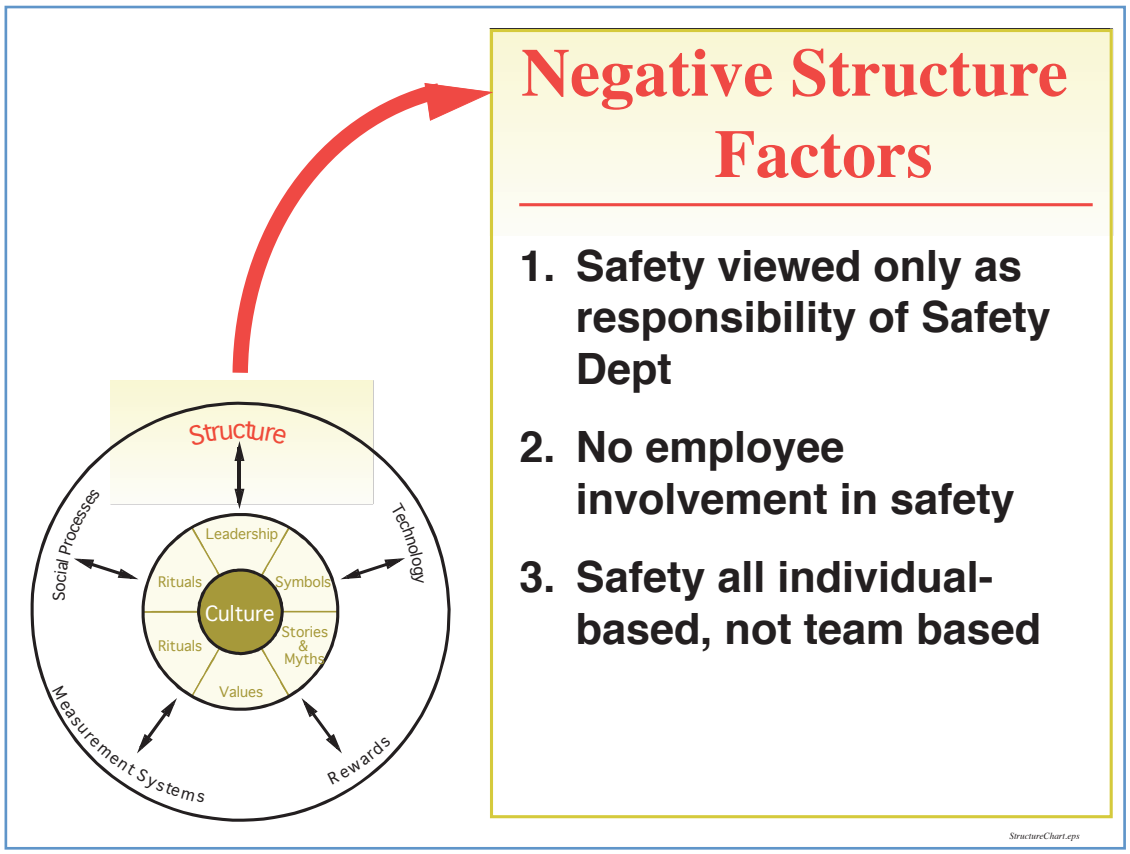

Figure 3. Charting Gathered Data from the Sandblast Refinery Safety Culture Assessment: Structure Sub-Scale

Worrisome findings surfaced also in relation to the leadership, values, symbols and norms assessment sub-scales.

First, the leadership battle for control of safety rages between the Process Head (proactive) and the Mechanical Head (status quo). On the values front, the Mechanical Head thinks the site is safe enough whereas the Process sub-culture perceives grave danger in the safety status quo. It is in the symbols arena that these attitudes are played out, as illustrated by attendance at safety meetings. (During the annual "Safety Day," one group turned chairs around in the back row, picked up magazines and started to read during the keynote safety talk.)

Finally, norms are where the rubber of the culture hits the road. They sustain the values in place and exert pressure on behavior. Negative norms are held in place at Sandblast by ridicule and reward.

