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Mission Impossible?
Teaching Corporate America to Think

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ABSTRACT

Why American management is ill-pre-
pared and even resistant to facing the
challenges of a turbulent world.

I write as a generalist social scientist who has taught in a business school for seventeen years. During that time, I have lectured to innumerable practicing managers and executives, consulted to many of the leading Fortune 500 Corporations, conducted intensive workshops on issues of extreme strategic importance to those same corporations, and finally, taught several generations of MBA and Ph.D. students. I believe therefore that I am in a position to assess the state of thinking in corporate America today and how well suited it is to meeting the kinds of problems the current environment presents. I've seen the mind of corporate America and what I've seen gives me great cause for alarm.

I should make one thing clear. I am not saying that there is a complete lack of talented individual minds. I have met men and women at every level of top corporations who display the qualities of mind needed to cope with the special issues of the day. The problem is that they are few and far between, and they are isolated. This is where I disagree strongly with such recent best sellers as In Search of Excellence. I find that there are few collective organizational minds or cultures that are able to display the qualities of thinking that I believe are essential to wrestle successfully with today's issues.

I should also make it clear that the men and women with whom I deal daily work as much in the so-called "public sector" as they do in the so-called "private sector." Strictly speaking, I am thus really not talking about private corporate America, but about big organized America.

All of the men and women with whom I deal are struggling with the same basic issue: how to make sense of a world that no longer plays by the old rules. No matter what kind of organization in which they work, they are besieged by three fundamental dilemmas. One, they are faced with issues they have never experienced before, and hence, for which they have no experience in dealing with. Two, the issues with which they are struggling are not only new but they come at them faster than before. They barely have time to deal with one issue before it seems like ten new ones are bearing down on them from all sides. Three, and this is the most bewildering of all, nearly every one of the old tools that they have used so successfully in the past in dealing with problems no longer work. Worst of all, the old tools not only fail to solve current problems, but they actually make things worse.

I've assembled a short list of problems that make today's world special:

Item 1: In Spetember of '82, Extra-Strength Tylenol capsules are traced to cyanide poisonings. The parent company, Johnson and Johnson, eventually recalls some 31 million bottles with a retail value of over S100 million. Analysts are quick to predict the demise of the brand name but through the quick and forthright reactions of J & J executives, it miraculously recovers to nearly its sales before the tragic poisonings. The perpetrator or perpetrators however are never caught.

Item 2: In Spetember 1980, Procter and Gamble withdraws Rely tampons from the market after government researchers report that over 70% of those

contracting Toxic Shock Syndrome had used Rely.

Item 3: A Northridge, California firm releases an "adult" game cartridge called Custer's Revenge in which a naked General Custer dodges flying arrows to have "intercourse" (some outraged groups contend "rape") with an Indian maiden whose hands are tied behind her back to a stake. The game cartridge is compatible with Atari equipment. The basis of Atari's business is its identification as a provider of clean entertainment for the entire family. Guess what this does to Atari's image via guilt by association.

Item 4: A strange religious sect declares that Procter and Gamble is in league with the devil because the symbol on all its packages is a picture of a man wearing a "sorcerer's" cone shaped hat with a half-moon. Sears-Roebuck, the nation's largest retailer, is similarly accused when the first three digits of all its innumerable plastic credit cards are somehow assigned the number "666."

Item 5: Unacceptable levels of the pesticide EDB force the recall of thousands of cereal and baking mix boxes from across the nation with the subsequent loss of millions of dollars.

Item 6: An "influential research group" identifies 65,725 chemical substances that "could affect the health of Americans and [finds] that a majority have not been fully tested for toxic defects.

Item 7: A recent article in Fortune predicts that one of the most time-honored planning tools of business, the product life-cycle curve,

seems headed for the dump heap before the end of the decade. Whereas some forty years ago, the time between the birth and the death of a product like a refrigerator could be as long as thirty years, in an age of mass advertising, marketing, and buying, the time between birth and death of a product is quickly shrinking to zero. But if so, how do businesses plan in an unpredictable environment for the mix of products they deliver to the marketplace?

