ESADE

A New Model of Leadership

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In a university context the world over, it is not unusual to find preferential treatment given to the study of certain subjects that stand out for their importance or for their public interest. In these cases, one of the preferred options is the establishment of a chair, understood to represent a unit of academic excellence.

The ESADE Chair in LeadershipS and Democratic Governance proposes developing a programme to explore the questions put forward on this subject. The Chair is intended to promote a permanent forum for dialogue between organisations (companies, administrations, NGOs) and actors (entrepreneurs, directors, political, social, civil and union representatives, etc.), currently committed to addressing the challenges of governing a world that is at once global and local. It also aims to deal with the challenge of studying and promoting innovative forms of leadership suitable for today's complex environments.

The Chair's promoters are:

INTRODUCTION

INTRODUCTION

Molt bon dia. Buenos días. Good morning. It is a privilege to have Professor Michael Jensen with us today. Especially as he has just arrived from the United States this morning, so he will probably be suffering from jetlag. Nevertheless, Professor Jensen was willing to participate in this event organised by the Chair in LeadershipS and Democratic Governance. So, given the circumstances, we are extremely grateful to him for accepting this invitation.

I would just like to introduce Professor Jensen briefly. It would take many minutes, perhaps hours, to go through his unbelievable academic and professional career, but let me briefly summarise it for you.

Professor Jensen is Jesse Isidor Strauss Professor of Business Administration, Emeritus, at Harvard Business School, which he joined in 1985. In 2000 he joined The Monitor Company as Managing Director of the Organizational Strategy Practice. Long before that, in 1973, Professor Jensen founded the Journal of Financial Economics, one of the top three scientific journals in financial economics. Almost twenty years later, in 1994, he also co-founded Social Science Electronic Publishing, devoted to the electronic publication of scientific working papers in social sciences. Moreover, Professor Jensen created and co-founded the Social Science Research Network, in which young – and not so young – scholars can present their papers and get feedback during the publication process of their work. This is a very important contribution, which I would like to highlight.

Professor Jensen has received many awards throughout his career. He holds honorary degrees from the Catholic University of Louvain, Belgium; from the William E. Simon Graduate School of Business Administration, University of Rochester, United States; from the University of Bern, Switzerland; as well as from the University of Toronto.

Finally, let me add that it is an enormous satisfaction to have Professor Jensen with us to present his theory on the role of leadership. Having devoted more than thirty years to a "Theory of the Firm", his vision of leadership is of great value.

So, once again, thank you very much for being with us Professor Jensen.

Thank you.

CONFERENCE: A NEW MODEL OF LEADERSHIP[1]

LEADERSHIP AND LEADERS

A. The Literature on Leadership

There is an extremely large and continuously growing literature on leaders and leadership. Bass's Handbook of Leadership (Bass (1981)) references over 4,500 studies of leadership as of the 1981 date of that book, and Rost (1993, p. 46) reviewed over 312 books and chapters on the topic produced in the 1980-89 interval alone (his book contains 25 pages of references), and the rate of output has surely increased in the interim. Indeed, a search of Amazon.com for "leadership" yields 191,530 hits.1 Yet with some brilliant exceptions much of this literature is not rigorous or even useful. It is not our intention to summarize it here. Joseph Rost (1993) does a good job of that in his excellent book, Leadership for the Twenty-First Century. Indeed, with few exceptions there is little that can be said to be a science of leadership. Rost has it close to correct when he writes:

"The facts are that in the 1990's, the concept of leadership does not add up because leadership scholars and practitioners have no definition of leadership to hold on to. The scholars do not know what it is that they are studying, and the practitioners do not know what it is that they are doing." (Rost 1993, p. 8)

"Many scholars have studied leaders and leadership over the years, but there is still no clear idea of what "leadership" is or who leaders are … The problem with [this] statement is not that it is inaccurate but that, having made it, 95 percent of the scholars ignore the statement and write their book, chapter, or article as if they know what leadership is. Worse many scholars write as if their readers know what leadership is and their readers' understanding is the same as their own." (Rost 1993, pp. 13-14)

With some exceptions Ross's statements remain true today. The best of the literature tends to focus on the psychological, personal and other characteristics that can make one person a more effective leader than another, including, for example, managerial mindsets[2] and managerial roles[3]. In addition, the outstanding books by Bennis (2003) and Bennis and Nanus (1997) deal with the essential competencies and characteristics of a leader as well as key aspects of leadership and its functions[4]. The leading books by Heifetz (1994) and Heifetz and Linsky (2002) deal with the challenges of leadership and how they can be met[5]. Heifetz (1994) focuses on how to create a vision that will call people into action and continue to motivate them in the face of the obstacles they encounter. Heifetz and Linsky (2002) describe how to effectively deal with the inherent risk and dangers of leadership. Our model of leadership is consistent with the principles and practices described in all of these books. Seen through the lens of our new leadership model, we believe the content of these books becomes even more powerful.

I will focus on what leadership is, not leadership traits, behaviors and styles, nor how leaders are selected or trained.

B. Definition of Leadership

We define leadership is that set of actions, including language actions (words), whether taken directly or by empowering others to act which fulfills visions, and produces results, outcomes, and consequences that otherwise would not have occurred. Leadership can be evaluated or described in four dimensions: scale, scope, effectiveness, and normative value.

- Scale measures the magnitude of the vision, i.e., the magnitude of the results to be produced.

- Scope measures the magnitude of the effort, i.e., the resources required to produce the result.

- Effectiveness measures the actual results in comparison to the desired results (i.e., the vision), and the actual resources required to produce the results.

- Normative value is the desirability/acceptability of the vision or the results to be produced and the results actually produced. Simply put, are the vision and the actual results assessed as desirable or undesirable, i.e., good or evil?

The scale of Leadership can range from small visions/matters (such as arranging a tennis game amongst friends) to large matters (such as putting a man on the moon). The difference between small-scale leadership and large-scale leadership is the size of the vision or challenge that a person or group chooses to take on. Leadership begins with being the leader in one's own life and scales up from there.

The scope of Leadership is a measure of the resources required to produce results and outcomes that satisfy the vision.

Effective leadership can produce either desirable or undesirable results and outcomes, and the determination of desirable and undesirable depend on both the results and the normative value judgments of the observer. Most readers can identify historical figures who were effective leaders that produced results that were considered to be evil. Our model of leadership does not address this normative dimension.

C. The Four Aspects of Leadership

Our model of leadership consists of four aspects. While these elements can be thought of as occurring serially, in practice, they are usually overlapping and present simultaneously. In addition, while we often speak as though the leader is doing these four functions what we actually mean is more subtle. In a large organization, a single leader cannot do it all. A successful leader will create an environment or culture in which the four aspects of leadership are highly valued and are therefore nurtured, created, applied, and effectively implemented. The four aspects of leadership are:

- VISION: Creating a vision for the future – a vision that goes beyond what is predictably going to happen and therefore goes beyond what anyone now knows how to accomplish.

- ENROLLMENT: Enrolling sufficient numbers of others in making a voluntary and personal commitment to realizing the vision.

- BREAKDOWN: Creating systems that quickly identify and widely communicate the existence of breakdowns – any perceived gap between the committed vision and what predictably will be accomplished given current circumstances and knowhow that is seen as a threat to the realization of the vision. Widespread awareness of a breakdown increases the likelihood that a solution – a breakthrough – will be discovered or invented.

- MANAGING BREAKDOWNS: Creating an environment that successfully resolves the breakdowns. Such an environment supports people in the organization (on the team if it is a project) so they renew their commitment to the realization of the vision in the face of the breakdowns.

D. Leaders

The Oxford Dictionary[6] defines leader as "the person who leads or commands a group, organization, or country". Defining a leader by the existence of followers has a long tradition, but it is not useful in attempting to improve the leadership of organizations. We define "leader" as an ordinary human being with both a commitment to produce a result whose realization would be extraordinary given the current circumstances as seen by the participants, and the integrity[7] to see this commitment through to its realization.

II. LEADERSHIP DIFFERS FROM MANAGEMENT

In an early and excellent discussion of the issues, Zaleznik (1977) (followed by Kotter (1990) and Rost (1985, (1993)) emphasizes the fundamental differences between management and leadership and the potential conflicts between them. Kotter (1990, pp. 3-4) characterizes management as "planning and budgeting", "organizing and staffing", and "controlling and problem solving". More specifically he argues that management involves setting targets and goals, establishing detailed plans for reaching goals, allocating resources, establishing organizational structure, delegating authority and responsibility, monitoring results vs. plan, identifying deviations from plan, and planning and organizing solutions. Building on Kotter's insights, we conclude that management in its purest form is about minimizing risk and maximizing predictability and adherence to plan. In contrast, leadership deals with the unknown, the dreams, the vision that creates something new and heretofore unknown. Not surprisingly, what is seen as possible by one person is often deemed a pipe dream by another. Thus, it is unavoidable that the domain of leadership is one where the results to be produced are accompanied by significantly more risk and uncertainty (and often more controversy)

than what is normally considered to be acceptable in the domain of pure management.

Kotter (1990, pp. 5-7) defines leadership as consisting of the following three elements:

1. Establishing direction.

2. Aligning people.

3. Motivating and inspiring them[8].

Our definition of leadership is consistent with Kotter's, in the sense that his elements 1 and 2 correspond reasonably closely with our first two elements (Vision and Enrollment). Our model of leadership goes beyond Kotter's because his third element (motivating and inspiring, that is, "Keeping people moving in the right direction despite ... barriers to change by appealing to basic, often untapped human needs, values and emotions") does not provide actionable access to the critical last two elements that we emphasize in our model of leadership (that is, creating and communicating breakdowns, and managing breakdowns).

Before delving into our concept of leadership in detail we highlight Kotter's insightful conclusion that leadership and management are potentially in conflict with each other—even though both are required for a well-functioning organization. In Kotter's words:

"...even more fundamentally, leadership and management differ in terms of their primary function. The first can produce useful change, the second can create orderly results which keep something working efficiently. This does not mean that management is never associated with change; in tandem with effective leadership, it can help produce a more orderly change process. Nor does this mean that leadership is never associated with order; to the contrary, in

tandem with effective management, an effective leadership process can help produce the changes necessary to bring a chaotic situation under control. But leadership by itself never keeps an operation on time and on budget year after year. And management by itself never creates significant useful change.

Taken together, all of these differences in function and form create the potential for conflict. Strong leadership, for example, can disrupt an orderly planning system and undermine the management hierarchy, while strong management can discourage the risk taking and enthusiasm needed for leadership. Examples of such conflicts have been reported many times over the years, usually between individuals who personify only one of the two sets of processes: 'pure managers' fighting it out with pure leaders.'" (Kotter (1990, p. 7)

We consider the conflict between leadership and management highlighted by Kotter to be important, potentially destructive if not handled properly, but critically useful when kept in appropriate balance. Creating this balance is not a trivial exercise. The tension created between pure management and pure leadership is useful because it is one source of locating and defining breakdowns. Management pulls for the predictable; leadership pulls for the vision. As we see later this defines the breakdown. In our model the two viewpoints must coexist without one overpowering the other; otherwise, the breakdown disappears and therefore loses its power. When the breakdown is resolved, both points of view are satisfied.

