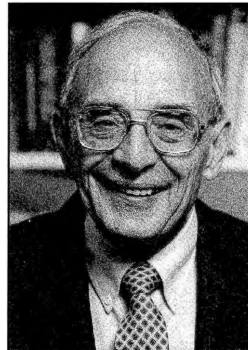


If a policy is a solution, “actionable knowledge is the actual behavior required to implement the solution.”



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Chris Argyris

ORGANIZATIONAL BEHAVIOR

Production of Knowledge for Action in the World of Practice

SOCIAL SCIENTISTS HAVE BEEN INTERESTED FOR MANY years in producing knowledge that is relevant to everyday life. In my field it is called knowledge that has “external” validity, relevance beyond the context in which the knowledge was obtained (Campbell and Stanley, 1963). Yet a scholarly reviewer, in a scholarly journal, recently concluded that the breach between social scientists and citizens, created by the nonapplicability of the knowledge produced by the scientists, is growing larger. He notes that Representative George E. Brown, Jr., who is recognized as one of science’s great champions, has written a report that warns scholars about continuing their apparent sense of unconcern about the breach (Johnson, 1993).

I believe that Johnson and Brown are correct. Scholars, by and large, espouse relevance and actionability but then pay little attention to these features when they conduct their research. For example, although most books and articles on research in organizational behavior discuss relevance (usually in a final chapter), none, that I could discover, give actionability the same status as validity. The advice they give to researchers assumes that with decent validity, and with the accumulation of knowledge, actionability will follow. This assumption, in turn, contains a more questionable one, namely, that there will be a relatively seamless relationship between the causality that researchers used to produce their knowledge and the causality the practitioners

will use to implement that knowledge. The seamless quality is dictated by the fact that in order for practitioners to implement scientific propositions they will have to use the concept of causality that the researchers used to produce the propositions.

In order to illustrate this claim, I begin with a few words on the meaning of actionable knowledge in the domain of practice to which I refer. The domain is understanding and solving complex problems in organizations (technical or human) that are embarrassing or threatening. I select this domain because that is where practitioners need help the most. They learn how to solve simple, nonembarrassing, nonthreatening problems as a matter of course.

Actionable knowledge is that knowledge that practitioners use in everyday life to produce their intended consequences. This means that I am focusing on human behavior in organizations where human beings are interacting, doing things to and with each other, attempting to influence, striving to govern the formal and informal features of organizations. It may be helpful to think of discovering problems, inventing solutions, producing or implementing the solutions, and evaluating the effectiveness of the action. Actionable knowledge is not a policy; a policy is a solution. Actionable knowledge is the actual behavior required to implement the solution. The test of actionable knowledge is that, if implemented correctly, it will lead to the consequences that it specifies. The test of whether individuals (or an organization) have actionable

knowledge is whether they can produce the consequences that they intend by following the dictates of that knowledge.

Theories-in-Use in Everyday Life

The information science revolution combined with new concepts from clinical and social psychology suggests the following way to conceive of human nature. Human beings learn and store in their heads, early in life, master programs to design their actions and to implement their designs.

The master design to deal with embarrassing and threatening issues has been modeled. The model (called Model I) claims to capture the theories of action that people use (hence their theories-in-use) as compared with those that they espouse. According to Model I, a theory-in-use contains a set of governing values. They are to (1) unilaterally control the situation you are in, (2) strive to win and not to lose, (3) suppress negative feelings, and (4) be rational (Argyris and Schon, 1974). This model is essentially a limited learning model. It requires the recipients to be submissive and dependent. When they respond, they too will use the same governing values. Defensiveness will escalate as well as misunderstanding and errors. The results will be self-fueling processes that are counterproductive to learning (i.e., to detecting and correcting error).

Moreover, given the defensiveness in the relationships, the actors are not likely to receive valid feedback or to trust the feedback. They will therefore be unaware of their responsibility in causing these self-fueling processes. They will also hold others responsible because they can point to the others' defensive behavior.

In our research, we find that most human beings are unaware of the discrepancy between their theory-in-use and their espoused theory, especially when they are actually producing it. For example, many individuals espouse caring and support. They implement these ideas,

very often, by easing-in or being indirect and by covering up the easing-in. The cover-up is sensed by the receivers, which leads them to mistrust what is going on. They too cover up their doubts. The first individual may then infer that the other is covering up. Of course, that inference is covered up. All this occurs rather naturally, spontaneously. The actions are taken for granted and hence there is little awareness of them while they are being produced. This, in turn, makes it more likely that they will blame others if something appears to be going wrong. This triggers and reinforces the defensive self-fueling processes.

Organizational Defensive Routines

Organizations populated with individuals using Model I theories-in-use create organizational cultures that reward and reinforce Model I. Organizations soon become limited learning systems in dealing with problems that are embarrassing or threatening (Argyris and Schon, 1978).