The items above could be multiplied endlessly. They are no longer rare exceptions. Further, it is no longer appropriate to view each in isolation. Each is a symptom of a deeper problem facing us today. Each is part of a larger pattern.

One could quibble as well whether each represents a "totally new" phenomenon or whether we are just more aware of their widespread occurrence. Whether they are absolutely new or not is a diverting side issue. To the mass of managers with whom I and my colleagues deal, these issues are absolutely bewildering whether they are totally new or not. Most managers just don't know how to think about them. They haven't been prepared either intellectually or emotionally to face them.

While it is clear that every one of the aforementioned items has tremendous financial implications for the affected companies, none of them is essentially financial in nature. They arise from kinks in the larger biological, political, and social system of which we are all a part. But

it is precisely these other "factors" that business people, for the vast part, have not been taught to think about. They don't fit into all the nice, neat financial formulas and methods of analysis that students are taught to manipulate in business schools. Furthermore, the cultures of most organizations do not generally reward their members for thinking about such issues. As a result, most managers have neither the intellectual tools nor the emotional preparation to acknowledge their existence and to tackle them decisively.

There is a simple yet powerful way of gaining insight into why most people are extremely reluctant to face such issues. About thirteen years ago, a sociologist by the name of Murray Davis published a fascinating paper in an unfortunately obscure social science journal. The paper was entitled, appropriately enough, "That's Interesting." In the paper, Davis sets out to answer the question, What made the great social scientists like Durheim, Marx, and Freud "great"? Davis's answer was not that they produced theories which were somehow truer and better than those produced by the average mortal for there are no perfectly true theories in science. All theories are approximations which break down at some point and hence fail to explain what they purport to explain.

Davis's contention was both more subtle and hence more interesting. He contended that the great social scientists were great because they produced theories that were "interesting." Aha, but what makes a theory interesting? According to Davis, an interesting theory is one which first raises up to the surface an assumption that a significant body of people

take as valid without question. Second, the theory mounts a very strong challenge to the assumption. And third, it replaces the initial assumption with a counter assumption that is the complete opposite of the initial one.

A simple example is the view of the mind before and after Freud. The initial assumption was that the complete contents of the mind were available for inspection by consciousness. With Freud, the counter-assumption was that significant parts of the mind are not available to consciousness, indeed, are repressed from consciousness by the unconscious.

David points out that "interestingness" is a tricky business. If I give a talk or write a paper that affirms everything you believe, the likely response of most people is "that's obvious!" and hence, "that's not interesting!" On the other hand, if I challenge in the strongest way one of your most sacred assumptions, certainly if I challenged all of your most sacred assumptions, then the likely response is "that's absurd!" or "that's outrageous!" and hence "that's not interesting either."

Davis didn't put his insights into the shape of a curve, but if he did, the result would have looked something like this:

Degree To Which An Assumption Is Challenged
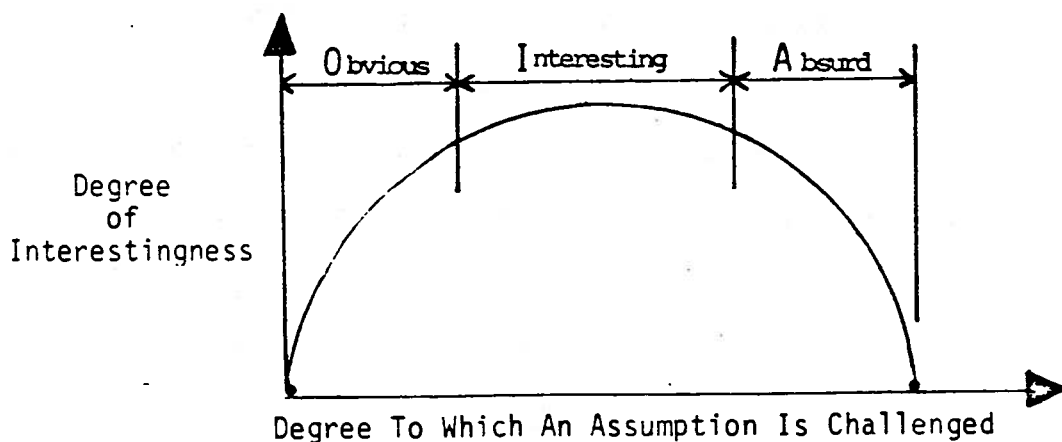
The "O" stands for the "that's obvious" region. "I" for the "that's interesting" region; and "A" for "that's absurd or outrageous." Notice that the two extreme points, extreme obviousness and extreme absurdity or maximum challenge to one's beliefs, are both perceived by most people as uninteresting.