Nevertheless, we shall ignore the conflict between leadership and management in the remainder of this paper so as to focus on highlighting the critical, counter-intuitive and often unrecognized last two elements of effective leadership emphasized in our model.

III. CREATING A VISION

There is a significant amount of literature on creating visions and strategies for enterprises of various types. Virtually all of it applies here. However, in the domain of leadership, the creation of a vision for the future takes on additional properties. First, leadership is about creating a vision for a future that is not an extrapolation from the past. Leadership is not about applying known techniques, processes, and technology to create something that is therefore the next step in a predictable continuum or a logical progression. Successfully continuing from the past is a management function. Leadership is about creating a future that could not have been predicted.

There is a special case that, unfortunately, occurs with great frequency. Suppose that management has set a goal whose achievement is highly predictable given the organizations resources, knowledge, skills, budget, schedule, and so on. Further suppose that some unpredicted or unpredictable event occurs which alters the circumstances; and, as a result, the goal is no longer seen as achievable with the required degree of certainty. The pure management response to this situation would be to restore certainty by, for example, extending the schedule, adding resources, changing the goal, or killing the project altogether. The response of leadership would be to remain committed to the goal. In the words attributed more than 2,200 years ago to the Carthaginian general Hannibal when asked how he was going to get his army across the Alps into Italy: "We will either find a way or make one!"[9]

A. The Language of Commitment is the Language of Management and Leadership

Assertions are the language of management

It is helpful at this point to distinguish different types of commitment. Winograd and Flores (1987) distinguish four generic types of commitment: Assertion, Declaration, Request and Promise. The first two are pertinent for our purposes here. An "assertion," is a statement that propounds a point of view, theory, or idea that the listener or reader is asked to accept as true. The commitment associated with an assertion is that its author will provide evidence to back up what is being asserted and is willing to be accountable that the evidence will be sufficient to ensure that the listener will find that evidence valid for himself or herself. In the context of this paper, assertions about the future are of the utmost importance to management. A typical management assertion would be "Project X will be complete within budget by the end of this year." The evidence that could be provided is the detailed plan to accomplish the project — a plan the listener would accept as convincing.

Declarations are the language of leadership

The second type of commitment is a "declaration." A declaration creates a state change. The identity of the declarer and how his or her words are heard by listeners play an essential part in the effects of a declaration. For example, when the umpire in a baseball game calls a pitch a "strike" it is a strike – and not before he has declared it so. If the catcher calls it a strike, the statement is, at best, an assertion, and most likely is heard as an opinion (i.e. a report on one's internal state of mind). When the prosecutor in a criminal trial says the defendant is guilty, an assertion is being made. When the judge says the defendant is guilty, it is a declaration that creates a state change.

Perhaps the most famous declaration in modern times was made by President John F. Kennedy in May, 1961 during his address to a joint session of the U. S. Congress in which he declared that the United States would put a man on the moon by the end of the decade (Kennedy (1961)). The particular language that Kennedy used during his speech is less important than recognizing that his words created a state change – instantaneously creating a national conversation about putting a man on the moon. This conversation and the acts associated with it led to the creation of the Apollo Project, and the landing of a man on the moon on July 20, 1969.

A more commonplace example is appropriate. During a software development project led by one of the authors, a serious problem with a critical component was uncovered. Fixing this problem using standard processes would have caused a substantial delay to the entire project. While the managers of the project were wringing their collective hands, one of the engineers declared that he would fix the problem quickly enough so that the overall project could stay on schedule. In effect, he declared that if management left him alone he would do in 3 months what others thought would take six people six months to complete. Management's initial reaction was to hear the engineer's offer as an assertion. They asked "How do you propose to do 3 person-years' worth of work in 3 months by yourself?" The engineer had no real answer to the question other than to repeat the declaration. The project manager accepted his declaration (the only other alternative was accepting a substantial delay in completion of the project), and thereby bet on the engineer's creativity and ability to produce the results in 3 months. Fortunately for everyone, the engineer delivered the fully functioning component on time and with outstanding quality.

Note that the engineer did not say he would "try" to fix the problem in 6 months. That would not have been a declaration or even a commitment. The hallmark of commitment is that it creates

risk, and there is no risk created by any statement that one will "try" to do anything. "Try" is not part of the language of leadership.

In the domain of leadership, declarations create new possibilities but not certainty. As we implied above, leadership declarations are fraught with risk because they are in a domain beyond that which can be asserted. Declarations are the means of communicating the committed visions of leadership.

IV. ENROLLMENT

A. Personal Commitment

By authentically declaring a vision, a leader creates his or her personal commitment. Since most major accomplishments require the efforts of other people, success requires that enough people with the right sets of skills and resources be similarly committed to the realization of the vision. We call the process that leads to such commitment "enrollment," and it consists of two parts:

- Communicating the vision to others in a way that the vision is seen by each person as a compelling personal opportunity, and

- Inviting each person to choose freely to commit personally to the realization of the vision.

A leader must communicate the vision and his or her personal commitment to that vision in a way such that other people see the vision as a personal opportunity that promises to fulfill or contribute to one or more of their personal concerns. The more compelling the vision statement, the broader will be the impact and enrollment. President John F. Kennedy's declaration to the joint session of Congress on May 25, 1961 to have a man on the moon by the end of the decade is an example of a brilliantly stated vision that excited, engaged, and enrolled a substantial fraction of the U.S. population—enough, in fact, to begin the process that resulted in its realization.

"Finally, if we are to win the battle that is now going on around the world between freedom and tyranny, the dramatic achievements in space which occurred in recent weeks should have made clear to us all, as did the Sputnik in 1957, the impact of this adventure on the minds of men everywhere, who are attempting to make a determination of which road they should take. Since early in my term, our efforts in space have been under review. With the advice of the Vice President, who is Chairman of the National Space Council, we have examined where we are strong and where we are not, where we may succeed and where we may not. Now it is time to take longer strides—time for a great new American enterprise—time for this nation to take a clearly leading role in space achievement, which in many ways may hold the key to our future on earth.

I believe we possess all the resources and talents necessary. But the facts of the matter are that we have never made the national decisions or marshaled the national resources required for such leadership. We have never specified long-range goals on an urgent time schedule, or managed our resources and our time so as to ensure their fulfillment.

Recognizing the head start obtained by the Soviets with their large rocket engines, which gives them many months of leadtime, and recognizing the likelihood that they will exploit this lead for some time to come in still more impressive successes, we nevertheless are required to make new efforts on our own. For while we cannot guarantee that we shall one day be first, we can guarantee that any failure to make this effort will make us last. We take an additional risk by making it in full view of the world, but as shown by the

feat of astronaut Shepard, this very risk enhances our stature when we are successful. But this is not merely a race. Space is open to us now; and our eagerness to share its meaning is not governed by the efforts of others. We go into space because whatever mankind must undertake, free men must fully share.

I therefore ask the Congress, above and beyond the increases I have earlier requested for space activities, to provide the funds which are needed to meet the following national goals:

First, I believe that this nation should commit itself to achieving the goal, before this decade is out, of landing a man on the moon and returning him safely to the earth. No single space project in this period will be more impressive to mankind, or more important for the long-range exploration of space; and none will be so difficult or expensive to accomplish." Kennedy (1961)

An individual commits himself or herself by a declaration. Such declaration includes both the substance of the future state (vision) that is to be attained and the individual's personal commitment to the realization of that vision. The power of declaration is not widely understood. Just as in the case of Kennedy's declaration to put a man on the moon when no one at the time knew how to do it, the declarations of any person create risk and uncertainty. Such declarations are generall associated with uncomfortable

feelings on the part of most human beings.

In an almost magical way declarations create a future which shifts the world in very important ways. W.H. Murray (1951), of the Scottish Himalayan Expedition expresses the point very well, and we recommend that all readers who have not experienced the power of declaration re-read his following statement after they have experienced the power of declarations that are pursued with integrity:

"Until one is committed, there is hesitancy, the chance to draw back, always ineffectiveness. Concerning all acts of initiative and creation, there is one elementary truth the ignorance of which kills countless ideas and splendid plans: that the moment one definitely commits oneself, then providence moves too.

"All sorts of things occur to help one that would never otherwise have occurred. A whole stream of events issues from the decision, raising in ones favor all manner of unforeseen incidents, meetings and material assistance which no man could have dreamed would have come his way."

"I have learned a deep respect for one of Goethe's couplets: 'Whatever you can do, or dream you can, begin it! Boldness has genius, magic, and power in it."

B. Creating A Committed Team Or Organization

Commitment only occurs when it is possible to say yes or no

The second aspect of enrollment, the invitation to commit to the vision, requires free choice. Because commitment is a personal phenomenon, it is impossible to force another person to be committed. Authentic personal commitment is thus possible only in an environment in which an individual truly has a free choice; that is, a person can commit to yes only to the extent that he or she can choose to say no.

Groups or organizations can be committed to something by an individual who is authorized to make such commitments. But this does not necessarily mean that any other individuals in the organization are personally committed.

We define a team as a group of people that is working toward the realization of a common vision or set of outcomes. We use the term "outcome" to denote a result to be produced that is required to realize a vision. People may be committed to the vision, a specific sub-set of the outcomes required for that vision, or both.

Our interest here is in how leadership creates an effective team in an environment with large numbers of people. While other approaches can work with small groups, the general method for creating a team is to recruit or identify those with the skills and resources needed to realize the vision and have nearly all of them be personally committed to realizing the outcomes or vision. This is accomplished by inviting each relevant individual to make a personal commitment to the realization of the vision. In practice, a number of people will decline. The goal here is to create a process that will ensure (to as great a degree as feasible) that those who decline to commit to the vision are at least committed to the possibility that the vision will be realized. There will be two remaining groups of people; those who are indifferent to the success or failure of the vision and those who are committed to the outright failure of the vision. Attempting to eliminate or otherwise punish these people is a common mistake.

Naysayers are valuable

We recognize it is counterintuitive to say that we should not eliminate or punish people solely

because they do not voluntarily commit to the realization of the vision, or even if they are committed its failure. But keeping these people is often the lesser of two evils, and keeping them may well be critical to the ultimate success of the project. Moreover, even if everyone commits at the beginning of the project, it is likely that some will withdraw or modify their commitment in the face of the inevitable breakdowns that will occur. Obviously, at the extreme, welcoming participants who, in effect, are committed to sabotaging the project is a mistake, but we have found that, in practice, there are few instances of individuals taking this extreme position.

One objective of the enrollment process is to minimize the number of people who are indifferent to the success or failure of the vision, or are committed to its outright failure. Punishing or eliminating such individuals demonstrates that people did not actually have a free choice. Creating such an environment drives people to sacrifice their integrity (by saying they are committed when in fact they are not) in order to keep their jobs or avoid other negative consequences. And this lack of integrity will affect the integrity of the entire effort and thereby reduce performance.

In fact it is useful to have some people in each of these two groups (uncommitted or committed to the failure of the vision) on board the team for two reasons:

- First, their continued presence means there really was free choice. And this becomes highly productive in a situation where open and accurate

communications are critical to success of the vision. In effect, punishing such people results in creating systems in which we inadvertently "pay people to lie". See Jensen (2001, (2003)).

- Second, overt naysayers are useful because they will help identify problems or hurdles that must be overcome. We deal with these issues more extensively below where we discuss breakdowns, recommitment, and breakthroughs.

