HBR Classic

Paul R. Lawrence

How to deal with resistance to change

The real problem is not technical change but the human changes that often accompany technical innovations

Foreword

This "HBR Classic," the fourth in a series of articles from the past with retrospective commentary, was first published in the May-June 1954 issue of HBR. It has been used and reused by businessmen ever since; requests for reprints, for instance, have continued steadily to this day—evidence that the author's analysis of the problems and of how to deal with them continues to be valid. Mr. Lawrence is still associated with the Harvard Business School, where he is now Wallace Brett Donham Professor of Organizational Behavior. His commentary on the article appears on page 6.

One of the most baffling and recalcitrant of the problems which business executives face is employee resistance to change. Such resistance may take a number of forms—persistent reduction in output, increase in the number of "quits" and requests for transfer, chronic quarrels, sullen hostility, wildcat or slowdown strikes, and, of course, the expression of a lot of pseudological reasons why the change will not work. Even the more petty forms of this resistance can be troublesome.

All too often when executives encounter resistance to change, they "explain" it by quoting the cliché that "people resist change" and never look further. Yet changes must continually occur in industry. This applies with particular force to the all-important "little" changes that constantly take place—changes in work methods, in routine office procedures, in the location of a machine or a desk, in personnel assignments and job titles.

No one of these changes makes the headlines, but in total they account for much of our increase in productivity. They are not the spectacular once-in-a-lifetime technological revolutions that involve mass layoffs or the obsolescence of traditional skills, but they are vital to business progress.

Does it follow, therefore, that business management is forever saddled with the onerous job of "forcing" change down the throats of resistant people? My answer is *no*. It is the thesis of this article that people do *not* resist technical change as such and that most of the resistance which does occur is unnecessary. I shall discuss these points, among others:

1. A solution which has become increasingly popular for dealing with resistance to change is to get the people involved to "participate" in making the change. But as a practical matter "participation" as a device is not a good way for management to think about the problem. In fact, it may lead to trouble.

2. The key to the problem is to understand the true nature of resistance. Actually, what employees resist is usually not technical change but social change—the change in their human relationships that generally accompanies technical change.

3. Resistance is usually created because of certain blind spots and attitudes which staff special-

ists have as a result of their preoccupation with the technical aspects of new ideas.

4. Management can take concrete steps to deal constructively with these staff attitudes. The steps include emphasizing new standards of performance for staff specialists and encouraging them to think in different ways, as well as making use of the fact that signs of resistance can serve as a practical warning signal in directing and timing technological changes.

5. Top executives can also make their own efforts more effective at meetings of staff and operating groups where change is being discussed. They can do this by shifting their attention from the facts of schedules, technical details, work assignments, and so forth, to what the discussion of these items indicates in regard to developing resistance and receptiveness to change.

Let us begin by taking a look at some research into the nature of resistance to change. There are two studies in particular that I should like to discuss. They highlight contrasting ways of interpreting resistance to change and of coping with it in day-to-day administration.

Is participation enough?

The first study was conducted by Lester Coch and John R.P. French, Jr. in a clothing factory.[1] It deserves special comment because, it seems to me, it is the most systematic study of the phenomenon of resistance to change that has been made in a factory setting. To describe it briefly:

The two researchers worked with four different groups of factory operators who were being paid on a modified piece-rate basis. For each of these four groups a minor change in the work procedure was installed by a different method, and the results were carefully recorded to see what, if any, problems of resistance occurred. The four experimental groups were roughly matched with respect to efficiency ratings and degree of cohesiveness; in each group the proposed change modified the established work procedure to about the same degree.

The work change was introduced to the first group by what the researchers called a "no-participation" method. This small group of operators was called into a room where some staff people told the members that there was a need for a minor methods change in their work procedures. The staff people then explained the change to the operators in detail, and gave them the reasons for the change. The operators were then sent back to the job with instructions to work in accordance with the new method.

The second group of operators was introduced to the work change by a "participation-through-representation" method—a variation of the approach used with the third and fourth groups which turned out to be of little significance.

The third and fourth groups of operators were both introduced to the work change on a "total-participation" basis. All the operators in these groups met with the staff men concerned. The staff men dramatically demonstrated the need for cost reduction. A general agreement was reached that some savings could be effected. The groups then discussed how existing work methods could be improved and unnecessary operations eliminated. When the new work methods were agreed on, all the operators were trained in the new methods, and all were observed by the time-study men for purposes of establishing a new piece rate on the job.