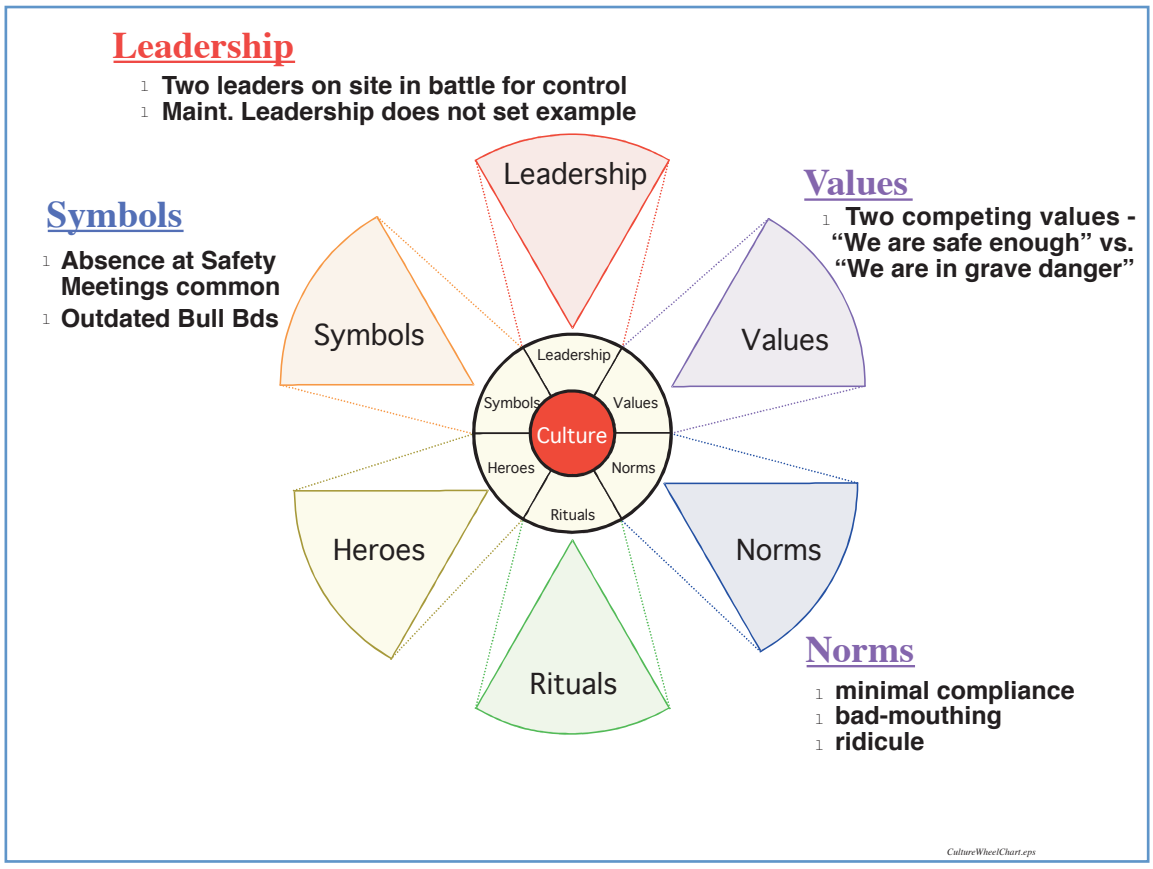

Figure 4. *Charting Gathered Data from the Sandblast Refinery Safety Culture Assessment: Leadership, Symbols, Values and Norms Sub-Scales*

As the rich data from the culture assessment of Good Oil's Sandblast refinery is charted on all twelve assessment sub-scales, unprejudiced, professional analysis of the model data differentiates reality from let's pretend.

Step 3. Face-to-Face Feedback

Once the cultural data are collected and represented graphically, the interactive process of Face-to-Face Feedback can begin in earnest. If the culture assessment is to be transformative, the results need to be delivered personally in such a way that all different perspectives are validated, and everybody recognizes, "Yes. That's us."

"Everybody" includes representatives from the union workforce as well as management. It is important that they meet jointly and hear the results at the same time. Including union members in the feedback session builds collaboration and pre-empts mistrust. A workshop setting is best. Everyone has an investment in the outcome. After both management and workers are satisfied that they understand their assessment results and now share a common perspective, they are equipped to generate sub-teams to repeat the process within each department.

In summary, the Feedback Workshop puts up a mirror to the organization so that key leaders can recognize the culture as its members perceive it. Only then will they internalize the real need for change, and buy in to the culture change direction.

Step 4. Action Planning

The next move, once the leadership group is ready to make changes in the culture, is to look at where they are, where they want to be, and what they have to do to get there. They will:

- Review assessment charts of all twelve sub-scales
- Identify qualitative and quantitative goals in terms of individual, group and organizational performance
- Develop strategies (macro) and tactics (micro) key to achieving each goal

In the case of the Sandblast refinery, asking where they are now reveals a culture divided into competing camps. The end result is a conflict-laden, pressurized atmosphere that could explode, a time bomb. The dominant safety paradigm is negative, dissonant with company goals, and a business liability. This analysis should persuade the Sandblast leadership team that a fundamental culture change is imperative--a precondition for a worksafe refinery, which is precisely where they want to be. What they will have to do to get there, i.e., to realize their long-range safety goals, will involve intervention on both strategic and tactical levels.