I think this helps to explain what's going on. From the talks I've given and the reactions I've received to them, it's clear that all seven of the aforementioned items are for most people in the A region; some of them are in the most extreme portions of it. It's also clear from my experience that most people, at best, have been "trained" (not broadly "educated") to move only marginally into the I region. One could argue, and I would agree, that the most innovative companies are those which foster an environment that encourages people to move much further into the I region than they could do on their own. It's well known from social science research that groups can either retard or enhance the risk-taking and/or innovativeness of their individual members.

We thus have a fundamental gap between the kind of phenomena the world is thrusting at organizations and what they are mentally prepared to deal with. The trouble is that I see no slowing down whatsoever in both the rate and the number of phenomena intruding from the A region. At the same time, I see no accompanying growth in the ability of organizations to think about phenomena in the A region. This is why I believe that most organizations today are virtually powerless to protect themselves against A-type phenomena.

What bothers me even more is I'm not sure they can think about the farthest reaches of the I region, let alone the A region.

This I contend is really the essential problem of corporate America today, for it is precisely in the I and A regions where American management needs to learn to think if it is to meet the challenges of the new world competition it is facing from every quarter of the globe. So it is not merely facing the bizarre I am talking about, but being able to think the unconventional if business is to survive. This of course assumes that "the bizarre" and "what's needed to survive" are far apart in today's world. I don't think they are.

One of the reasons why our culture is having trouble in shifting from old, standardized industries to new, hi-tech ones is because the shift is more than merely a change in our industrial and technological base. Fundamentally, it represents a profound shift in how we think about the nature of the world.

I have found that most managers are burdened with (at least) nine assumptions which are not only outdated, but which prevent them from moving deeply into the I region. Specifically, I have found that if most managers and organizations are to meet the extreme challenges of today's world, then they will have to give up their deep-seated belief in the following:

(1) If only we try hard enough, there is one right or best answer for every important problem. This is the "one right approach" or "best answer" assumption.

(2) For every complex problem, there exists a clear-cut procedure or an exact formula for finding the single right answer to it.

<u>This is "there exist magic formulas for finding the single,</u>
<u>right answer" assumption</u>.

(3) The more information, data, or evidence we have about an important problem or issue, the better off we are in understanding it and in being able to solve it. <u>This is the "more</u>
<u>is better" assumption</u>.

(4) There is a clear-cut, sharp dividing line between simple problems and complex ones. <u>This is the "there exist simple things"</u>
<u>assumption</u>.

(5) All complex problems or issues can be broken down into a series of simple problems each of which can be solved independently of one another. Further, the solution to any complex problem is nothing more than the sum of the solutions to all the simple problems into which the original complex problem can be decomposed. <u>This is the "break it down" or the "conquer and divide"</u>
<u>for all problems assumption</u>.

(6) The economic, scientific, and technical aspects of any problem can be clearly separated from the people and social aspects.
<u>This is the "technocratic" or "technical versus people" assump-</u>
<u>tion</u>.

(7) It is possible in principle to be totally objective in approaching all problems and issues. <u>This is the "put emotion aside" or</u>
<u>"it is possible to separate reason from emotion" assumption</u>.

(8) The world is basically orderly. Severe change is only temporary. Things will return to normal if we don't panic and calmly ride out the turbulent times we only seem to be in. <u>This is "the world is basically stable" or "things never really change" assumption.</u>

(9) There is a clear-cut difference between the hard sciences and the so-called soft sciences, between hard, factual data and soft, subjective opinions. <u>This is the "hard is better or superior" assumption.</u>

It would take too long to take every one of these assumptions apart and give it the detailed critique it deserves. However, there is one problem with which I am intimately familiar that challenges more of them at once than any I know. For over ten years, I have served in various capacities as a consultant to the U.S. Census Bureau. Most people are unaware of what the Census Brueau (CB) really does, but it touches in significant ways the lives of every person in this country. One is that the CB is indirectly responsible for the distribution of an estimated 75 to 120 billion dollars in revenue-sharing funds from the federal government back to the States. Another is Congressional apportionment. In both cases, the amount of monies and the number of seats allotted are based on population counts. Hence, getting accurate counts of the population is an important matter.