Research findings: The researchers reported a marked contrast between the results achieved by the different methods of introducing this change:

▽ *No-participation group*—The most striking difference was between Group #1, the no-participation group, and Groups #3 and #4, the total-participation groups. The output of Group #1 dropped immediately to about two thirds of its previous output rate. The output rate stayed at about this level throughout the period of 30 days after the change was introduced. The researchers further reported:

"Resistance developed almost immediately after the change occurred. Marked expressions of aggression against management occurred, such as conflict with the methods engineer, . . . hostility toward the supervisor, deliberate restriction of production, and lack of cooperation with the supervisor. There were 17% quits in the first 40 days. Grievances were filed about piece rates;

1. See Lester Coch and John R.P. French, Jr., "Overcoming Resistance to Change," *Human Relations*, Vol. 1, No. 4, 1948, p. 512.

Retrospective commentary

In the 15 years since this article was published, we have seen a great deal of change in industry, but the human aspects of the topic do not seem very different. The human problems associated with change remain much the same even though our understanding of them and our methods for dealing with them have advanced.

The first of the two major themes of the article is that resistance to change does not arise because of technical factors per se but because of social and human considerations. This statement still seems to be true. There is, however, an implication in the article that the social and human costs of change, if recognized, can largely be avoided by thoughtful management effort. Today I am less sanguine about this.

It is true that these costs can be greatly reduced by conscious attention. Managements that have tried have made much progress during the past 15 years. Here are some examples of what has been done:

- Fewer people are now pushed out of the back doors of industry—embittered and "burned out" before their time.
- Fewer major strikes are the result of head-on clashes over new technology and its effects on jobs.
- Progress is being made in putting the needs of people into the design of new technological systems.
- Relevant inputs of ideas and opinions of people from all ranks are being solicited and used *before* (not after) plans for change are frozen.
- At the same time that well-established work groups are disrupted by technical imperatives, special efforts are made to help newly formed work groups evolve meaningful team relations quickly.
- Time and care have been taken to counsel individuals whose careers have to some degree been disrupted by change.

All of these ways of reducing the human costs of change have worked for the companies that have seriously applied them. Still, I am more aware than in 1954 of the limits of such approaches. They do not always enable management to prevent situations from developing in which some individuals win while others lose. The values lost as skills become obsolete cannot always be replaced. The company's earnings may go up but the percentage payouts from even an enlarged "pie" have to be recalculated, and then the relative rewards shift. In these situations enlightened problem solving will not completely displace old-fashioned bargaining, and better communication will only clarify the hard-core realities.

The second theme of the article deals with ways of improving the relations between groups in an organization—particularly when a staff group is initiating change in the work of an operating or line group. The gap that exists in outlook and orientation between specialized groups in industry has increased in the past 15 years, even as the number of such groups has continued to escalate. These larger gaps have in turn created ever more difficult problems of securing effective communication and problem solving between groups. Coordinating the groups is probably the number one problem of our modern corporations. So this second theme is hardly out-of-date.

Today, however, there is both more knowledge available about the problem than there was in 1954 and more sophisticated skill and attention being given to it. And there is increasing understanding of and respect for the necessity for differences between groups. There is less striving for consistency for its own sake. More managerial effort is being applied, in person and through impersonal systems, to bridge the gaps in understanding. While the conflicts between specialized groups are probably as intense now as ever, they are more frequently seen as task-related—that is, natural outgrowths of different jobs, skills, and approaches—rather than as redundant and related only to personality differences.

The major criticism that has been brought to my attention about the article is that it has damaged the useful concept of participation. Perhaps this is true. But the view of participation as a technique for securing compliance with a predetermined change was a widespread and seductive one in 1954—and it is not dead yet. Subsequent research has not altered the general conclusion that participation, to be of value, must be based on a search for ideas that are seen as truly relevant to the change under consideration. The shallow notion of participation, therefore, still needs to be debunked.

As a final thought, I now realize that the article implied that workers resist change while managers foster and implement change. Many of the changes of the intervening period, such as the computer revolution, have exposed the inadequacy of this assumption. It is difficult to find any managers today who do not at times feel greatly distressed because of changes, with their own resistance level running fairly high. We are all, at times, resistors as well as instigators of change. We are all involved on both sides of the process of adjusting to change.