In practice we have not seen more than a small fraction of the members of the team or organization who fall into one of these categories. The next section discusses procedures and techniques for ensuring that this is the case in any particular effort.

Extending and deepening the commitment to the vision

A powerful technique for enrolling each member of the team or organization in the vision and for increasing the probability of success is to have the members of the team create the details of the outcomes they are committing to as well as the conditions that they will operate under. For instance, a product engineering team was asked by management to commit to increasing their productivity by a factor of two. Needless to say, most of the potential team members were not inspired by this vision. When the team met, they restated the vision as: "Our product will be the leading-edge offering in its field within two years." Energized by this possibility the engineers enthusiastically committed to it. It turned out that the productivity improvement required to achieve this restated vision was greater than a factor of two. See Scherr (2005)

When a team creates their own version of the vision or their version of the conditions they believe are necessary for their commitment and realization of the vision, the leadership must be willing to accept these conditions or negotiate with the team or teams to reach a mutually acceptable statement of the vision and the conditions underlying the resources, timing, and deliverables. When this process is successful more people will be committed to the vision and the likelihood of success will increase. In effect, these discussions lead to a condition in which leadership and the team are committed to the same thing. To do otherwise separates the leadership from the rest of the team and can ultimately sabotage the project. Like maintaining two sets of accounting books, this situation lacks integrity, and therefore workability and performance will be impaired.

Having the team address the conditions they believe are necessary for realization of the vision can eliminate concerns that people are signing up for a "death march" where they will work 100+ hours a week and take no vacations, etc. Some examples of such conditions:

- "We commit to realizing this vision by the required date, to having every team member take his annual vacation, and to have no team member work more than 10% overtime."

- "We commit to realizing this vision by the required date and request that management provide us with a conference room dedicated to this project."

- "We commit to realizing this vision by the required date, and that Harry will be able to take two weeks off when the new baby arrives."

When the leadership and the teams can mutually commit to such conditions (and this means the leadership, who may not be interested in these additional conditions or restrictions, must commit to their fulfillment) the likelihood of success increases substantially.

A word of caution is in order at this point. We assert that a leader cannot fake or pretend to be committed to something and expect to be successful in enrolling others to his or her vision. Enrollment, as we have defined it, will not occur if the leader's commitment is feigned. In this situation, enrollment degenerates into manipulation, that is, the attempt to control or influence others through clever, insidious, dishonest, or unscrupulous means. Manipulation, no matter how skillfully done, will generally be detected sooner or later by the participants with undesirable results. When people sense that they are being manipulated they are less likely to commit themselves and their commitment will generally be weak or conditional, and much less likely to lead to breakthrough performance.

V. BREAKDOWNS

No vision of the future that is beyond what will predictably occur can ever be accomplished without the occurrence of breakdowns. A breakdown is a situation where the people committed to a vision are confronted with the fact that on their current trajectory they will fail. This can materialize in many ways, for example, by realizing the present circumstances (resources, know-how, etc.) are inconsistent with the on-time achievement of the committed outcome or vision. Contrary to what people generally believe, breakdowns are the driving force behind innovation and the breakthroughs that we emphasize in this paper. A common, but less rigorous way of saying this is: "necessity is the mother of invention".

Recognizing that breakdowns are the force that drives innovation and breakthroughs leads to the counterintuitive proposition that even though people generally dislike breakdowns they must be sought out and welcomed. We deal first with the structure of breakdowns before addressing their creation and management.

There are two essential elements to every breakdown: 1) the committed vision or outcomes and 2) the recognition and acknowledgment that, given the current course and speed, the committed vision or outcomes will not be realized. Without both of these elements there will be no breakdown.

First, if there is no commitment there will never be a breakdown; because in the absence of any commitment, whatever happens is acceptable. And, to the extent that the commitment is unclear or vague, the existence of a breakdown will lack urgency, and perhaps not even be visible to some or all of the people involved.

Second, to the extent that we can accurately predict the outcome of the present circumstances, breakdowns will be identified earlier, and thereby increase the likelihood that they will be resolved. Alternatively, to the extent that we cannot see that the predictable outcome of the present circumstances is failure, no breakdown will be noticed, and when it is noticed it will likely be too late to overcome the obstacles[10].

Thus, three of the four critical elements of leadership are a powerful vision, the successful enrollment of others into making personal commitments (declarations) to fulfill the vision, and the creation of a rigorous management system that will identify the inevitable current and future failures, thereby turning them into breakdowns. As we said earlier the fact that breakdowns must be sought out and embraced is often counterintuitive as well as counter-cultural. Hence, the existence of breakdowns is often actively suppressed in organizations with the costly result that important breakthroughs are never realized.

Great leadership requires effective systems to create and publicize (not suppress, hide and cover up) breakdowns and thereby contribute to resolving them successfully. However, once the two elements (personal commitment and acknowledgment of impending failure) are firmly in place, the existence of a breakdown is typically resisted by those who are involved. People upset at the prospect of failure often engage in nonproductive behavior (e.g. looking for excuses, scapegoats, and questioning the commitment). When a situation appears to an observer as if it should be a breakdown but is not being experienced as such by the people involved, one of the two essential elements must be missing. That is, either the people involved are not committed to the outcome or vision, or they have not recognized that current circumstances are inconsistent with the on-time achievement of the committed outcome or vision.

Obviously, and as we indicated above, the sooner a breakdown is recognized, acknowledged, and broadly communicated, the more options there are to resolve it and the more likely it will be resolved successfully. For example, it will do little good to realize that we are going to fail to deliver on our commitments the day before the deadline of a yearlong project.

Handling breakdowns by openly welcoming them is counter to most organizational cultures we have worked with. Thus one of the important aspects of leadership is to shift the culture of the organization from one in which breakdowns are seen as "problems" to be resisted to one in which breakdowns are welcomed as "opportunities for breakthroughs". Resisting a breakdown does nothing to resolve the inevitable failure associated with it. Indeed it is highly likely to cause it to persist (a good example of the ontological law "What you resist, persists"). We observed a major cultural shift in one organization we worked with when the

resistance of a team disappeared. In the middle of a tense discussion regarding a breakdown that the team was refusing to recognize, one of the major participants suddenly proclaimed: "I get it. We're having a breakdown. Oh goody, that's an opportunity for a breakthrough." That shift in the way the situation occurred for that person shifted the way the breakdown occurred for the team as a whole and brought about dramatic results. In a short period of time the team resolved the major issue that had existed for years, and the culture of resistance in that part of the organizations shifted to one where breakdowns were welcomed as opportunity for breakthroughs.

In the domain of breakdowns, leadership must:

- Create and implement management systems that predict breakdowns as early as possible so that the maximum amount of time is available to resolve them.

- Create systems and cultures where breakdowns are acknowledged, welcomed, and broadly communicated so that the maximum number of people can focus on resolving them.

One of the more common failures in handling breakdowns is not recognizing them until it is too late to do anything about them. Management systems must be put into place to recognize breakdowns as early as possible. For example, many years ago, a company in Japan identified an urgent requirement for a new semiconductor manufacturing plant. The executive in charge of the project committed to the board of directors that the plant would be in operation within 12 months. Such construction projects would normally take three years or more. Therefore, a breakdown occurred immediately. When the executive's staff created a detailed plan to meet the 12-month deadline, it became apparent that the foundation for the building would have to be

poured within the next three weeks. (We discuss below the breakthrough on this issue that allowed the on-time completion of the plant.) There were other less immediate breakdowns as well, many of which were revealed by the detailed plan that turned one large breakdown (a 3-year effort to be completed in one year) into a series of smaller, more immediate and more tractable breakdowns.

The fundamental principle here is that there should always be a view of what is predictable so that the gap between what is predictable and what is committed is understood as clearly as possible. In this way, specific breakdowns can be identified and dealt with. Having a detailed plan (based on best current knowledge) for achieving what is committed is important because it will identify where breakthroughs

are required. Such detailed plans are in the domain of management, but are essential in the exercise and design of leadership systems.

Another important way of identifying breakdowns is to examine what is not broken with an eye toward improving it. The classical quality circles take this approach. We have seen by bringing in a fresh perspective to look at what is "business-as-usual" that breakdowns can be seen that had been heretofore invisible. One of the authors was working with a group that provided customer support for a web site that allowed users to add material to a publicly accessible database. The purpose of the meeting was to find ways to ease the workload of the group and provide better service to customers. The focus was on finding new and more efficient ways to process the

workload. In response to questions about why the work was there at all, the group discovered that a major part of each person's workload was spent in manually processing submissions that were not directly and fully accepted by the software. Apparently, the software engineers and early managers had concluded that completely automating the submission process was too expensive, and everyone involved had left it at that. The cost of automating the process was trivial compared to the wasted time of the customer support group and the annoyance caused to customers because of delays in the submission process. But the people operating the system and processing the submissions simply took the current design of the system as given, and this made the opportunity for improvement invisible. Business-as-usual can make huge problems invisible. Once the breakdown was declared, it took only a few minutes to suggest changes in the system that were implemented in days and eliminated the problems.

Acknowledging and communicating breakdowns does not come naturally to most organizations even though the benefits far outweigh the costs. First of all, until a breakdown is acknowledged, it will not be attended to. If it is not communicated, no more than the few people who know about it can apply themselves to it. As an illustration, there is a story from the Apollo Project that makes the point well. It seems there was a contamination problem with the rocket fuel, and the engineers and chemists were unable to locate the source. Finally, after the contamination problem became common knowledge, the source of the contamination was found by one of the maintenance people. The janitor would undoubtedly not have been looking for the contamination source unless he knew about the breakdown and, at some level, experienced it as a personal breakdown because of his commitment to the success of the project[11].

In short, breakdowns are a call to action for the people experiencing them. The following section discusses possible actions that can be taken to resolve breakdowns.

How Breakdowns Can Lead To Breakthroughs

The Oxford Dictionary[12] defines a breakthrough as "a sudden, dramatic, and important discovery or development; a significant and dramatic overcoming of a perceived obstacle, allowing the completion of a process". This is consistent with our use of the word. But we also include as a breakthrough some previously unknown or unseen path, process, or technology (even those that are not dramatic or important developments) that, when adopted, resolve the breakdown. Unfortunately, there are other possible reactions to and outcomes from a breakdown.

Typically, the first reaction to the prospect of failure (that is, a breakdown) is an emotional upset and the resistance that almost always brings. People inherently dislike breakdowns and the failures they portend; they're apt to point fingers, assign blame, ask "how did this happen?" or "what's wrong with X?" where X = Harry, Sue, the company, the customer, and virtually anything else that comes to mind. At this point, the commitment that lies at the source of the breakdown is usually called into question. If the commitment is abandoned or suitably modified, the breakdown is resolved. Slipping the schedule, adding budget or manpower, accepting higher production costs or lower quality, setting a higher price, killing product features are all examples of how many breakdowns get resolved in life. All these actions are intended to create "predictable success" from the intolerable situation of "predictable failure". And, in a sense, they represent good management actions. Unfortunately, the original vision is sacrificed. Moreover, this is probably not the last time, because in any major project there inevitably will be many breakdowns.