For most people, mothing could be simpler than counting. This is

because the image of counting most have in their heads is derived from childhood. There one learned to count by simply lining up a small number of objects that were directly within one's view and control and one merely "counted them off." The difficulty is that this simple model doesn't transfer to something as huge and as complicated as a country like the U.S. One simply can't line up everyone from end to end and count off the entire population. They certainly can't be counted on the same day. Further, many don't want to be counted. For whatever reasons they are suspicious of government. Many are hard to locate, keep odd hours, don't have permanent residences, and so forth.

As a result, even though the CB has done a more accurate job of counting the population as a whole in each successive census, it inevitably misses sizable portions. Worse, it misses or fails to count blacks and hispanics more than whites. In 1970, for instance, the percentage of blacks and hispanics missed was roughly 8% while that of whites was roughly 2%. This result, to put it mildly, was not pleasing to the mayors of those cities with large black and/or hispanic populations. Indeed, given the dwindling base of financial support for cities, it is perhaps not surprising to find that for the first time in its history, the CB was sued in 1980 by over 53 separate State and local jurisdictions to get the CB to correct its raw population counts to reflect the numbers of persons it was anticipated that the 1980 census would miss. With billions of federal dollars and Congressional seats at stake, two of the most potent forces that motivate politicians (some say the only two) were present.

What this has to do with our nine assumptions is wrapped up in the following question: How does the CB know (count) how many people it has failed to count in the first place? The CB can't go back and just repeat the whole census. That would not only take too long and cost too much (it cost approximately one billion dollars to take the 1980 census), but the CB knows from going into smaller, well-defined regions of the country and by carefully taking repeat samples or small mini-censuses that the kinds of people who are missed in one census tend to be missed in subsequent censuses. Thus, in order to know how well it is doing, the CB has developed alternate ways of independently estimating the population of the U.S.

The alternate ways that the CB has developed to deal with this problem involve demographic methods. In their simplest version, they say that the net change or difference in a population over a specific time period equals the number of births during that time period minus the number of deaths plus the number of imigrants minus the number of emigrants. If the total number of say blacks derived from demographic methods is greater than the raw census count of blacks, then we speak of an undercount of blacks. In 1970 blacks were thus undercounted relative to whites by 8% to 2% or 4 to 1. Note that it is the relative undercount that is the problem. If everyone in the population were over or undercounted to the same degree then there would be no relative advantage when it came to the distribution of dollars and political power.

Here is precisely where the scientific/technical aspects of the prob-
let get all intertwined with legal/moral/political/social aspects, although
I contend they have been there from the very beginning as soon as the
political decision (i.e., Constitutional) was made that it was important
to know scientifically the "best estimate" of the population of the U.S.
If blacks are undercounted by 8% and whites by 4%, why not, some political and
scientific leaders have argued, merely multiply the raw census counts by 1.08
for blacks and by 1.04 for whites as a simple way to correct matters? The
trouble with this simple method, as CB experts in demography are quick to re-
ply, is that the numbers 4% and 8% are only known for the U.S. as a whole, i.e.,
at the national level. Multiplying the raw census counts of blacks and whites
at the State, county, and city levels, the very levels where one would like
accurate counts for the disbursement of dollars and Congressional seats,
by the constant factors 1.08 and 1.04 leads to worse errors in many locations
than not doing anything at all! Furthermore, even the numbers 8% and 4%
at the national level are somewhat dubious since accurate birth and death
records only go back as far as 1935 in many States. For persons born
before 1935, estimates for those segments of the population have to be
gotten through estimates of the ratio of male to female births, ratios
which are themselves not always reliable. Which number or estimate of
the population should therefore be used to check on which number? Is
there really a single best number of the population of the U.S. at any point
in time which can be known to fallible human mortals? What question
could be easier to pose, namely counting, and yet at every twist and turn
becomes as complicated as any question in pure science or partisan party

politics? I know of no other.