In light of this, let me reemphasize the point that resistance to change is by itself neither good nor bad. Resistance may be soundly based or not. It is always, however, an important signal calling for further inquiry by management.

but when the rate was checked, it was found to be a little 'loose.' "

△ *Total-participation groups* — In contrast with this record, Groups #3 and #4 showed a smaller initial drop in output and a very rapid recovery not only to the previous production rate but to a rate that exceeded the previous rate. In these groups there were no signs of hostility toward the staff people or toward the supervisors, and there were no quits during the experimental period.

Appraisal of results: Without going into all the researchers' decisions based on these experiments, it can be fairly stated that they concluded that resistance to methods changes could be overcome by *getting the people involved in the change to participate in making it.*

This was a very useful study, but the results are likely to leave the manager of a factory still bothered by the question, "Where do we go from here?" The trouble centers around that word "participation." It is not a new word. It is seen often in management journals, heard often in management discussions. In fact, the idea that it is a good thing to get employee participation in making changes has become almost axiomatic in management circles.

But participation is not something that can be conjured up or created artificially. You obviously cannot buy it as you would buy a typewriter. You cannot hire industrial engineers and accountants and other staff people who have the ability "to get participation" built into them. It is doubtful how helpful it would be to call in a group of supervisors and staff men and exhort them, "Get in there and start participation."

Participation is a feeling on the part of people, not just the mechanical act of being called in to take part in discussions. Common sense would suggest that people are more likely to respond to the way they are customarily treated—say, as people whose opinions are respected because they themselves are respected for their own worth—rather than by the stratagem of being called to a meeting or being asked some carefully calculated questions. In fact, many supervisors and staff men have had some unhappy experiences with executives who have read about participation and have picked it up as a new psychological gimmick for getting other people to think they "want" to do as they are told—as a sure way to put the sugar coating on a bitter pill.

So there is still the problem of how to get this thing called participation. And, as a matter of fact, the question remains whether participation was the determining factor in the Coch and French experiment or whether there was something of deeper significance underlying it.

Resistance to what?

Now let us take a look at a second series of research findings about resistance to change. . . . While making some research observations in a factory manufacturing electronic products, a colleague and I had an opportunity to observe a number of incidents that for us threw new light on this matter of resistance to change.[2] One incident was particularly illuminating:

☐ We were observing the work of one of the industrial engineers and a production operator who had been assigned to work with the engineer on assembling and testing an experimental product that the engineer was developing. The engineer and the operator were in almost constant daily contact in their work. It was a common occurrence for the engineer to suggest an idea for some modification in a part of the new product; he would then discuss his idea with the operator and ask her to try out the change to see how it worked. It was also a common occurrence for the operator to get an idea as she assembled parts and to pass this idea on to the engineer, who would then consider it and, on occasion, ask the operator to try out the idea and see if it proved useful.

A typical exchange between these two people might run somewhat as follows:

Engineer: "I got to thinking last night about that difficulty we've been having on assembling the x part in the last few days. It occurred to me that we might get around that trouble if we washed the part in a cleaning solution just prior to assembling it."

Operator: "Well, that sounds to me like it's worth trying."

Engineer: "I'll get you some of the right kind of cleaning solution, and why don't you try doing that with about 50 parts and keep track of what happens."

Operator: "Sure, I'll keep track of it and let you know how it works."

With this episode in mind, let us take a look at a second episode involving the same production operator. One day we noticed another engineer approaching the production operator. We knew that this particular engineer had had no previous contact with the production operator. He had been asked to take a look at one specific problem on the new product because of his special technical qualifications. He had decided to make a change in one of the parts of the product to eliminate the problem, and he had prepared some of these parts using his new method. Here is what happened:

☐ He walked up to the production operator with the new parts in his hand and indicated to her by a gesture that he wanted her to try assembling some units using his new part. The operator picked up one of the parts and proceeded to assemble it. We noticed that she did not handle the part with her usual care. After she had assembled the product, she tested it and it failed to pass inspection. She turned to the new engineer and, with a triumphant air, said, "It doesn't work."