The most powerful organizational features that produce limited learning are organizational defensive routines. Organizational defensive routines are any actions, policies, or procedures designed to prevent the players from experiencing embarrassment or threat and, at the same time, to prevent individuals from discovering the causes of the embarrassment or threat. Organizational defenses are anti-learning and overprotective.

Mixed messages are an example of defensive routines. "Mary, you run this department but check with Joe when you make tough decisions." "Bill, be creative and innovative but be careful."

The theory-in-use behind all mixed messages contains the following logic and rules for implementing them: Communicate a message that is mixed. Act as if the message is not mixed. Make the first two rules undiscussable. Make the undiscussability also undiscussable (Argyris, 1990). For example, it is not likely that someone will say that he or she is about to deceive, about to manipulate, about to distort because that makes them vulnerable to the charge of acting unethically. Moreover, to admit and then to deceive is not to deceive; to admit and

then to manipulate is to reduce the likely effectiveness of manipulation; to admit and then distort is to tell the truth.

The most powerful consequences of defensive theories-in-use and organizational defensive routines are that they create double binds. If individuals tell the truth, they are likely to open up an organizational can of worms. If they cover up and cover up that they are covering up, they are aware that they are living a life of dishonesty. Whistle-blowers are often in that position.

Most human beings whom we have studied feel helpless in such a context. They eventually develop a sense of cynicism about organizations ever changing. Soon they distance themselves from their “dishonest” going-along behavior, which in turn distances them from their fair share of responsibility for organizational health. They learn to live with these second-order consequences by holding organizations responsible. Hence, we now have an additional and massive set of self-fueling processes.

Advice to Overcome Defensive Routines

As I reviewed the advice of scholars who described organizational defensive routines on how to overcome them, I found little that was actionable. For example, in the government sector the readers were advised to persuade effectively, to invoke national interest, to negotiate, to treat symptoms because they will relieve pain. If such tactics do not work then strengthen the controls, provide monetary incentive and reduce red tape, decentralize, and deregulate. I submit that the advice to reduce red tape is not news; that the issue for the actors is how to follow the advice, and how to make sure it leads to positive consequences. The literature ignores this problem of implementation. Hence the advice is not actionable (Argyris, 1993).

The same is true for the literature from the private sector. For example, executives advise: get good people, use a disciplined approach, generate collective responsibility, focus on the future, be polite but candid, question intensely. Again, this type of advice is not news, nor is it actionable.

There is another feature of the advice in the literature that is even more troublesome. The advice actually reinforces the very defensive routes that cause the problems, yet the advisers are apparently unaware that this is happening.

For example, a CEO of one of America's largest corporations described how he sought honest feedback from his immediate subordinates. Periodically, he would assign as chair of a meeting an executive whom every one of his subordinates trusted. The executive then gave the CEO feedback without violating any confidence. This strategy assumes that the subordinates are not able to be candid with their CEO; it assumes further that the first assumption should not be tested with the subordinates. Finally, it assumes that all this should be done by covering up the defenses that make all this necessary.

A CEO advises other executives to build trust. He tells of a colleague who often confided in him as to how “lousy” he thought one of his associates was. The CEO admitted that he wondered what that colleague might say about him to others. The CEO mistrusted the colleague but never told him so; indeed he covered up his feelings of mistrust.

Such actions are sanctioned by organizational defensive routines. Once taken, they feed back to reinforce the defensive routines. We are back to the self-sealing, self-reinforcing processes described above.

Model I and Rigorous Research Methods

Why is it that scholars describe organizational defensive routines in business, governmental, and educational organizations, decrying their counterproductive consequences, yet, they end up providing advice that is either not actionable or consistent with the very defensive routines that cause the problems?

One answer is that the scholars are also human beings and their personal theories-in-use are also consistent with Model I. When they

are acting in everyday life they too create defensive routines that inhibit reflecting on their actions as well as their community norms. If one analyzes the actions of scholars as they compete against each other (Watson, 1969) and as they coerce conformity upon those who work with them (Mitroff, 1974), it is not difficult to see how Kuhn (1962) arrived at the conclusion that scholarly communities were loaded with community defensive routines that were protective of those in power and inhibited genuine confrontation of new ideas.

There is a second answer to the question. Methods of scientific research are theories of action. If one examines the theory-in-use that is the basis for rigorous (positivistic) research, be it experiments, questionnaires, or interviews, one discovers that it is consistent with Model I. For example, the researchers strive to be in unilateral control over the research in order to maximize their winning and minimize losing. They systematically cover up their intentions and objectives from their subjects in order to reduce the subjects' contamination of their actions or replies.