Some people have proposed both in jest and in seriousness that one solution to the undercount problem is to require everyone to stay at home on a certain designated day every ten years. Even assuming that this would solve the still formidable scientific and technical problems in counting a population of the order of 226,500,000 people, critics are quick to point out the cries that civil libertarians would rightly raise. There is no way that this would not be seen as infringement on the rights of the American people, not to mention the cries that would come from those who would see the severe loss of income and productivity to the national economy that would result from this proposal. In either case, the point is that a particular political/social mechanism is proposed as a solution to what is on the surface merely a difficult scientific/ technical problem. It begins to be apparent that every proposed solution to the problem involves simultaneous legal, moral, political, scientific, social, and technical considerations. Indeed, the various "aspects" of the problem interact so strongly that it doesn't make any sense anymore to consider them as separate. They certainly can't be considered separately since they impact on one another so strongly.

To appreciate this even further, consider another aspect of the issue. One of the earliest suits that was brought against the CB with regard to the 1980 census was by mayor Coleman Young of Detroit. After listening to the evidence on both sides, the presiding judge, Horace Gilmore, decided that the Constitutional principle of one-man one-vote was so important

that he ordered the CB to correct the raw counts even though the CB had good reason to believe that the undercount for the 1980 census was going to be very close to zero, and further, that the CB had no known, scientifically acceptable way of correcting for such a small difference. In effect the CB was not only ordered to do what it considered scientifically impossible to do given the state of the art of current demographic methods, but it felt it was being punished for what its own studies had revealed in an earlier census. The CB's basic commitment to science led it to do what other government agencies do not, namely conduct studies as to how well it was performing its job, and to publish those studies in the public domain. The scientific world so-to-speak had thus given the political world the ammunition to sue the scientific in the legal!

Finally, consider one of the more comic and ironic twists of the whole issue. I mentioned earlier that 53 separate localities sued the CB to correct the raw population counts. Since many of the suits were the same, it was easier to file a few class action suits rather than instigate fifty-three separate cases. Another seemingly "simple" question arises. How should the court costs be apportioned? If you smiled when you read this question, then you probably guessed the answer. "On the basis of population counts of course!" The very thing the localities were suing the CB over was good enough for allocating court costs but it was apparently not good enough for allocating Federal dollars and political power.

The moral of the CB example is that there are no simple problems anymore. The era of simple problems like that of unlimited energy and resources is over. All problems that are worthy of the name have vital scientific/technical aspects which interact strongly with important legal/moral/political/social aspects. These aspects can not be clearly separated from one another without doing violent damage to the basic nature of the problem. In this sense, the CB case is not only a premier example of the kinds of problems that are found in the "public" sector but it is also increasingly typical of the kinds of problems that are found throughout our entire society.

An interesting question is how we came to hold the views regarding problems that are expressed in the nine assumptions I stated earlier. One factor is certainly the immense hold that the Industrial Revolution exercised on our minds. We tend to forget that during the Industrial Revolution and the centuries that led up to it the entire world was conceived of in mechanical terms, as one big, giant machine. The idea of a machine was so dominant that the world was not just "thought of" as if it were a machine; it literally was a machine. Now one of the natural properties of machines is that they can be naturally disassembled into their "independent, constituent parts." Hence, analysis by reduction of a complex whole into its separate atoms was and still is the favored mode of this way of thinking. The trouble is that today we live in a complex system where everything not only affects everything else but is increasingly a part of everything else. I defy anyone to separate the so-called transportation problem from the education problem from the political, economic, etc. That way of thinking

just doesn't make sense anymore.

A second factor is our whole educational system. For the most part students are still taught to _solve_ canned exercises. They are not taught to _formulate_ problems. There is a vast and fundamental difference between the two. Exercises generally have one right answer because they have been pre-formulated by someone else to have this supposedly desirable property. A simple example is: if X + 5 = 11, find X. Problems on the other hand never have a single right answer because there are at least as many different statements of the problem as there are parties who are potentially affected by it. An example is the CB problem. The courts certainly didn't define the issue in the same way that the CB did.