The new engineer indicated that she should try another part. She did so, and again it did not work. She then proceeded to assemble units using all of the new parts that were

2. For a complete report of the study, see Harriet O. Ronken and Paul R. Lawrence, *Administering Changes: A Case Study of Human Relations in a Factory* (Boston, Division of Research, Harvard Business School, 1952).

available. She handled each of them in an unusually rough manner. None of them worked. Again she turned to the engineer and said that the new parts did not work.

The engineer left, and later the operator, with evident satisfaction, commented to the original industrial engineer that the new engineer's idea was just no good.

Social change: What can we learn from these episodes? To begin, it will be useful for our purposes to think of change as having both a technical and a social aspect. The *technical* aspect of the change is the making of a measurable modification in the physical routines of the job. The *social* aspect of the change refers to the way those affected by it think it will alter their established relationships in the organization.

We can clarify this distinction by referring to the two foregoing episodes. In both of them, the technical aspects of the changes introduced were virtually identical: the operator was asked to use a slightly changed part in assembling the finished product. By contrast, the social aspects of the changes were quite different.

In the first episode, the interaction between the industrial engineer and the operator tended to sustain the give-and-take kind of relationship that these two people were accustomed to. The operator was used to being treated as a person with some valuable skills and knowledge and some sense of responsibility about her work; when the engineer approached her with his idea, she felt she was being dealt with in the usual way. But, in the second episode, the new engineer was introducing not only a technical change but also a change in the operator's customary way of relating herself to others in the organization. By his brusque manner and by his lack of any explanation, he led the operator to fear that her usual work relationships were being changed. And she just did not like the new way she was being treated.

The results of these two episodes were quite different also. In the first episode there were no symptoms of resistance to change, a very good chance that the experimental change would determine fairly whether a cleaning solution would improve product quality, and a willingness on the part of the operator to accept future changes when the industrial engineer suggested them. In the second episode, however, there were signs of resistance to change (the operator's careless handling of parts and her satisfaction in their failure to work), failure to prove whether the modified part was an improvement or not, and indications that the operator would resist any further changes by the engineer. We might summarize the two contrasting patterns of human behavior in the two episodes in graphic form; see *Exhibit I.*

Exhibit I. Two contrasting patterns of human behavior

	Change		
	Technical aspect	Social aspect	Results
Episode 1	Clean part prior to assembly	Sustaining the customary work relationship of operator	1. No resistance 2. Useful technical result 3. Readiness for more change
Episode 2	Use new part in assembly	Threatening the customary work relationship of operator	1. Signs of resistance 2. No useful technical result 3. Lack of readiness for more change

It is apparent from these two patterns that the variable which determines the result is the *social* aspect of the change. In other words, the operator did not resist the technical change as such but rather the accompanying change in her human relationships.

Confirmation: This conclusion is based on more than one case. Many other cases in our research project substantiate it. Furthermore, we can find confirmation in the research experience of Coch and French, even though they came out with a different interpretation.

Coch and French tell us in their report that the procedure used with Group #1, i.e., the no-participation group, was the usual one in the factory for introducing work changes. And yet they also tell us something about the customary treatment of the operators in their work life. For example, the company's labor relations policies are progressive, the company and the supervisors place a high value on fair and open dealings with the employees, and the employees are encouraged to take up their problems and grievances with management. Also, the operators are accustomed to measuring the success and failure of themselves as operators against the company's standard output figures.

Now compare these *customary* work relationships with the way the Group #1 operators were treated when they were introduced to this particular work change. There is quite a difference. When the management called them into the room for indoctrination, they were treated as if they had no useful knowledge of their own jobs. In effect, they were told that they were not the skilled and efficient operators they had thought they were, that they were doing the job inefficiently, and that some "outsider" (the staff expert) would now tell them how to do it right. How could they construe this experience *except* as a threatening change in their usual working relationship? It is the story of the

[Continued on page 166]

Keeping informed

mentation—shows promise of having greater operational value to marketing managers than the traditional techniques. Of major significance is the fact that the product segmentation approach shifts the primary marketing emphasis from "whom you reach" to "what characteristics you build into the product."

If there is an overall conclusion to be drawn from this review, it is that marketing managers and researchers may very well have heretofore been concentrating too literally on the consumer himself. The promising beginning of product segmentation appears to indicate not only that an understanding of the consumers' perception of his environment may be more helpful in predicting his behavior than is any measure of the consumer himself, but also that efforts in this area may mark a revolution in new product development.