Scientists, while in the process of research, also cover up that they are covering up. This tends to lead them to produce generalizations that are limited to Model I action strategies. For example, the leading research on mass communication advises the practitioners to give several sides of an issue if the audience is educated and sophisticated. It also advises giving only one view of the issue if the audience is not sophisticated. In both cases, the advice will work only if the practitioners cover up that they are following either strategy. The advice will not work if, for example, you tell the audience that the reason they are getting one view is that they are judged to be unsophisticated. A review of the literature indicates that this is not a rare example; indeed, it is an exemplar of the advice in the current literature (Argyris, 1980).

There is another strategy of rigorous research methodology that unrealistically reinforces the limited learning features of Model I. Most scholars strive to describe and understand their chosen universe. They

are committed to the study of what is, not what might be. The latter is normative research and not typically a central feature of basic research.

There are two ways in which the emphasis upon descriptive research is limiting. If the universe is dominated by defensive theories-in-use and organizational defensive routines, then careful description will produce only countless descriptions of individual and organizational defensive routines (as was found in the literature review cited earlier). Social science researchers become the servants of the status quo because they do not conduct research on changing defensive routines. They do not conduct such research because to execute it requires a theory of a new type of organization (a normative position) and specification of how to get from here to there (an intervention position, which requires them to go beyond being descriptive).

In order for such research to be produced, it would have to be research that studies, or more likely creates, rare events. The events are rare in the sense that researchers would be producing organizational phenomena that do not presently exist. In order to do that, they would have to develop normative views of reality—views of what the world ought to be.

The second way in which the research can be self-limiting is related to the concepts of rigor used by social scientists to produce valid knowledge. These concepts do not produce user-friendly knowledge. In order for knowledge to be user-friendly it must involve concepts of causality, concepts of implementation, and concepts of assessment that are usable by practitioners in their everyday life contexts. When this requirement is not met, the breach between knowledge and action, even in the best studies, is large. For example, let us take the classic study of frustration and regression by Barker et al. (1941).

1. The researchers brought children into an experimental situation without briefing them about the experiment. They acted in accordance with good practice by keeping secret the "experimental manipulation," namely, frustration. Nor did children make an informed decision to participate (although I doubt any were coerced if they did not wish to participate).

2. They created an unambiguous situation of frustration. They got the children to play with and become attached to some toys. Then they placed a physical barrier between the children and the toys, thereby "causing" frustration.
3. They had several observers behind one-way-vision glass scoring the actions of the children. They used instruments that were pretested.
4. They maintained the barrier long enough to collect observations that could be used to test their hypotheses rigorously. They controlled the time perspective of the children and the experiment.
5. The results led to the conclusion that mild frustration could lead to creative behavior. Beyond that point the children regressed. Regression led to more primitive behaviors including aggression.

Now let us turn to using this knowledge in real life. It is, I believe, clearly applicable. For example, leaders can be taught that if they frustrate people, the latter will regress and a likely consequence is that they will become angry and aggressive.

How does a leader translate this applicable knowledge into actionable knowledge? For example, a leader goes into a meeting to allocate scarce financial resources. He wants to do it fairly, in line with the objectives of the organization as a whole and not in line with the parochial views of the different subordinates. He also wants to use the opportunity to generate internal commitment on the part of the subordinates to the final results so that the likelihood of effective implementation is increased. He knows that he must be careful to minimize frustration.

How does he find out what sort of impact he is having? One way is to ask the individuals. But doing so may be playing it safe. Another way is to ask them to complete a written instrument. But doing so might frustrate the people more, especially those who believe they are "winning," and many see the filling out of forms as a diversion away from progress. He might use the observational instruments the researchers used by having an observer present. But how would the observer feed back the data? Would he give it only to the leader? Would

he include the subordinates? Could not the feedback exacerbate the feelings of frustration for some? If so, how would he find out if the frustration is increasing?

How would the manager strive not to create frustration that is as unambiguously clear as the physical barrier was for the children? Or, what behavior might lead to frustration even though the manager wishes to prevent this from occurring? For example, the manager will have to deny some requests. But how unequivocally clear must the denial be? If she did it with anger, it could lead the subordinates to hold her responsible for being ruthless and insensitive, as well as unilateral. Would not such feelings have an impact on the feelings of frustration? For example, what if the subordinates said privately to themselves, "If you're so sure of yourself, you take responsibility for the consequences," and then psychologically withdrew, but covered it up. Such withdrawal could ameliorate the feelings of frustration.

All these features indicate a relationship between the researcher and the subjects that is consistent with Model I. The moment the practitioners attempted to *create* these conditions in their context, they would have to create relationships that are consistent with Model I. At that point they would be reinforcing the status quo. Moreover, their actions may be seen as disingenuous and gimmicky, if they say they wish to reduce frustration in order to insure openness, trust, and empowerment.