Thus, the result of substituting "management" for "leadership" (as we have defined leadership), is chronic slippage: where slippage includes slipped deadlines, increased costs, reduced quality, and in general a substantial shortfall from the original commitment[13]. There is, however, another alternative.

The first choice confronting the breakdown participants is whether or not to remain committed to the vision. At this point it is critical to manage the breakdown so as to avoid the all-too-common slippery slope (giving up parts or all of the vision) that restricts us only to outcomes that are predictable. Moreover, if breakdowns are handled this way the organization becomes trained to commit only to outcomes that are predictable. In this equilibrium, management drives out leadership. Of course, there are always situations in the lives of organizations where the optimal action is to return the situation to predictability by changing the commitments. However, if the organization is to remain committed to the vision in the face of the adverse circumstances, leadership must take several actions to maximize the probability of success.

First, the leadership must choose whether to remain committed to the vision or to give it up or modify it. Recall that we define a leader as a person with a commitment to an outcome that is extraordinary given the circumstances. Another (and less comfortable) way to say this is: a leader is someone who has a commitment to ongoingly create, confront, and manage breakdowns.

One of the executives we worked with returned from a two-week vacation to find, much to his surprise, that his second-in-command had added three months to the delivery date of a product that had been due to ship in three months. Without really understanding what had happened, the executive promised his boss that he would fix

whatever the problem was and ship the product on time. His commitment was based on the conviction that nothing could have happened in the two weeks he was gone that couldn't be fixed somehow. As it turned out, the slippage was based on the prediction that given the available resources the final test of the product would take an additional three months Standing in the commitment to restore the original schedule, the executive looked at the testing protocol with some of his technical experts. They redesigned the protocol to use fewer resources and, at the same time, perform a more effective test. The product shipped on time and with good quality.

Secondly, and somewhat counterintuitively, all participants in a breakdown must be given the formal opportunity to choose to recommit to the outcome or vision. This process is valuable for three reasons: (1) It offers an opportunity to adapt the commitment to the present circumstances – that is, to re-evaluate all of the outcomes that have been committed to and decide whether they are still necessary to realizing the vision. (2) It can reveal that different people are committed to different things. Clarifying and resolving these conflicting commitments can result in substantial breakthroughs. (3) It shifts people's focus from actively resisting the breakdown (e.g., looking at what or whom to blame for the breakdown, what's wrong with him, it, you, me, or X) to looking at solving the breakdown.

In our work on breakdowns, we have often seen solutions appear as soon as people re-create their commitment – often within minutes or hours of the recommitment. Renewing the commitment shifts people's point-of-view and often allows them to see opportunities and solutions that were not previously visible. Re-evaluating committed outcomes is also useful because the sequence and content of these outcomes may not be optimal for realizing the vision in the light of current circumstances.

Returning to the example of the 12-month project to put a new semiconductor plant on-line, the original plan called for building a construction road to the site from a nearby highway prior to pouring the building's foundation. With only three weeks allowed for pouring the foundation, building the road beforehand was out of the question (just getting permits for the new road would have taken months). The team turned their attention to how to pour the foundation without a road to the site. The resolution of the breakdown was to pump the cement from the public highway to the site over a distance of several hundred meters. This was an unusual solution because cement pumps are typically used in urban high-rise construction projects, not for ground-level foundation slabs[14].

The third step, as we explained in the previous section, is to broadly communicate the existence of the breakdown. We have found that when breakdowns are broadly communicated, significant solutions often come from unexpected quarters. If everyone is committed to the same overall vision, then a breakdown in another area that will prevent the overall vision from being realized is a breakdown for all. Marketing may come to the aid of Sales, Sales may come to the aid of Manufacturing, Manufacturing may solve a problem for Engineering, and so on. It is the role of leadership to ensure that every resource is potentially available to resolve breakdowns.

During a software project at IBM, a breakdown occurred because a certain function key, when pressed, didn't always produce the intended result. There were certain timing conditions that, whenever they occurred, would make producing the intended result extremely difficult, requiring a huge software investment. When this breakdown was made known to one of the hardware engineers, he asked what was the probability of these timing conditions occurring. The answer was estimated to be on the order of 1 in hundreds

of thousands of uses. The engineer then said that the intermittent failure rate of the key was about that same magnitude, and that the software could use the same error recovery procedure that the hardware used: have the user hit the key again. The probability that the key would malfunction twice in a row was virtually zero, and even if it did, the user would probably press the key repeatedly until something happened. Thus, the breakdown was resolved at zero cost.

Communicating breakdowns upward in the organizational hierarchy also has a powerful effect. First, it significantly reduces the tension caused by the breakdown. Keeping the breakdown secret from upper management creates significant stress – particularly over the possibility that they will find out about the breakdown through other sources. Second, given upper management's commitment to the same vision and outcomes, their considerable resources can be brought to bear on the breakdown. Moreover, keeping the breakdown secret from the upper level managers that are responsible for the overall success of the vision sacrifices the integrity of the team or group and thereby further reduces the productivity and performance of the group[15].

The fourth and most difficult step is to remain committed in the face of circumstances that are inconsistent with the realization of the commitment. Not everyone will remain committed in these circumstances, particularly if the leadership falters. We have seen leadership back off from their commitment to realizing a vision with devastating results. When this happens, it is an invitation to everyone else to back off. Sometimes upper management has been covertly willing to accept less than what they have been publicly committed to. We call this "keeping two sets of books." These "secret" commitments to lesser results (that often arise out of a system of "stretch targets" where there is no authentic commitment to the stretch target by upper level bosses) usually come to the fore the first time a breakdown

takes more than a few days to resolve. Worse than that, the suspicion that management is willing to back off can encourage the people who are truly committed to the larger vision to keep breakdowns from being broadly communicated. And this again reduces the integrity of part or all of the system with the inevitable negative effect on performance.

There is a fifth step that is often omitted, particularly if the breakdown is resolved with a breakthrough — to get to the source or root cause of the breakdown and correct it so that the breakdown never occurs again. This is an idea borrowed directly from the quality movement, and it works[16]. This step is not about fixing blame for the breakdown. Rather, it is about getting at the weaknesses in the process or tools that were used that allowed the breakdown to occur in the first place. Even if the breakdown is not resolved successfully, doing this step might find a way to prevent it the next time or at least have it be detected earlier.

Sometimes it may be necessary to recognize that there is no breakthrough possible. This is a judgment that leadership must make. At this point there are many possible choices that range from abandoning the vision to committing to a suitably modified vision. This decision to back off must not be taken lightly because it will, as mentioned above, weaken the ability of leadership to lead in the future. Nor should a decision to back off be taken quickly. The team should be allowed to work the breakdown for enough time to ensure that no solution of any type is possible. One of the alternatives that should be investigated before giving up the vision is the possibility of cleaning up the mess caused by the current breakdown in other areas of the enterprise – using, for example, engineering personnel to solve a customer service problem, using marketing to sell customers on a change in engineering specifications (a/k/a "if you can't fix

it, feature it"), or solving a manufacturing problem by changing the engineering specifications. Only after all alternatives like these are exhausted, should the vision be questioned and revised to take an intractable breakdown into account.

The authors have seen endeavors cancelled because of breakdowns that upper management thought could not be solved while at the same time the people at the working level were convinced that they would solve the problem. This situation should be avoided either by giving additional time to search for solutions or, at least, having all levels communicate openly and honestly about their positions regarding the breakdown.

Whenever a vision is abandoned there is fallout — the plans of other organizations may be impacted, revenue or budgets may have to be adjusted, organizational downsizing may be called for, and so on. Dealing with this fallout is another leadership responsibility. The mess that was made by reneging on the original commitment must be cleaned up. To do otherwise compromises the integrity of the leadership and their organizations and will reduce future performance.

VI. KEEPING IT GOING

There are a number of issues that arise when the principles described in this paper are utilized on an ongoing basis. The most common dilemma has to do with confronting a situation where the results produced are far beyond what could have been predicted, but still short of the committed vision. We call this the "More-than-expected but less-thanpromised" issue. Suppose that the committed vision is to achieve a level of performance that is 3 times what could reasonably be predicted in a "business-as-usual" environment. Further suppose that the results achieved were "only"

twice the business-as-usual level. What should the leadership response be? If the organization is simply punished for falling short of its commitment, the people in it will be more conservative the next time a commitment is called for. Ultimately, this can lead to a culture that rewards participants for lying. In more polite language this response to such "failures" leads to the commonly observed principle of "under-promise and over-deliver." And we believe the performance reductions that result from this are large, but generally unnoticed.

On the other hand, if the organization is simply rewarded for doubling the usual performance, the people in the organization will see that their commitments are not taken seriously, and that their bosses were actually committed to results that were less than the formal public commitments.

At this time we do not have as rigorous an answer to this issue as we would like. The most effective response that we can offer to this complex situation is a combination of actions. First of all, the organization should be rewarded for its extraordinary performance. Secondly, the organization should be praised and perhaps rewarded for taking the risks involved in making the extraordinary commitment. But finally, the fact that the organization did not fully deliver on its commitment should not be ignored. There should be negative consequences for missing the commitment. Obviously, a careful balance must be maintained. Otherwise, our policies could easily create a culture of low integrity with the concomitant reductions in performance that will generate. Two phenomena would be present: 1) subordinates would lie in this game in which they under-promise and over-deliver, or 2) managers would be lying when they commit to commitments (that is, accept commitments) that are beyond what they themselves are committed to (or in other words, what they would be satisfied with). This latter condition is what is commonly called

"stretch goals" — non-commitments masquerading as commitments. Either of these phenomena will result in substantial reductions in performance.

In "Paying People to Lie: The Truth About the Budgeting Process," Jensen (2003) discusses the details of how this equilibrium occurs in most organizations. Restoring integrity to the organization cannot be accomplished without fundamental changes in the annual budgeting and compensation system that reward people for meeting or beating their budgeted targets. In particular he argues that pay-for-performance reward and budgeting system must be free of all kinks and non-linearities[17].

Another issue has to do with what looks like burnout. In other words, organizations that handle breakdown after breakdown to produce breakthrough after breakthrough ultimately reach a point where extraordinarily high levels of performance become business-as-usual. At this point further breakthroughs are harder to come by, and if commitments continue to ratchet up, irresolvable breakdowns become more frequent making the organization look like it is suffering from burnout.

In many of the organizations we have worked with, the culture of under-promise, over-deliver has kept the organization's performance substantially below its real potential. Getting spectacular performance gains from such an organization is relatively easy. The breakthroughs come easily as the latent performance potential is tapped. However, once this potential is mined, breakthroughs are harder to achieve. At this point, the risk of failure is higher, and the leadership principles outlined in this article become critical.

In effect once the low-hanging fruit caused by the prior low-integrity, low-performance equilibrium has been harvested, the organization's leadership

is now challenged to create and realize visions that no one knows how to accomplish based on current knowledge. In other words, now the real risk taking and real leadership begin.

The Critical Role of Integrity

Underlying virtually every aspect of our model of leadership is the notion that authentic commitment drives everything. Enrollment is about communicating and soliciting commitment, breakdowns occur only when there is commitment; breakthroughs come from maintaining commitment in the face of breakdowns, and so on. Obviously, these commitments are established and communicated by people giving their word to produce or realize a vision or produce particular results that are

required for the realization of the vision. Given the risk associated with bringing to fruition an unprecedented vision, being able to keep one's word is never a sure thing in the domain of leadership. Throughout this paper we have said that leadership requires both personal and organizational integrity on the part of the leaders and the individual and organizational participants in the effort. The dilemma for the leader is how to maintain integrity in the face of making commitments that are risky and may not be fulfilled.