We have reared generations of students to expect the solutions to problems to be like the solution to exercises, the production of a single, unambiguous best answer that is accepted as such by all affected parties. We have raised countless generations on the equivalent of intellectual junk food and then sent them out to a hostile, dynamic environment that is under no obligation whatsoever to respect our way of organizing the world for our convenience. We have raised generations of "certainty junkies" when instead we should have prepared students to cope with ambiguity and uncertainty. We have fostered the quick-fix mentality. We have aided and abetted the penchant for reducing the complex to the obvious when instead we should have developed in students and practicing professionals the ability to look at multiple, competing definitions of problems and their solutions. All this we should

have done. Instead, we have failed miserably at getting even the barest glimmer of these ideas across to a general population.

All of this is particularly painful since methods have and are being developed to cope with every one of the seven items mentioned earlier that make today's world so very different. For instance, Hal Linstone of Portland State University has developed "the Multiple Perspective Concept" (MPC). MPC allows one to view any problem from several perspectives simultaneously: scientific/technical, individual, social/political. It thereby forces one to consider the simultaneous influence of all of these factors on any problem. It thereby gives a much more thorough and comprehensive way of viewing problems. Most desirable of all, the MPC is not so esoteric that it can't be generally taught.

My colleagues and I have worked on a method called Assumptional Analysis (AA). AA allows an analyst to raise and to answer two basic questions: Who are the multiple parties who affect and are affected by a particular problem? and, What do we know or have to assume about them so that a proposed solution will be satisfactory to them? AA as well thus forces analysts to think broadly about problems and solutions.

It is not that these two methods and others are perfect. They are not. For instance, in a country as large and as mobile as ours, no method will locate with absolute certainty or precision the single psychopath who is contemplating action against a brand name product like Tylenol or more recently Girl Scout cookies. No method can do this. In this sense, the complete prevention of all tragedies is an impossibility.

Anyone who contends otherwise is a charlatan. However that does not mean
that one can not think systematically about nearly every aspect connected
with the aforementioned items.

If both methods can not deliver perfection, what they can accomplish
is worth stating. If one can not pinpoint single individuals, one can
at least identify the broad kinds of individuals and their associated
characteristics who are most likely to engage in tragic actions against
corporations. Both methods can aid individuals in thinking about phenomena
in the A or "that's absurd" region. For instance, from a detailed study
that a colleague and I have conducted of such tragedies, we are convinced that
if corporations wish to grapple seriously with A-type phenomena then they
will have to understand how psychopaths think and they will have to learn
how to view their corporations from the vantage point of psychopaths.
They will have to learn to ask such admittedly unpalatable questions as,
"if I were a psychopath what would I attack, and why?"

Today's organizations are not set up to encourage such questions
or the type of thinking it requires. Most organizations and managers are
the prisoners of machine-age thinking more than they realize. They are
the prisoners of the most rigid either/or thinking. If they can't locate
instantly the single individual responsible for an impending tragedy,
then they argue they can't do anything. They are thereby the worst pris-
oners of what I call the zero-infinity mentality or complex: if one doesn't
have perfect (i.e., infinite) knowledge about a complex social system,
then one has zero or no knowledge. By such reasoning, they affirm how
much they are still under the grip of the machine age. There one

either had perfect, objective knowledge or no knowledge at all. Such a
concept of knowledge may have been appropriate for that era, but it is
disastrously inappropriate for ours. In ours, one has to learn to live
with and to make the best of incomplete, uncertain knowledge about complex
systems.

I don't believe the fundamental problem is the lack of new tools
for thinking about A-type phenomena but instead the extreme emotional
resistance to change and to the unlearning of old ways. Certainly the
first step is the admission and recognition that the world has changed
drastically. This requires that at the very least we acknowledge the existence
of A-type phenomena.