What Can Be Done

Producing knowledge about dealing with embarrassing and threatening problems in organizations is not an easy task. It requires finding ways to create rare events that in everyday life are often viewed as idealistic or even dangerous. In order to do so, we need to educate human beings in theories-in-use that discourage defensiveness and encourage learning. We also need to create organizations that not only reduce their defensive routines but reward change in the underlying

governing values and policies. We also require a theory of intervention—how to get from here to there. Finally, we require research methods that do not compromise validity and generalizability yet overcome some of the self-limiting features around actionability described above.

A master program has been developed that, when it becomes a part of the actors' theories-in-use, will lead to a reduction of the defensiveness of Model I and facilitate underlying learning and change. The governing values of this theory-in-use (Model II) are valid information, informed choice, and internal commitment to monitoring the effectiveness of one's actions. Model II, when used competently, reduces organizational defenses, which in turn greatly deepens the learning that occurs in organizations around embarrassing and threatening problems (Argyris and Schon, 1974, 1978).

A theory of intervention is now available to get us from here to there. This theory of intervention uses a research methodology that values generalizability and validity but gives actionability an equal status (Argyris, 1980, 1993).

The concepts and skills around discovery, invention, production, and evaluation that are used in the research interventions will be the same skills that the researchers will teach the practitioners. Practitioners now become implementers of the concepts and, at the same time, the implementation will become an occasion for the test of these skills that are derivable from the theory.

For example, a group of directors of a consulting firm wanted to make their organization truly, and persistently, a learning organization. Yet, as they observed their own actions, they realized that they were helping to create the very organizational defenses that they abhorred. They invited me to help them change this situation (Argyris, 1993).

The first step was to observe them in action, especially when they were dealing with problems that involved embarrassment or threat.

The concepts of Model I and of organizational defensive routines provided the basic framework for the diagnosis. I developed an action map of the individual, group, intergroup, and organizational defenses that caused such activities as politics at the level of the directors and the negative consequences that the politics had on creating a genuinely learning organization.

The second step was to feed back the map to assess the extent to which the directors would confirm it. The directors made a few changes and then confirmed the map. Some expressed bewilderment about how they could alter their actions in order to change the map. Others maintained that now that they had a map of the causal factors they should be able to change the map. This created a dialogue that when analyzed (the sessions were recorded) showed that they were creating the dysfunctional features of the map.

The third step was to provide them with learning seminars to learn Model II governing values and actions and make them a part of Model II theory-in-use. (They could still use Model I for the routine, nonthreatening issues.) The instructional vehicle for the seminar was a case method designed to diagnose each director's theory-in-use and to provide a realistic basis for changing it. The discussion was organized around the cases. Each participant led discussions of his case. At the same time, I helped the group to focus on the way all of them were inquiring. They not only saw that their cases were Model I, but they saw that their advice to each other on how to reduce the Model I features was also consistent with Model I.

The way out of this dilemma was practice. The seminars provided the practice by using the cases the directors wrote. The participants began to see how to redesign their actions. They tested their designs with each other. In learning from each other, they obtained undeniable evidence that their comrades were not as antilearning-oriented as each director thought was the case. Otherwise they would have produced the bypasses, cover-ups, and undiscussables that they illustrated in their cases and during the early discussions.

The fourth step was more practice but in everyday organizational settings. For example, there was a hot discussion on ownership in

which all directors participated. There were two-person discussions around issues of assignment to clients, the staffing of case teams, the defensiveness of younger consultants, and who gets promoted and why.

All these sessions were recorded. The respective participants found the transcripts very helpful in reviewing their actions. The researchers used the transcripts to evaluate evidence of change as well as to design future interventions. We could, for example, quantify the behavioral changes from Model I to Model II and observe the consequences. One of the most powerfully documented results was that all the problems that the directors described, at the outset, as undiscussable and unalterable became discussable and alterable—for example, making changes in the financial ownership and about the directors' commitment to the firm. Another result was that most directors attempted to introduce the new concepts in the managing of case teams. Finally, some directors began to experiment with their clients. So far, the experiments have been carefully designed and successfully executed. This is leading the firm to conceptualize and produce new consulting services that promise to add additional value to the advice they give clients.

Concluding Comments

One of the most persistent reactions to the argument above is that it disregards the fact that human beings in private, public, and volunteer organizations are political animals.

The research suggests that human beings behave politically. But there is no evidence that this proclivity cannot be altered. Indeed, research results are just beginning to appear indicating that political proclivity is alterable, as illustrated in the case of the consulting firm. I hope that this essay illustrates that true revolution in the management of organizations is needed and that it will not occur by changing boxes around in organizational charts. Genuine revolution that will persist requires changing organizational and individual defensive routines.

In my experience the universities most likely to take this challenge seriously are those that take action seriously, such as professional schools like ILR. ■

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