The resolution to this apparent contradiction is explained in a recent article by Erhard, Jensen, and Zaffron (2007) in which integrity is defined as: Honoring one's word. "Oversimplifying somewhat, honoring your word as [they] define

it means you either keep your word (do what you said you would do and by the time you said you would do it), or as soon as you know that you will not, you say that you will not to those who were counting on your word and clean up any mess caused by not keeping your word."

When an individual or an organizational unit commits to the realization of a vision it has given its word. And, in the context of that vision, when an individual or organizational unit commits to produce one or more elements necessary to the realization of that vision it is critical that the individual or unit honor that word. Widespread out-ofintegrity behavior, ie., not honoring one's word means that the productivity and likely realization of the vision will fall dramatically.

Allan Scherr provides a discussion in Appendix A of IBM's success in creating and realizing its vision of its dramatically new System 360 hardware and operating system in the 1960s and its MVS operating system in the 1970s. He attributes much of that success to the culture in IBM at that time that giving your word to produce results was very important as was honoring that word. He also discusses the cultural change that occurred in IBM in the period leading up to its efforts to create its first personal computer in the early 1980s. By that time the culture had changed so that people and units no longer put high priority on honoring their word to other operating units. As a result, many product groups including the group developing the PC in Boca Raton, FL refused to work with other IBM units. Even though IBM had operating system software and chip design and fabrication facilities in-house, the PC group chose to outsource these two critical components to a fledgling Microsoft and Intel. As a result IBM gave up value that today amounts to almost three times its current total market value of $123 billion.

VII. SUMMARY AND CONCLUSIONS

At the beginning of this paper, we discussed the different roles and processes that characterize management and leadership. It should be clear now that both skills are required for leadership to produce breakthroughs. Leadership without management will generally produce pipedreams and failures. Pure management without leadership will never produce breakthroughs. Consequently, a true leader must have skills available in both of these domains and be able to integrate both. From our point of view, here are the aspects of effective leadership:

1. The ability and willingness to personally commit to a vision of the future that is well beyond what current know-how and resources provide a clear path to achieving.

2. The ability to communicate this vision in such a way that the mass of people needed to realize the vision voluntarily commit themselves to produce the necessary outcomes.

3. The creation of an organizational culture and environment where risktaking and honest communication is valued, and breakdowns are seen as positive evidence of both and welcomed as opportunities for breakthroughs.
4. The integrity and courage to remain visibly and publicly committed to the vision in the face of the breakdowns, and to "walk the talk".

5. The integrity to communicate completely and honestly about the true nature of one's commitment so that there is never a doubt about what it is.

6. The courage and patience to stand with a team that is grappling with breakdowns.

7. Finally we quote (Rost 1993, p. 102) who says "The definition of leadership is this: Leadership

is a relationship among leaders and followers who intend real changes that reflect their mutual purposes." We agree, and we have provided a framework in this article that gives leaders and followers access to accomplishing these changes.

At the beginning of this paper, we stated that we were not going to address leadership from the point of view of the qualities and characteristics of exemplary leaders. This is not to say that these qualities and characteristics are not important – they certainly are. The underlying principle in the leadership model described in this paper is the authentic commitment of the leader. Based upon our work with leaders in a variety of organizational settings, we believe that many of the qualities and attributes of leaders spring from their commitment. A leader demonstrating his or her strong commitment becomes an attractor of supporters. People naturally and perhaps sub-consciously are drawn to such a person. While this phenomenon is often labelled with mystical terms like "charisma," we conjecture that one essential source of charisma is the unequivocal commitment of the leader to bold visions and the courage to stand for them in the face of seemingly insurmountable hurdles.

A CASE STUDY ON LEADERSHIP AND INTEGRITY

I was a manager and then executive in IBM software product development from the late '60's through the early '90's. The change in IBM's organizational culture over that period was dramatic.

During the '60's, IBM embarked on a international, multi-product development effort that resulted in the System/360 – a product line with several new software operating systems and at least 8 different hardware systems along with a new line of peripherals. The development of these products spanned the globe and took place in more than 30 groups in approximately 15 different locations from Europe to North America to Japan. There were countless interdependencies among these groups and, as might be expected, rivalries and conflicting priorities among them. But a few, relatively small, central groups in upstate New York were successful in managing the interfaces and interdependencies between the many components of the various hardware and software systems, the schedules and the budgets. Bob O. Evans was the overall executive in charge of development in those days. He was a man of impeccable integrity – his word was his bond, and he insisted on the same kind of behavior throughout his organizations. Failing to give your word to provide a necessary component on schedule was unacceptable. Not honoring a commitment was inexcusable.

The System 360 project was sometimes referred to as a "bet-your-company" effort and its success set the growth path for IBM for the next 25 years.

A few years later, in the early '70's, when Evans was the president of the product development division, I managed the creation of the first version of the MVS System which was, up to that point, the largest single software project IBM had ever attempted. Twenty different groups in 12 locations were involved—a total of nearly 3,000 people at its peak. Each of the groups reported to geographic executives that often had other conflicting priorities – their own pet projects, non-software products that they were also responsible for, budget and headcount constraints, and so on. Even so, it all worked.

When we had to add a critical feature in the midst of the project, we recruited what became the 20th group in the 12th location to do the work. We never thought it would be a problem, and it wasn't. Despite numerous breakdowns, very few people even tried to renege on their commitments (and no one ever succeeded), and the project was successful. Today MVS remains IBM's primary mainframe operating system.

Ten years later, after Evans had been moved out of line management to direct the corporate technical staff, things had changed. I was on the management team of a project that spanned eight groups in six locations, all of whom reported to the same executive. The project lurched and finally sputtered out of existence because virtually every breakdown was resolved by backing off from the commitments, that is, people not honoring their word. This experience was repeated several times on other projects. Around this time, most IBM product development people concluded that creating projects that spanned multiple locations and business interests was not feasible within IBM. The consequences of this shift were enormous.

When IBM's first personal computer was being developed in the early '80's in Boca Raton, FL, the management of the project refused to work with or depend on other IBM groups because they perceived them as undependable and self-serving. The term "bureaucracy" was often used; and it referred to the fact that if a group no longer wanted to do something they had committed to, they could throw up a myriad of procedural barriers to anyone trying to get them to honor their word. As a result, even though superior technologies were available within IBM, those technologies were spurned in favor of using outside suppliers.

Specifically, IBM Research had already developed a superior software operating system for a microprocessor, and the IBM Components Division had superior chip design and manufacturing capabilities to provide microprocessor chips. Because of the lack of trust inside of IBM and the fact that IBM management did not see the personal computer or software as important future businesses, the PC project was allowed to contract outside the company for operating system and chip solutions for the new personal computer[18].

The rest, as they say, is history – those outside suppliers are today's household names: Microsoft and Intel, and today the market capitalization of these two companies totals $404 billion, more than 2.7 times the current $149 billion of IBM[19]. Furthermore, IBM is no longer in the personal computer business having sold it to a Chinese company. Thus, this failure of leadership, integrity and therefore trust within the company cost IBM the equivalent of almost 3 IBM's of today.

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[7] By integrity we mean integrity as it is defined in Erhard, Jensen and Zaffron, 2007, "Integrity: A Positive Model that Incorporates the Normative Phenomena of Morality, Ethics and Legality", Harvard Negotiations, Organizations and Markets (NOM) Working Paper No. 06-11; and Barbados Group Working Paper No. 03-06 August (available from the Social Science Research Network eLibrary at: http://ssrn.com/Abstract=920625): Integrity is honoring one's word, and that means either keeping one's word or acknowledging that one will not be keeping one's word and cleaning up any mess that causes for those who were counting on that word being kept.

[8] In (Kotter's 1990, p. 5) words the actions associated with these concerns include: [1] "Developing a vision for the future ... along with strategies for producing the changes needed to achieve that vision. … [2] Communicating the direction to those whose cooperation may be needed so as to create coalitions that understand the vision and that are committed to its achievement. … [3] Keeping people moving in the right direction despite ... barriers to change by appealing to basic, often untapped human needs, values and emotions."

[9] QuoteWorld.org accessed Sun, Jul 16, 2006, http://quoteworld.org/quotes/6231

[10] Most people have directly experienced the phenomenon called "beginner's luck." The usual explanation is that novices are willing to commit to produce results that more experienced people would back away from. But novices have a handicap—they are usually unaware of breakdowns because of their inability to predict the probable outcome of their selected course of action. Yes, occasionally beginners produce spectacular results because they made the attempt that more experienced people would have declined. However, we have seen cases where beginners have failed miserably because they did not see the abyss coming until it was too late to avoid it.

[11] The authors have been unable to verify that this incident actually occurred, but the story makes the point so well that we use it even if it turns out to be apocryphal.

[12] Oxford American Dictionaries, Dictionary and Thesaurus, Version 1.0.1

[13] The press headlines over the year or two prior to the release of Microsoft's new Vista operating system documenting the continued delays in the promised delivery dates and reduced functionality of Vista are an excellent example of the consequences of a "management" response to breakdowns.

[14] We are indebted to Ron Steiger, who discovered this example while conducting an IBM study on manufacturing plant construction projects.

[15] For a detailed discussion of the effect of the lack of integrity on the performance of an individual, team or organization, see Erhard, Jensen and Zaffron, "Integrity: A Positive Model that Incorporates the Normative Phenomena of Morality, Ethics and Legality"

[16] See iSix Sigma LLC, "Determine The Root Cause: 5 Whys", http://software.isixsigma.com/library/content/c020610a.asp)

[17] See also Jensen, 2001, "Corporate Budgeting Is Broken: Let's Fix It", Harvard Business Review, V. 79, November: pp. 94-101 (available from the Social Science Research Network eLibrary at: http://papers.ssrn.com/Abstract=321520)

[18] While it is certainly the case that the financial deals that IBM made with Microsoft and Intel turned out to be huge giveaways, these deals would not have happened had IBM stayed with inside sources. In fact, the PC project was the first time in the author's experience that IBM had ever gone outside for a major hardware system component or a software operating system.

[19] As of August 22, 2007.

DEBATE

Audience question

So, in terms of an empirical example, would be Kyoto, which is an attempt to identify where we are in terms of the environment, we're either in a bad situation or maybe a very bad situation, there's some agreement on where we need to go. So what's the difference? Is the difference that there's more than one leader implicated in getting us there.

Michael Jensen

Well, for a long time, there wasn't a breakdown with a whole lot of people in the world, because they didn't think there was this gap. That seems to be closing. I mean, not the gap, but the realisation that there is a gap. That where we are right now isn't a very good place, and we've seen all the conflict that's gone on in trying to get people to recognise and really figure out –there's a serious scientific issue here as well– where we are. So that's absolutely critical. And by the way, it's not only critical when it comes to Kyoto, but it's critical in any major organisational changeup.