HBR Classic

Continued from page 12

second episode in our research case all over again. The results were also the same, with signs of resistance, persistently low output, and so on.

Now consider experimental Groups #3 and #4, i.e., the total-participation groups. Coch and French referred to management's approach in their case as a "new" method of introducing change; but, from the point of view of the *operators* it must not have seemed new at all. It was simply a continuation of the way they were ordinarily dealt with in the course of their regular work. And what happened? The results—reception to change, technical improvement, better performance—were much like those reported in the first episode between the operator and the industrial engineer.

So the research data of Coch and French tend to confirm the conclusion that the nature and size of the technical aspect of the change does not determine the presence or absence of resistance nearly so much as does the social aspect of the change.

Roots of trouble

The significance of these research findings, from management's point of view, is that executives and staff experts need not expertness in using the devices of participation but a real understanding, in depth and detail, of the specific social arrangements that will be sustained or threatened by the change or by the way in which it is introduced.

These observations check with everyday management experience in industry. When we stop to think about it, we know that many changes occur in our factories without a bit of resistance. We know that people who are working closely with one another continually swap ideas about short cuts and minor changes in procedure that are adopted so easily and naturally that we seldom notice them or even think of them as change. The point is that because these people work so closely with one another, they intuitively understand and take account of the existing social arrangements for work and so feel no threat to themselves in such everyday changes.

By contrast, management actions leading to what we commonly label "change" are usually initiated outside the small work group by staff people. These are the changes that we notice and the ones that most frequently bring on symptoms of resistance. By the very nature of their work, most of our staff specialists in industry do not have the intimate contact with operating groups that allows them to acquire an intuitive understanding of the complex social arrangements which their ideas may affect. Neither do our staff specialists always have the day-to-day dealings with operating people that lead them to develop a natural respect for the knowledge and skill of these people. As a result, all too often the men behave in a way that threatens and disrupts the established social relationships. And the tragedy is that so many of these upsets are inadvertent and unnecessary.

Yet industry must have its specialists—not only many kinds of engineering specialists (product, process, maintenance, quality, and safety engineers) but also cost accountants, production schedulers, purchasing agents, and personnel men. Must top management therefore reconcile itself to continual resistance to change, or can it take constructive action to meet the problem?

I believe that our research in various factory situations indicates why resistance to change occurs and what management can do about it. Let us take the "why" factors first.

Self-preoccupation: All too frequently we see staff specialists who bring to their work certain blind spots that get them into trouble when they initiate change with operating people. One such blind spot is "self-preoccupation." The staff man gets so engrossed in the technology of the change he is interested in promoting that he becomes wholly oblivious to different kinds of things that may be bothering people. Here are two examples:

☐ In one situation the staff people introduced, with the best of intentions, a technological change which inadvertently deprived a number of skilled operators of much of the satisfaction that they were finding in their work. Among other things, the change meant that, whereas formerly the output of each operator had been placed beside his work position where it could be viewed and appreciated by him and by others, it was now being carried away immediately from the work position. The workmen did not like this.

The sad part of it was that there was no compelling cost or technical reason why the output could not be placed beside the work position as it had been formerly. But the staff people who had introduced the change were so literal-minded about their ideas that when they heard complaints on the changes from the operators, they could not comprehend what the trouble was. Instead, they began repeating all the logical arguments why the change made sense from a cost standpoint. The final result here was a chronic restriction of output and persistent hostility on the part of the operators.

HBR Classic

☐ An industrial engineer undertook to introduce some methods changes in one department with the notion firmly in mind that this assignment presented him with an opportunity to "prove" to higher management the value of his function. He became so preoccupied with his personal desire to make a name for his particular techniques that he failed to pay any attention to some fairly obvious and practical considerations which the operating people were calling to his attention but which did not show up in his time-study techniques. As could be expected, resistance quickly developed to all his ideas, and the only "name" that he finally won for his techniques was a black one.

Obviously, in both of these situations the staff specialists involved did not take into account the social aspects of the change they were introducing. For different reasons they got so preoccupied with the technical aspects of the change that they literally could not see or understand what all the fuss was about.