If organizations can do these things, then they can do a lot to cope
before, during, and after a tragedy strikes. To repeat, but first they
have to acknowledge the existence of such phenomena, and that it could happen
to them. Second, they need to hold special workshops and retreats with
their most senior executives, including their Chief Executive Officer (CEO).
Unless this is done the organization won't take it seriously. Third, such
workshops and retreats need to include simulations of emergencies and tragedies.
Fourth, thinking about tragedies or the unthinkable ought to be part of a
larger, ongoing systematic effort of strategic thinking about the whole of
an organization. I don't believe any organization ought to spend all its time
thinking about the worst that could happen to it although it ought to have
some people whose full-time job it is to do precisely this. Strategic
thinking in my mind encompasses the entire spectrum of phenomena from I
to A.   It includes the entire range of questions from "what businesses

are we in now; what businesses do we wish to be in ten years from now; what's the worst that could happen to us; and, how do all these questions impact on one another?"

In closing, I wish to state another set of nine assumptions which I think are more appropriate for our age:

(1) Some complex problems have no answer or solution to them what-soever. At the very least, they do not have a single, best answer that is recognized as such by all the various parties who are affected by the problem. In the cases where answers do exist, all complex problems have multiple answers or solutions to them. Furthermore, each of the multiple answers is generally good but along very different criteria. Further still, no single answer is equally good with respect to all criteria.

(2) There are no magic procedures or formulas for finding the answers to complex problems. It may be a delusion to believe that such formulas ever existed at all or that they were ever really ap-propriate for complex problems. There do exist however some general processes for illuminating the range of different multiple answers to complex problems.

(3) Given an information polluted environment, managers today can't even deal effectively with the increasing amounts of relevant information with which they are burdened. Thus, they certainly don't need to be burdened with irrelevant information. What they

really need is the absolute minimum, essential information to illuminate the broader dimensions of their jobs. In a word, they need less facts about specifics and more of an overall sense about the larger system in which they reside.

(4) There are no simple problems anymore--period! All problems that are truly problems are complex. They may start out seemingly simple but their complexity quickly emerges. The only things that are simple are exercises which are found at the end of most textbooks. These are simple only because of their artificial construction. As a result, they delude students and the general culture into falsely expecting all problems to be like this.

(5) Not only can complex problems not be broken down into a series of simpler problems, but increasingly, all complex problems affect or are part of one another. At a minimum, problems can not be considered separately from one another. They must be viewed against the total fabric of which they are all a part.

(6) The economic, scientific, and technical aspects of problems can no longer be clearly separated from the people and social aspects. They must be considered and dealt with together since they exist together. There are no scientific and technical problems which are free from significant people and social problems and vice versa. Every aspect of every problem impacts

every other problem and all its aspects.

(7)   There is no such thing--period!--as total objectivity. The

notion of a completely, unbiased, objective observer is an out-

moded concept from a simpler age. Every person starts from

personal and cultural assumptions and biases which influence

everything he does. Instead of pretending or wishing such

biases away, it would be better to understand how they influence

our handling of complex problems. But to understand them, one

first has to admit their existence.

It is not possible to separate reason from emotion be-

cause they do not exist apart from one another. They are not

two totally different things but instead two aspects of the

same thing. They are part of the total process that human

beings use to make sense of their world.

(8)   The world may still be orderly but not in the old sense of

the term. New worlds and new times require new concepts of

order if one is to make sense of them. Thus, it is not a case

of order versus no order or disorder. Man could not function

for one minute without order of some kind. So that is not the

real issue.

(9)   The terms "hard" and "soft" are not only outmoded but actually

dangerous in today's world. They shift discussion away from

what's truly important to a diverting side issue. Whether they

are called hard or soft is irrelevant when it comes to assessing the critical role that assumptions of all kinds play in today's world. Assumptions could be called "purple" for all that matter and it wouldn't change their importance one bit. What truly matters is to recognize that they are vitally important to assess whether the assessment can be conducted in terms of numbers or not.

Ian I. Mitroff teaches Organizational Behavior and Strategic Planning at the University of Southern California. This essay is taken from a forthcoming book with Ralph H. Kilmann, Corporate Tragedies, the Growing Intrusion of Evil into American Business, Praeger, New York, 1984, and a manuscript in preparation, Mindbreak, New Thinking for Turbulent Times.