Relatively early in my career at Harvard… You probably don't remember this, but there was a period of time in which Harvard was falling in the rankings, the so-called rankings. And we announced, of course, that the rankings were meaningless. And I remember –I was an outsider– so there were 180 faculty members. I stood up in one of the faculty meetings and I said, "Hey, guys and gals, in my opinion, I love this place, even though I've been here a short time. But the Harvard Business School is the General Motors of education, and we're going to fail." That cost me a lot. It cost me a lot. Some of my young people didn't get appointed, there were years to pay for that.

But it was true. We were fat, dumb and happy. And when we enjoyed being at the top of the polls, and when we weren't at the top of the polls, we said the polls were wrong. So another version of what was going on at Harvard.

So seeing that gap, or creating that gap –let's click to the next one– is incredibly important. Now, the context… In my early days at Harvard I used to hear these old farts saying, "The context is decisive," and I thought that was pure junk. But now that I'm 67 years old and I've learned a thing or two, I have to say they were right. The context, it's close to being decisive.

So what do I mean and how does that apply here? When the breakdown occurs as a threat rather than a challenge to be overcome. When it occurs as a problem rather than a challenge, the reaction of people is to resist it, to hide it, deny it. Same kind of thing you see going on –we did, a lot of that with the global warming kind of stuff. And in that context, I guarantee you this ontological law that, that which is resisted will persist. And the only way to disappear it is to accept it, and then you can move on.

So I'll tell you this cute story that happened with SSRN. We had a major client, who will remain unknown, and we were failing, in my judgment, to deliver the right quality service. So one day I got Greg Gordon –and I'll never forget it, I was in New Orleans I was going to give a speech– and we got a conference call scheduled at my insistence with a group of our staff to talk about this, and Greg was very –he's the CEO– was very concerned because I was upset that I might offend somebody. And it was almost like he wanted to hide it or not admit it… And by the way he's a super guy. And so we got on this call and for –I don't know– half an hour, forty-five-minutes, we're having this wrenching discussion and nothing was happening except resistance.

And finally… By the way, Alan had met with some of the people in our organisation and taken them through the breakthrough technology; I'll tell you a couple of other stories before we're done. And so, there was a woman who actually worked for the… didn't work directly for us but worked for the software development organisation that we outsourced all that material to: ITX. And at some point in the conversation, Francine said, "Oh," she said, "I get it! We're having a breakdown." And then she said, "Oh, goody. That's an opportunity for a breakthrough." I could have kissed her, except she was 800 miles away. That changed the context, and it's what is… –I'm trying to get it out on the slide– She quit seeing it as a problem to be resisted, denied, blamed on somebody else, you know, "It was the client, da da-da da-da…" and, by the way, they were a contributor to this. And in

that instant, from her enthusiasm and the way she said it, everything changed on that call.

And now this set of attempts to get the problem solved, and there was more than one, didn't actually work over the next couple of months because we didn't yet have the people from the client involved. So there was one more telephone call in which I had just come back from… –I was literally at a meeting of the Barbados Group, and we were talking about material that was relevant to what I'm now going to say– and I got to fussing about this problem which still wasn't resolved. And it was really an important problem. And so I called Greg, the CEO, and I said, "How are we doing on this problem?" And as I knew, and he knew, we weren't. So I said, "We really have to… We've got to get this resolved." And I enrolled him

in a vision of solving this problem and getting a conference call put together, at some point in the future, between he and our team and everybody that could be conceivably relevant to it from the client. And we talked about what that might look like, and what he was going to do, and just before he hung up, I said to him, "By the way, Greg, if you set up this call right, the problem will be solved before you have the call." That's all I said.

About six weeks later he called me and he said, "We had the call this afternoon," and he said, "Mike, you won't believe it: we spent no time talking about the problem. It was all solved. And they explained to me how they had solved it and why it wasn't there any more." And he said, "I don't actually know how that happened, but it had something to do with the suggestion you made that if I did it right, it would be solved before the call happened." And that had a lot to do with him. I created a possibility for him that this wasn't a problem, this was something that was just an issue, that it was a challenge to be met and he was beating that, and the problem got resolved. Now, I'm telling you: I spent at least three years trying to resolve that, directly, in my old ways.

So this is really important, and it's part of this leadership stuff. These failures –because that's what they're going to look like– are not problems but they're challenges; they are opportunities for breakthroughs. And, by the way, you can do this in your life with your family as well as your organisations. You know, we can all take over being the leader of our own personal lives. And everything I'm talking about today applies to that organisation too. I guarantee you. So when you run into hurdles, when you run into barriers, when you're looking at that gap that was up here between what you want, what you've committed to, and where you are and what's likely going to happen, it's not a problem. It's a challenge. It's not a threat; it's not to be hidden. It's to be talked about.

So the breakdown is just what's so. And if it's just what's so, it's not bad, it's not good; it's just what it is. Then it's not a problem. But if people react to it with panic and hand waving and emotional explosions and blaming others, that's a problem. That's resisting it rather than accepting it: "This is what is," and getting commitment from the group to resolve it.

Well, this is just different ways of seeing. And watch –in your own lives and in your organisations– this go on, there's no power here. And what we've found, and maybe there's a better language, but just shifting the discussion from failure or problem to breakdown, and remembering Francine's call to action, and breakdowns are an opportunity for breakthroughs.

So, I'll tell you one more story about SSRN. And my own experience about this is that Alan had come to our house in Vermont, where we were having a high-level strategy meeting with the SSRN Group. There were half a dozen of us there, the CEO and the managing partner from ITX and our guys. And Alan did his presentation on breakdowns and breakthrough technology. And about half an hour later… We have a person, who shall remain unnamed, very influential, very important, but he's a bit of a loose cannon in our shop. All shops have them, right? A great guy, but a bit of a loose cannon. And we found out, because he told us, that a few weeks before that he had committed…, first of all, he didn't have the decision rights to do it, but he had committed about two-thirds of SSRN's resources –we're not a large organisation– to engaging in a project that he had dreamed up. And it was going to take, over the next five months, two-thirds of our resources which, had it actually happened, probably would have destroyed the company. I mean, it was insanity.

Now an interesting thing happened –like back in our other meetings–, instead of blowing up

and name-calling and blaming and disciplining, we ended up having a conversation about what Person X was trying to accomplish, and Greg, the CEO, and I agreed that what he was trying to accomplish was highly desirable, but there was no way in the world we could do it that way, because that was going to destroy the company. And within one half hour, from the start of this discussion to the completion –the start was the recognition of a breakdown– there was minimal amounts of shouting and blaming and all of that kind of stuff; maybe none, but I kind of doubt that; it's kind of hard for me to remember. But within one half hour we had figured out how to get what he wanted and what we wanted, with a very minor expenditure of resources, in four days' worth of time. And it happened.

Now that was a major breakthrough, and it was actually very important to us to get it done. And it was an example of what Alan has told me happens over and over again: from the time the breakdown is recognised and accepted, and the relevant parties recommit… You may not have a formal conversation, but Greg and I said, when we really understood what he was trying to do, "Yeah, that's a good thing to do. We're on board. But this is nuts. Now let's figure out how to get it done." And in half an hour we figured out instead of using two-thirds of our resources for five months, we used a small amount of them for four days and got him those results, and us. That was a breakthrough.

Now, it was also leadership. Did it happen because I did something? No, it happened because we had begun to create a culture –it was interesting because Alan had just taken us through his slides to get us to think about that– and that had changed the way the context occurred to us. So it was no longer a problem; there was no more blaming.

So instead of being threatened, defensive, angry, resistant and upset, all of which is what normally

happens, and keeping it secret from the top guys or the bottom guys. If it's at the top and we realise we're failing, we don't tell the people lower in the organisation, and if it's at the bottom, and they're seeing failure they don't tell the people at the top. And by the way, there is a certain danger in this, as Larry Summers and I found out by telling my faculty colleagues at Harvard we were the General Motors of…

Now, breakdowns can either happen to you; you have this committed result and life is going along great, and suddenly the world shifts and you're set back. And that creates, now, a gap between the predictable result, and you're trying to get back to it. Or you are going along with this predictable future, it was the leader or organisation, and leadership says, "We're not satisfied with that. We're going to do this." Like Kennedy did with the Apollo program, pointing at Defence, creating a vision that nobody knows how to accomplish at the moment.

Now, there are only three ways to resolve a breakdown. The first one is to back off from the commitment. Because look, there is no breakdown unless you've got those two lines, right? You've got a committed outcome and a predictable outcome which is less than that. So if you don't have any commitment, there won't be a breakdown. That's the worst of all situations. That's what… I guess that gentleman who was talking about Kyoto left… But for a long time, there wasn't any breakdown –I'm sorry, he just moved. Now we're close to a breakdown. And now we're going to get action. People are going to start making hard decisions and really facing up to them. It may still take longer than we'd like.

So if you back off from the commitment, the breakdown's going to go away. And top management does that all the time in organisations. Anybody heard of these things called stretch budgets,

stretch targets? That's a game that's played in organisations, where top management actually would be satisfied with X, but they get people to commit to 2X or something like that. And then when they don't make it, they're perfectly happy. Now, it takes about five minutes for people to recognise what this game is all about, so if there's no real commitment, and you back off from it, you're not going to have a breakthrough: guaranteed. If the way you, as a leader, or your organisation and its leadership –which is a better way to think about this– react to a breakdown or the potential threat of a breakdown is to back off of the commitment, there is no breakdown and there will be no breakthrough: guaranteed.

The other thing you can do is wait, or pray for a miracle, and sometimes they happen. The third thing to do is to remain committed –which is what I've been talking about so far– in the face of the breakdown. And you may not get the immediate results that I had at that meeting, but it's amazing what happens once you shift the organisation's relationship to this whole set of things. One, you have to get explicit verbal or written commitments. They have to be public, not private. They don't mean much if they're private. It's not really a commitment.

You have to have a system that identifies, publicises, as widely as possible, the breakdown, and then you've got to manage the breakdown so that you get recommitment. And sometimes it'll be necessary to change the commitment, you know, and that the technology just isn't going to allow this to happen. That's a very delicate process. I plead ignorance. If you read the paper carefully, you'll see that we do a little hand-waving about that. I don't know. Over the next year or two I'm in hopes we'll do better at handling that. How do you handle situations where you really are going to fail? I mean, you've done everything we've been talking about, and you don't get the

breakthroughs. Maybe you set the commitment wrong. It wasn't at all possible. When you back off the power of leadership in the organisation is going to fall dramatically. Your ability to get things done in the future is going to fall, so you need to be concerned about that.

So the amygdala response is shorthand for the eight years of time I spent at Harvard working with the mind-brain behaviour initiative. The amygdala is the organ in the brain that is the source of the fight or flight response. It sits there, all information from the outside world –sight, sound, touch, smell– comes in to the thalamus –I forget now. It's the thalamus, I guess– and the thalamus is about two synapses away from the amygdala and it has a very thin pipe, but it's very quick going to the amygdala. And the amygdala basically sits there saying, "Does it eat me or do I eat it?" And if I eat it, everything's fine. If it eats me, it rings the alarm bell and all kinds of stuff happens to the body. The brain gets flooded with neuro-chemicals, so the human beings are no longer rational human beings that we think of. And it takes (sound of snapping fingers) like that. And it happens because when that stuff is coming into the thalamus, it takes two paths. One is two synapses away, it happens almost instantaneously, and then hundreds of synapses away is the various locations in the cerebral cortex, where these signals go to. By the time they get there, the amygdala has already flooded the cortex, the thinking, conscious part of the brain, with neuro-chemicals that make it no longer a functioning brain in the way we think about it.