We may sometimes wish that the validity of the technical aspect of the change were the sole determinant of its acceptability. But the fact remains that the social aspect is what determines the presence or absence of resistance. Just as ignoring this fact is the sure way to trouble, so taking advantage of it can lead to positive results. We must not forget that these same social arrangements which at times seem so bothersome are essential for the performance of work. Without a network of established social relationships a factory would be populated with a collection of people who had no idea of how to work with one another in an organized fashion. By working *with* this network instead of *against* it, management's staff representatives can give new technological ideas a better chance of acceptance.

Know-how of operators overlooked: Another blind spot of many staff specialists is to the strengths as well as to the weaknesses of firsthand production experience They do not recognize that the production foreman and the production operator are in their own way specialists themselves—specialists in actual experience with production problems. This point should be obvious, but it is amazing how many staff specialists fail to appreciate the fact that even though they themselves may have a superior knowledge of the technology of the production process involved, the foreman or the operators may have a more practical understanding of how to get daily production out of a group of men and machines.

The experience of the operating people frequently equips them to be of real help to staff specialists on at least two counts: (1) The operating people are often able to spot practical production difficulties in the ideas of the specialists—and iron out those difficulties before it is too late; (2) the operating people are often able to take advantage of their intimate acquaintance with the existing social arrangements for getting work done. If given a chance, they can use this kind of knowledge to help detect those parts of the change that will have undesirable social consequences. The staff experts can then go to work on ways to avoid the trouble area without materially affecting the technical worth of the change.

Further, some staff specialists have yet to learn the truth that, even after the plans for a change have been carefully made, it takes *time* to put the change successfully into production use. Time is necessary even though there may be no resistance to the change itself. The operators must develop the skill needed to use new methods and new equipment efficiently; there are always bugs to be taken out of a new method or piece of equipment even with the best of engineering. When a staff man begins to lose his patience with the amount of time that these steps take, the people he is working with will begin to feel that he is pushing them; *this* amounts to a change in their customary work relationships, and resistance will start building up where there was none before.

The situation is aggravated if the

staff man mistakenly accuses the operators of resisting the idea of the change, for there are few things that irritate people more than to be blamed for resisting change when actually they are doing their best to learn a difficult new procedure.

Management action

Many of the problems of resistance to change arise around certain kinds of *attitudes* that staff men are liable to develop about their jobs and their own ideas for introducing change. Fortunately, management can influence these attitudes and thus deal with the problems at their source.

Broadening staff interests: It is fairly common for a staff man to work so hard on one of his ideas for change that he comes to identify himself with it. This is fine for the organization when he is working on the idea by himself or with his immediate colleagues; the idea becomes "his baby," and the company benefits from his complete devotion to his work.

But when he goes to some group of operating people to introduce a change, his very identification with his ideas tends to make him unreceptive to any suggestions for modification. He just does not feel like letting anyone else tamper with his pet ideas. It is easy to see, of course, how this attitude is interpreted by the operating people as a lack of respect for their suggestions.

This problem of the staff man's extreme identification with his work is one which, to some extent, can only be cured by time. But here are four suggestions for speeding up the process:

1. The manager can often, with wise timing, encourage the staff man's interest in a different project that is just starting.

2. The manager can also, by his "coaching" as well as by example, prod the staff man to develop a healthier respect for the contributions he can receive from operating people; success in this area would, of course, virtually solve the problem.

3. It also helps if the staff man can be guided to recognize that the satis-

faction he derives from being productive and creative is the same satisfaction he denies the operating people by his behavior toward them. Experience shows that staff people can sometimes be stimulated by the thought of finding satisfaction in sharing with others in the organization the pleasures of being creative.

4. Sometimes, too, the staff man can be led to see that winning acceptance of his ideas through better understanding and handling of human beings is just as challenging and rewarding as giving birth to an idea.

Using understandable terms: One of the problems that must be overcome arises from the fact that the typical staff man is likely to have the attitude that the reasons why he is recommending any given change may be so complicated and specialized that it is impossible to explain them to operating people. It may be true that the operating people would find it next to impossible to understand some of the staff man's analytical techniques, but this does not keep them from coming to the conclusion that the staff specialist is trying to razzle-dazzle them with tricky figures and formulas—insulting their intelligence—if he does not strive to his utmost to translate his ideas into terms understandable to them. The following case illustrates the importance of this point:

☐ A staff specialist was temporarily successful in "selling" a change based on a complicated mathematical formula to a foreman who really did not understand it. The whole thing backfired, however, when the foreman tried to sell it to his operating people. They asked him a couple of sharp questions that he could not answer. His embarrassment about this led him to resent and resist the change so much that eventually the whole proposition fell through. This was unfortunate in terms not only of human relations but also of technological progress in the plant.