CULTURE ASSESSMENT IS A PROCESS

Assessing a culture is not a one-time event; it's a process. It not only supplies a snapshot, but also establishes a loop for trial, error and correction. A first assessment yields data for tailoring the design of the change process; subsequent assessment will surface confirming and disconfirming pictures that support ongoing course correction.

CONCLUSION

The culture assessment at its transformative best is an instrument of change as well as a diagnostic tool. It measures leading indicators in the context of a scientific model, and is concerned not just with supplying data but also importantly, with fostering communication throughout the organization. The consulting clinician's respect for individuals' pain and experience with group dynamics facilitates and supports the dialogue and inspires all factions to collaborate towards realizing a new vision.

ENDNOTES

1. Simon, Steven I. and Rosa Antonia Simon Carrillo. "Innovative Applications of Organization Development Technologies for Improving Safety Performance." Safety Technology 2000: Innovations in Loss Control and Risk Management (June 1995): 350-353.

   One study reported in the research literature tested the hypothesis that using assessment findings to design an interdisciplinary approach to safety management would result in improved safety performance. Ten facilities belonging to the same corporation were involved in testing the improvement intervention. Seven out of the ten facilities that implemented the proposed intervention showed decreases in workers' compensation costs from 12.5% to 97% with an average of 62%. Three facilities showed increases. The company as a whole experienced 45% reduction in workers' compensation costs in the experimental group. Thus the proposed intervention to use the culture survey to locate barriers to safety and design strategies for process improvement was found to be successful. The full research report appears in the paper referenced at the beginning of this endnote.

2. Ibid.: pp. 345-349.

   A second study conducted by Culture Change Consultants (CCC) tested the correlation of survey results with workers' compensation costs. Ten facilities varying from 250 to 40 employees participated. Results of the study revealed that ten of twelve subscales of the safety culture perception survey showed a strong positive correlation with workers' compensation costs. The strongest correlations were in the areas of technology (.93), social process (.89), leadership (.84), and symbols (.84).

   A third study was conducted with eleven companies to test the correlation of survey results with accident frequency rates. Participants in the study varied in size from 50-500 employees

per site and varied from the chemical, maintenance, utilities and service industries. Once again, results showed clearly that survey scores correlated to safety performance as measured by accident frequency rates. Companies with higher survey scores have lower frequency rates. The correlation was .69, with p=.018. Findings indicated a correlation between organization member perceptions of the effectiveness of the total safety system and safety performance. The full studies are presented in the reference at the beginning of this endnote.

BIBLIOGRAPHY

- Nadler, D.A. and Tushman, M.L. "A Congruence Model for Diagnosing Organizational Behavior", Kolb, I. Rubin, and J. McIntyre (eds.), Organizational Psychology: A Book of Readings (3rd ed.), Englewood, Cliffs, NJ, Prentice-Hall, 1979.
- Schein, E. H. Organizational Culture and Leadership. San Francisco: Jossey Bass, 1991.
- Simon, Steven I. and Rosa Antonia Simon Carrillo. Grassroots Safety Leadership™: Guidance Team Edition, Seal Beach, CA: Culture Change Consultants, 1996.
- Simon, Steven I. and Rosa Antonia Simon Carrillo. "Innovative Applications of Organization Development Technologies for Improving Safety Performance." Safety Technology 2000: Innovations in Loss Control and Risk Management (June 1995): 338 - 356.

BIOGRAPHY

STEVEN I. SIMON, Ph.D. is President of Culture Change Consultants, Inc. and an organizational psychologist with 30 years experience guiding companies through successful culture change to improve safety performance. Dr. Simon has conducted over 500 safety culture assessments for such organizations as GE, General Motors, Southern California Edison, MillerCoors, Smithsonian Institution and other major corporations nationwide. He also co-developed the S.O.S. Safety Culture Perception Survey™, a validated instrument for assessing employee and management perceptions of twelve organizational and cultural factors that correlate to safety performance and workers' compensation costs. Dr. Simon is a featured speaker at the National Safety Congress, ASSE's Professional Development Conference, and at company management meetings. He is listed in "Who's Who in the Safety Profession." Dr. Simon holds the Ph.D. degree in Clinical Psychology from Harvard University.