So medical doctors know that if you're going to tell somebody bad news, you better have a relative there, or a friend, because they're not going to hear it. And you know, if you've ever given negative feedback to employees, or your family, you know by the time you say, "but," they're gone. They know what's coming and they don't take in what

you tell them anything like what they normally do. They don't store it properly; you know, what they're recounting of events will be nothing short of bizarre.

So all of this… And a very important way to think about what I've been talking about so far is, you as the leader, or your organisation, in creating leadership, has got to change the context in which breakdowns are seen so that you don't get this amygdala response. So that you get a Francine kind of event in your organisation in which it's okay to have breakdowns. "Mike's not really mad because there's a breakdown. Nobody's going to get fired. It's an opportunity for a breakthrough." A huge change, it bypasses the amygdala.

This is reflective of our personal life too, when Sue gets frustrated with me.

So here's a complicated plan and management puts it all in and we're going to invent something here to solve the problem. What's in the individual boxes makes no difference. Invent something here and here we get a miracle and then we're done.
So the leadership view was, "If you're going to go along, you better plan. If you're trying to accomplish anything worthwhile, you're going to have breakdowns, and breakdowns and breakdowns. And you're going to get recommitment and you're going to get breakthroughs. And some of them are going to be really great and some of them aren't going to be so great. But if the project is going to be successful, you'll resolve the breakdowns.
Very interesting: about a month ago I saw the last two-thirds or so –well, no, actually I saw the whole thing– of a documentary about the building of the Trans-Alaska Pipeline from Prudhomme Bay to Valdez, in Alaska: 800 miles through some of the most difficult, hazardous terrain in the world, permafrost and mountains, so they're going to put this six foot diameter pipeline through there pumping, I don't know, four million, five million

gallons of oil a day. And the people who did the documentary did it in the following context: How stupid were the oil companies, and how reckless with the world, that they set off to accomplish this thing without actually knowing how it was going to get done.

And it's actually –viewed from the standpoint of leadership– an incredible story. It's also interesting the way the people who did the documentary tell it. They tell it as incompetence, failure, evil because they hadn't solved all these problems before they started. Now, I'm not saying they didn't make mistakes; they did make mistakes. But they built it in a record time and it still works in conditions where people said it could never work.

And the capstone of these difficulties, right at the end they were within a couple of miles of Valdez and they had to go up a ridge –it was almost a mountain. They actually showed it, with the snow blowing and incredibly… And it was virtually vertical, not quite, but virtually vertical. And nobody knew whether how they could actually do this. First they didn't know how they were going to get a bed for the thing created. They worked out ways to hook up caterpillars and somehow talked guys into driving them down this mountainside. And then they had actually videotape of the situation because finally the pipe-fitters… Nobody would go up there and risk their life to start welding this thing once they got it in place. And the oldest pipe-fitter in the whole shop, this guy was about 65 years old or something like that, volunteered to do it. And he showed that you could go up there. And it was really perilous. Nobody died, nobody got hurt. And he showed that it could be done, got a breakthrough, and the rest of them piled on and they got it finished, and it was enormous. And the guy who was a forty-something-year-old fairly young guy who directed this, and he died about twelve months later, and his friend said that he put everything

he had into building that pipeline, and when it was done he just died. But he was an amazing leader. It's a fascinating story, fascinating for two aspects. One is the breakdowns that they faced and the resolutions of them, and then the other story about the documentary people not seeing what real leadership was about.

So these are some summaries of the… If you read Alan's reference here, Alan's paper on some of his projects, they did ten software development projects back in those early days. On average, they saved 58 million dollars on each of them, improved productivity on the order of 2.6 times the business-as-usual plan. That's exactly what we've seen at SSRN: roughly a threefold increase in productivity. Interestingly, not only a threefold increase in productivity, but we used to be thought of as one of ITX's worst clients and so, for the development teams that got assigned to us, that was considered the booby prize, if you got assigned to SSRN, I found out later. And after we started thinking about the issues this way, we became the most fun client to work with. And the turnover went to zero, the amount of overtime that they were working went to zero except nobody had to pull all-nighters any more, except on the time when we did a code post. We benefited by productivity rising like about 300%. It was really important to us. So everybody was having a better time as a result of thinking about the problems and the commitments this way.

Now, it's not easy to keep it going, I want you to know. So it's also been used in auto plants, paper mills, sales teams, on and on and on. But at that level, you know, it's like project management or like what we were doing here. But the most important application of this is to the Robert F. Kennedy kind of thing, for the top level of an organisation to really think about. And we ought to be teaching this in business schools, and I don't know a single business school that is teaching it.

I didn't learn it, and I don't think my colleagues at Harvard teach it, and they haven't invited me to give them a seminar on it yet, but: commitment. This one is one line at a time.

We've already said: no breakthroughs without commitment. Is there anybody that's puzzled about that? Because if you don't get that you won't get it all. If there's no commitment, there's no breakdown, and there won't be a breakthrough. Everything is just fine.

Commitment is a speech act, and it's unlike typical speech. And it's an individual act. As I said before, commitment is possible only when there's choice. It can't be coercion. I cannot coerce you, "If you do not commit to this, you lose your job." That's not commitment. You'll say, "Yeah, Mike, I'm enthusiastically a part of the team." No. It has to be… And it exists only for an instant. It has to be renewed, continually reinforced. There are lots of forms of commitment. There should be a footnote. There's this… I think it's in the handouts, but Fernando Flores –and I think there may have been a coauthor– has written this remarkable book about language, and this is a part of that book. Promise is a commitment. A request is a commitment: I ask you to do something and I agree to accept it and probably I'll pay you, or there's something like that going on. Assertions and declarations, I'm going to talk at length about assertions and declarations.

So, an assertion is a situation where a speaker commits to a listener about the existence of something, or non-existence of something, and the implicit commitment there is that I will provide –if I am the speaker– evidence in support of whatever it is that I am saying that you will find persuasive and you will then conclude that it also justifies the assertion that I made, alright. Now, these are examples of assertions. So you've got a prosecutor saying, "The defendant is guilty."

Now, I'm asserting the defendant is guilty, that is, I'm going to prove to you to your satisfaction that the defendant is guilty. We know the defendant is not guilty until the judge says, or the jury says he's guilty, right? That's a declaration. We're going to come to that in a moment. "The project will be complete by September 30th, 2005, and I can show you the detailed plan."

Here's a non-assertion: "I think O. J. was guilty of murder," "The project will be complete by September 30th, I hope." By the way, "try," the word "try," or the Spanish equivalent of it –I'm sorry, I don't know any Spanish–, does not exist in the vocabulary of leadership. If you say, "I'm going to try" to do something, that's not a commitment of anything. You're not on the line for anything. You know when you're making a commitment because you're going to feel a little knot in your stomach: "What the hell? How the hell am I going to do that?" "The project, I hope, I'll try to get it done."

So those are assertions. That's the language of management. Assertions. Declarations are the language of leadership. And declaration is a very specific form of speech act. Most of us are unaware of it. I certainly was. Through a declaration, as John F. Kennedy did, the speaker creates a new state or a new possibility for the listener. Examples: when a judge says, "The defendant is guilty," the minister says, "I now pronounce you man and wife." Now, sometimes we will get the attitude that declarations don't really change anything, they're not real. After the minister or the priest says this, just try and undo it, and you will find out how real it is. The consequences of violating those vows are huge. It's real, and it's all because two people walked up and stood in front of somebody and he says, or she says, "I pronounce you man and wife." That's a declaration. It's a changed state of the world. And when John F. Kennedy said, "We'll put a man on the moon and bring him back by the end of the decade," he changed the state of the world. It could have failed.

So declarations are the language of leadership. And where do declarations come from? Nowhere. Don't confuse them with, "I'm not going to be able to provide you with a plan that guarantees we're going to accomplish this. I don't know how. But I'm declaring that we are going to do this. I am committed, and I'm going to maintain that commitment until we get it done." In my younger days, I understood this. I remember, as a young faculty member at Rochester, somebody told me –it was George Benston–, "You know, Michael, you just never give up, do you?" And that got me thinking about it. And the world almost can't resist persistence. That is, if you're really committed to something, and you stand for it, and you just… It doesn't matter that it's not working, it's not going, that there's hurdles to be overcome. My experience in life, before I ever intellectually got this, was that if I was just consistent and persisted in what I was about, the world would shift and it would happen. It's a pretty amazing phenomenon.

So, the persistence part comes when you commit to your own integrity, that's very important. In a different lecture we talk about taking a stand on your integrity. Commitment persists when there are committed listeners who are committed that you are actually going to deliver on your commitment. Very important. Because if you stand out in the middle of the woods, or they don't care, it doesn't have the same effect on you as when there are a whole bunch of people. Like, you tell your family or your employees, "I am committed to this," and they want it to happen. So they're maybe not on the team to make it happen, but they're committed that you are going to deliver on your commitment. That makes a difference. You see the subtlety that's involved here? It really makes sense, but there is some subtlety.

So when are breakthrough projects inappropriate? When predictability in certainty of producing the outcome is paramount. You know, maybe this is a small element of a very large project. You better not be making bold bets in situations like that. And if you are, the customer who's going to use that for something better understand the risk you're taking. So there are situations where you do want to make risky bets, breakthrough projects, major leadership effort. And there are other cases where a more risk-averse management-oriented approach is just going to get something done. And after we work on this more, I think we can do much better at laying out the parameters of how to think about that. But at the moment that's very sketchy. I just wanted to point out to you that it exists there.

This is the issue that I hinted earlier, that I don't have solved yet. Alan and I call it "The More than Expected but Less than Promised" issue. So, this isn't a very good vision, but it's easy to think. Suppose that business as usual is 1X, whatever X is (productivity, quantity of output, quality of output), and the commitment is to do three times that much. That's the vision and the commitment. Now, suppose they deliver 2X. That's 100% better than we had before, right? But they failed to deliver on their commitment. So if we punish them for not delivering on their commitment… And Alan tells stories of being at IBM, where teams were doing phenomenal jobs, the project wasn't even over yet. A new manager came in, he was a real manager, and he says, "What is this? You guys didn't even meet your commitment. You didn't keep your

word." And he nailed them in the performance reviews and punished them. Now, what does that do? Even though they delivered two times, a 100% increase in, say, productivity. That'll take the steam out of your sails, no doubt whatsoever about that. And in fact, it's a very… I don't understand how to handle this. You've got to reward them for doing what they did, but they've got to bear some costs for not keeping their word, for not making their commitment.

And my concern is –this was the concern, why I thought it was all baloney when I first read Alan's paper and talked to him about it– was that, that'll devolve into the typical "Paying People to Lie" system that we all know about, even if you haven't read my paper on it. That is, you know, we have these budget systems that create targets, and then we measure people on how close they came to taking their target. You know, if you get 80% of the target, there's a hurdle bonus, there's a typical executive compensation. And it rises linearly or maybe it's nonlinearly to some maximum that's usually is 120% of that target, and then it gets flat. And what that system does is causes people to lie about what they can do, right? It's the whole underperformance, overdeliver phenomenon, as (Soez Azzizi?), who wrote a book a number of years ago, before I started to work on this, said.