There are some very good reasons, both technical and social, why the staff man should be interested in working with the operating people until his recommendations make "sense." (This does not mean that the operating people need to understand the recommendations in quite the same way or in the same detail that the staff man does, but that they should be able to visualize the recommendations in terms of their job experiences.) Failure of the staff man to provide an adequate explanation is likely to mean that a job the operators had formerly performed with understanding and satisfaction will now be performed without understanding and with less satisfaction.

This loss of satisfaction not only concerns the individual involved but also is significant from the standpoint of the company which is trying to get maximum productivity from the operating people. A person who does not have a feeling of comprehension of what he is doing is denied the opportunity to exercise that uniquely human ability—the ability to use informed and intelligent judgment on what he does. If the staff man leaves the operating people with a sense of confusion, they will also be left unhappy and less productive.

Top line and staff executives responsible for the operation should make it a point, therefore, to know how the staff man goes about installing a change. They can do this by asking discerning questions when he reports to them, listening closely to reports of employee reaction, and, if they have the opportunity, actually watching the staff man at work. At times they may have to take such drastic action as insisting that the time of installation of a proposed change be postponed until the operators are ready for it. But, for the most part, straightforward discussions with the staff man in terms of what they think of his approach should help him, over a period of time, to learn what is expected of him in his relationships with operating personnel.

New look at resistance: Another attitude that gets staff men into trouble is the *expectation* that all the people involved will resist the change. It is curious but true that the staff man who goes into his job with the conviction that people are going to resist any idea he presents with blind stubbornness is likely to find them responding just the way he thinks they will. The process is clear: whenever he treats the people who are supposed to buy his ideas as if they were bullheaded, he changes the way they are used to being treated; and they *will* be bullheaded in resisting *that* change!

I think that the staff man—and management in general—will do better to look at it this way: When resistance *does* appear, it should not be thought of as something to be *overcome*. Instead, it can best be thought of as a useful red flag—a signal that something is going wrong. To use a rough analogy, signs of resistance in a social organization are useful in the same way that pain is useful to the body as a signal that some bodily functions are getting out of adjustment.

The resistance, like the pain, does not tell what is wrong but only that something *is* wrong. And it makes no more sense to try to overcome such resistance than it does to take a pain killer without diagnosing the bodily ailment. Therefore, when resistance appears, it is time to listen carefully to find out what the trouble is. What is needed is not a long harangue on the logics of the new recommendations but a careful exploration of the difficulty.

It may happen that the problem is some technical imperfection in the change that can be readily corrected. More than likely, it will turn out that the change is threatening and upsetting some of the established social arrangements for doing work. Whether the trouble is easy or difficult to correct, management will at least know what it is dealing with.

New job definition: Finally, some staff specialists get themselves in trouble because they assume they have the answer in the thought that people will accept a change when they have participated in making it. For example:

☐ In one plant we visited, an engi-

neer confided to us (obviously because we, as researchers on human relations, were interested in psychological gimmicks!) that he was going to put across a proposed production layout change of his by inserting in it a rather obvious error, which others could then suggest should be corrected. We attended the meeting where this stunt was performed, and superficially it worked. Somebody caught the error, proposed that it be corrected, and our engineer immediately "bought" the suggestion as a very worthwhile one and made the change. The group then seemed to "buy" his entire layout proposal.

It looked like an effective technique—oh, so easy—until later, when we became better acquainted with the people in the plant. Then we found out that many of the engineer's colleagues considered him a phony and did not trust him. The resistance they put up to his ideas was very subtle, yet even more real and difficult for management to deal with.

Participation will never work so long as it is treated as a device to get somebody else to do what you want him to. Real participation is based on respect. And respect is not acquired by just trying; it is acquired when the staff man faces the reality that he needs the contributions of the operating people.