So here's what happens in that system, a typical system. And those of you who have been in them or observed them know that this is a pretty accurate description. The people lower down in the organisation, when asked what they can do, and knowing, sort of, what are they going to promise to commit to, knowing that they're going to be rewarded on how close they get to it or how much they beat it by, what do they do? They lie about what they can't do, right? I lie about how little I can do. But of course, if you're my boss and you grew up through the system, you know that I'm going to lie about how little I do, so you, my boss, lie about how much I can do.

Now we don't use the word "lie" in this, because we all see it as a negotiation, right? So the polite words… I had dinner in Paris a few months ago –as a matter of fact, that same trip when I was here the last time, I met and had dinner, and one of the guys sitting next to me was the CEO of one of the major accounting firms. Somehow he announced in the middle of dinner, that that was the philosophy, his philosophy of business in the entire firm was run on the philosophy of underpromise and overdelivery. I wasn't very popular when I said to him, "I call that lie and lie." That's an incredibly deadening system, nobody… First of all, think about what happens when lower-level people are lying about how little they can do or what they can't do, and the upper-level people are lying about how much they think I can do. Nobody is providing accurate information about what anybody can do into the system that's necessary to coordinate these disparate parts of the organisations. It's all lies. We don't use that language and we justify it because it's negotiations.

And the resulting performance that comes out of that is unbelievable. One hundred per cent increases in productivity –that's my own guess– can happen by eliminating those systems. That's the cost we're paying. And that's exactly the thing that you start to get to when you start mucking around and trying to deal with this very difficult logical problem that at the moment I can't solve. But in a year or two I predict we will have a way to think about it that does get us through it. What do you do in a situation where people committed to 3X and only produced 2X? That was a lot better than what the current performance is. Twice as good. So I'm sorry I have to leave you with a problem. That's a breakdown and an opportunity for a breakthrough.

Any comments, questions, challenges? There's still a couple of minutes left. Yeah?

Audience question

This is a very specific question on your difference between assertion and declaration. Now, if I'm making an assertion and I want to enrol people with me, I can support my assertion with evidence that's backing me up, so I can convince, rationally, people of my argument? Now, the question is, there must be something doing a similar function in the case of declaration. The example of the judge, for example, this is perfect. While I was reading this, it came to my mind, for example, the judge, because it's clear that the judge is changing reality with the declaration. But it's very clear for me what is backing up his or her declaration, the whole system is backing him up. And he is given authority here. Now, that's the reason why the judge really can't, let's say, like, enrol people. He is changing the way people act because the system is backing him with authority. The leader has not a legal system, like in here. So my question is, what is there helping him to enrol people. Is it something like charismatic leadership or something?

Michael Jensen

You didn't mention integrity. That will be a very important part of it, to the extent that the leader has a reputation of integrity, he honours his word. People will be more likely to follow him than if he doesn't. But it's a very magical process. And there

is something called charisma, and I don't know, I can't define that for you in a scholarly, scientific way yet, that plays a role. But a very important part of it is… You can see people, and I have, and maybe you've seen some that can be very persuasive, but they have no real commitment, and they don't turn out to be leaders, because people figure out very shortly that they have no real commitment to it. So if you back off and give up the first time you run into difficulties, you're not going to be a very effective leader.

You've got to be willing to be there in the trenches in the hard times as well. I haven't had an opportunity to, but I intend to spend some time studying what they do with leadership in the armed services. Great armed services, armies, create leaders which men and women will follow, even to their death. And that's a complicated set of things. You know, I'm glad you came back to this, because the important thing for us all is to begin to get the incredible difference between an assertion, which means that I have evidence that will convince you that this is true, or we can accomplish this, because I've got the plan and you'll look at the plan and you'll say, "Yeah, I can see how if you do this and this and this, yeah, I can see how that'll happen." That's an assertion. That's in the world of management. That's what management is all about. Management is not about declarations. Leadership is about declarations, saying, "We are going to do X," and then when somebody says, "Well, how are we going to do that?" "I don't know how we're going to do it, but we're going to do it."

In the paper there's this quote from some military leader, I've forgotten right now, it's a great one. Somebody said, "Well, how are you going to get over some set of mountains?" He said, "We'll either find a pass or make one." You get the difference? So a declaration that says, "We're going to double the value of the company," is not likely to be very enrolling. See, the next step, the leadership is the

vision and the declaration. But it's got to be done in a way that enrols people and then there has to be some other stuff going on to enrol people in it. And what is effective enrolment amounts to a situation where we create the vision and declaration in a way… And then the enrolment process allows people to figure out how concerns of their own are going to be satisfied by the realisation of this vision.

It's not just pay. That can be an element of the compensation, but when people see that there is something, one of their basic concerns… I don't know; what turns me on about SSRN? What caused me to spend such a large fraction of my life after Wayne Mahr enrolled me in getting involved and then he quit, and now I've got this thing and it's like this boulder that I've got in my head. But it's a lot of fun. So why I persisted in it was because it satisfied some deep concerns of mine. Xavier summarised some of them, to see inefficient journal systems gotten around, (and made to go quicker?). Does that help at all? Because it's very important, that your vision land on some sufficiently large number of people that you can actually stand a chance of getting it accomplished. Because if it's only you, you probably won't make it, unless it's a small kind of thing.

And, you cannot make a declaration or a vision without being willing to take on risk. It's all about risk. It's not an assertion; there's no evidence to show that you have no real plan as to how you're going to get there. But that's what leadership is.

Now, you've got to be sensible about what visions you choose. I don't know how to calibrate that yet, either. You have wacky people saying they're going to do things that are truly impossible. That's not very productive, and an organisation can be ruined by that.

Every major, big victory in organisations is accomplished, whether it's a university or whatnot,

are usually accomplished by… Some small group of people that has a vision, and then it gets populated to a larger group. And those people voluntarily make commitments. I'm sure Xavier can talk about the people in his organisation that are committed to ESADE in various ways. And without them it wouldn't happen, and there are breakdowns. And the tendency, in organisations, is to think the breakdowns are failures and we didn't do something right.

The plan should have those little breakdown boxes in there. You don't know exactly what they're going to be, and when you begin to look for the breakdowns and then publicise them, you're much more likely to get the breakthroughs.

Well, we're five minutes over; I'm out of integrity.

Xavier Mendoza

Thank you for many of the thoughts you could bring us. I don't know if…

Michael Jensen

Let me interrupt just for a moment. I know people have schedules and I'm happy to take questions, but anybody that needs to go, you feel free to please leave. I'm not asking you to leave, but I just don't want you to feel embarrassed for leaving. Now you and I can talk. Great.

Xavier Mendoza

Okay, thanks. I was wondering: how many leaders should there be in an organisation? How many managers? And I'm not sure this has much to do with…

Michael Jensen

Oh, it's a great question. It's a great question. Everybody should be a leader. All right, let me take an extreme position. And why I say that is because –the first thing I warned you of in the beginning was that I was going to talk about leadership as though there was one person, one man, one woman doing it. That's not true. Seldom is it true, even in the case of John F. Kennedy. There were a whole group of people around him that helped him put together that vision, that helped him write that speech, that put together relations with congress. All kinds of stuff was going on. The trick, and this is going to involve a combination of management and leadership, and if Alan were here he could tell you all kinds of examples as he worked his way up through the bowels of IBM, where leadership occurred at very low levels in the organisation. And in fact, that's a lot of what empowerment and decentralisation is all about, but it has to be constrained so that you don't get in the situation that I talked to you about at SSRN, where somebody had committed 65% of our resources to –which was a crazy decision– a useful project.

So, I guess the way to answer this is, leadership and management have to be balanced in an organisation. And my guess is you don't often find great leaders who are also great managers. My casual observation is, if you look at the great leaders, they tend to be associated with somebody who's kind of the inside guy, who's a great manager. So, I don't know whether this describes Warren Buffett as a great leader, and Charlie Munger, who makes it work. Over and over again, you see that kind of thing happening. I think there are cases where you find the two things combined in one person, and that's a pretty remarkable situation, because they're basically one is risk-taking and the other is risk-avoiding, taking it out. And think of what we do or don't do in our management education by not

emphasizing enough and having… I can't give you good enough answers about this because it's just dawned on me, but I don't think we've done a very good job at Harvard of educating people about the difference between management and leadership. Now, I've talked pretty much only today about leadership, but not about the management side. And then there's a whole other discussion which is maybe bigger than either of those, as to how you blend them. And at least where I am in this business at the moment it's still that of an amateur, so I can't give you a very clear answer to that. But it's an area that's ripe for research, and I know there are people like John Kotter and Dave Logan at USC, and others like that, who are working on that. I'm anxious to see some breakthroughs come out of it. Very good question. Thanks.

Audience question

It's not a question, it's just a comment. I like this notion of integrity. When you say integrity you are thinking about a person who has a special attitude by which he never says, well, a leader who never says, "I will try," and always, "I will get this. I will do this or I will not." I understood it like this. And yeah, I like this, but I was thinking, "Is this possible in our society?" I mean, here –maybe this is different from the US–, here failure is punished.

Michael Jensen

I gave a talk last week to a bunch of financial managers on private equity. No, it wasn't last week; it was two or three weeks ago. So a guy said, "That isn't the way I manage my relationship with my wife. I have to underpromise and overdeliver. So I gave him a four-minute version of "Leadership" and how underpromising and overdelivering is a race to the bottom. And he said, "I got it!" But think what that does in a relationship, when you underpromise instead of… Sue, you're not allowed to say anything. I'm just kidding.

Audience question

No, I just think it's very interesting… It's not necessary to talk about leaders but only for ourselves, for everyone, so it's better when one thinks, "Well, I will get this done," and believes it, or changes it when necessary, than always being like, "Maybe I will get this or not." One feels much better in the first situation. I may be generalising, but I can think for many people it's much.

Michael Jensen

Sue will tell you: I'm always overcommitted, and having to try to make up for not delivering on my…

Audience question

But I think it's difficult. Sometimes you feel like you are against the flow.

Michael Jensen

It is. But if you never declare, the likelihood of anything great really happening –you know that would be unexpected and beyond the pale– is pretty low. I mean, miracles do happen. But you can make miracles happen, by being willing, both as an individual and as an organisation, to make declarations, because that's what a vision is. You know, a vision isn't something like… It would have been very different if John F. Kennedy had given that speech and ended by saying, "We're going to try and send a man to the moon by the end of the decade. And we're going to try to bring him back alive."

But that isn't likely to enrol a lot of astronauts, as opposed to saying, "We will bring you back alive." And, be honest with the fact that I don't know how to do that now. You've got to be honest about that, so you're making clear this is the domain of declaration and not assertions. Okay?

Any other questions, comments?

Xavier Mendoza

We started 15 minutes late, so it has been a two-hour talk. I really thank you for your insight. I think you have put the finger in a real place where leadership is this commitment for people implications and the essence of leadership is in the breakdowns when the real things are happening. Thank you so much for being with us and especially for making the effort just to come from the airport to give us this presentation. Thank you very much.

ESAD**E**

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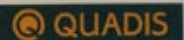Tel.: + 34 932 806 162
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