If the staff man defines his job as not just generating ideas but also getting those ideas into practical operation, he will recognize his real dependence on the contributions of the operating people. He will ask them for ideas and suggestions, not in a backhanded way to get compliance, but in a straightforward way to get some good ideas and avoid some unnecessary mistakes. By this process he will be treating the operating people in such a way that his own behavior will not be perceived as a threat to their customary work relationships. It will be possible to discuss, and accept or reject, the ideas on their own merit.

The staff specialist who looks at the process of introducing change and at resistance to change in the manner outlined in the preceding pages may not be hailed as a genius, but he can be counted on in installing a steady flow of technical changes that will cut costs and improve quality without upsetting the organization.

Role of the administrator

Now what about the way the top executive goes about his *own* job as it involves the introduction of change and problems of resistance?

One of the most important things he can do, of course, is to deal with staff people in much the same way that he wants them to deal with the operators. He must realize that staff people resist social change, too. (This means, among other things, that he should not prescribe particular rules to them on the basis of this article!)

But most important, I think, is the way the administrator conceives of his job in coordinating the work of the different staff and line groups involved in a change. Does he think of his duties *primarily* as checking up, delegating and following through, applying pressure when performance fails to measure up? Or does he think of them *primarily* as facilitating communication and understanding between people with different points of view—for example, between a staff engineering group and a production group who do not see eye to eye on a change they are both involved in? An analysis of management's actual experience—or, at least, that part of it which has been covered by our research—points to the latter as the more effective concept of administration.

I do not mean that the executive should spend his time with the different people concerned discussing the human problems of change as such. He *should* discuss schedules, technical details, work assignments, and so forth. But he should also be watching closely for the messages that are passing back and forth as people discuss these topics. He will find that people—himself as well as others—are always implicitly asking and making answers to questions like: "How will he accept criticism?"

HBR Classic

"How much can I afford to tell him?" "Does he really get my point?" "Is he playing games?" The answers to such questions determine the degree of candor and the amount of understanding between the people involved.

When the administrator concerns himself with these problems and acts to facilitate understanding, there will be less logrolling and more sense of common purpose, fewer words and better understanding, less anxiety and more acceptance of criticism, less griping and more attention to specific problems—in short, better performance in putting new ideas for technological change into effect.

Thinking ahead

Continued from page 28

ment information systems because they typically include only cost-displacement savings and ignore the value of the new information which, when properly used, opens new business opportunities and allows operating economies. Significant savings in both monetary and manpower resources can be realized in marketing, distribution, processing, design, and drafting. These are often the major reasons for going into modern ADP systems, and they must be considered.

Second, there are no simple rules of thumb for a company's ADP expenditures. These should be geared, not to company size or how much the competitors are spending, but to the benefits to be derived in each specific case. These benefits often accrue from the value of the information to be supplied by the systems as well as from direct savings in data processing operations.

Third, let me close with the most basic point of all. For 15 years I have advocated bringing knowledge of the potential business uses of computers to management. It is now time to apply management's knowledge of business more fully to the planning and evaluation of computers. In allowing technicians to set goals for ADP activity, management has not been facing up to its responsibilities—nor has it been as astute as it might have been in seizing the many business opportunities that could have been opened through entrepreneurial use of ADP.

Most technicians cannot be expected to understand the needs or the opportunities of the corporation well enough to establish goals for computer systems. Management itself must take the trouble to understand what new technologies make possible and what is necessary in order to apply them effectively and imaginatively. It must, if you will, "get its hands dirty" in this field. In addition, meaningful dialogues must be conducted between senior technologists and senior managers. These dialogues could be conducted in different ways, and they would be valuable in terms of both education and communication.

The questions described in this article are crucial ones. Top management cannot relegate them to experts—unless it wants to relegate part of the responsibility for the future of business and computers.

Letters to the editor

Continued from page 40

central corporate board; in this role he learns to use its management services to the fullest extent and develop his own team. The units retain their corporate identities for control purposes.

Economic Opportunity Town (EcOp Town, as we call it) thus provides a growth mechanism capable of supplemental communications among autonomous operations. Also—and perhaps most important—it provides job-growth ladders, since openings are posted in all units.

The originating management team members continue on their "establishment" jobs, serving EcOp Town on Saturday mornings and at ad hoc work sessions. Currently the team is managing the newly formed Hough Manufacturing Company and holding panel sessions for other programs. The team's capability is already severely stretched, and this has the merit of forcing each unit to take