



chris argyris: theories of action, double-loop learning and organizational learning

The work of Chris Argyris (1923-) has influenced thinking about the relationship of people and organizations, organizational learning and action research. Here we examine some key aspects of his thinking.

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Chris Argyris has made a significant contribution to the development of our appreciation of organizational learning, and deepened our understanding of experiential learning. On this page we examine the significance of the models he developed with Donald Schön of single-loop and double-loop learning, and how these translate into contrasting models of organizational learning systems.

Life

Chris Argyris was born in Newark, New Jersey on July 16, 1923 and grew up in Irvington, New Jersey. He went to university at Clark, where he came into contact with [Kurt Lewin](#). He graduated with a degree in Psychology (1947). He went on to gain an MA in Psychology and Economics from Kansas University (1949), and a Ph.D. in Organizational Behavior from Cornell University in 1951. Chris Argyris has been a faculty member at Yale University (1951-1971) and at Harvard University (1971-). Argyris is currently a director of the Monitor Company in Cambridge, Massachusetts. His major area of research and theorizing focuses on individual and organizational learning. This is how [Peter Senge](#) (1990: 182-3) talks about his own experience of Argyris as a teacher:

‘Despite having read much of his writing, I was unprepared for what I learned when I first saw Chris Argyris practice his approach in an informal workshop... Ostensibly an academic presentation of Argyris’s methods, it quickly evolved into a powerful demonstration of what action science practitioners call ‘reflection in action’.... Within a matter of minutes, I watched the level of alertness and ‘presentness’ of the entire group rise ten notches. As the afternoon moved on, all of us were led to see subtle patterns of reasoning which underlay our behaviour; and how those patterns continually got us into trouble. I had never had such a dramatic demonstration of own mental models in action... But even more interesting, it became clear that, with proper training, I could become much more aware of my mental models and how they operated. This was exciting.’

Theories of action: theory in use and espoused theory

Our starting point is Argyris and Schön’s (1974) argument that people have mental maps with regard to how to act in situations. This involves the way they plan, implement and review their actions. It is these maps that guide people’s actions rather than the theories they explicitly espouse. One way of making sense of this is to say that there is split between theory and action. However, Argyris and Schön suggest that two *theories of action* are involved.

The distinction made between the two contrasting theories of action is between those theories that are implicit in what we do as practitioners and managers, and those on which we call to speak of our actions to others. The former can be described as *theories-in-use*. They govern actual behaviour and tend to be tacit structures. The words we use to convey what we, do or what we would like others to think we do, can then be called *espoused theory* (*daadtheorie* en *praattheorie*, rvdn). When someone is asked how he would behave under certain circumstances, the answer he usually gives is his espoused theory. This is the theory of action to which he gives allegiance, and which, upon request, he communicates to others. However, the theory that actually governs his actions is this theory-in-use. (Argyris and Schön 1974: 6-7)

Making this distinction allows us to ask questions about the extent to which behaviour fits espoused theory; and whether inner feelings become expressed in actions. In other words, is there congruence between the two? Argyris (1980) makes the case that effectiveness results from developing *congruence* between theory-in-use and espoused theory. For example, in explaining our actions to a colleague we may call upon some convenient piece of theory. We might explain our sudden rush out of the office to others, or even to ourselves, by saying that a 'crisis' had arisen with one of 'our' clients. The theory-in-use might be quite different. We may have become bored and tired by the meeting and feel that a quick trip out to an apparently difficult situation would bring welcome relief. A key role of *reflection*, is to reveal this theory-in-use. Much of the business of supervision for example is concerned with the gulf between espoused theory and theory-in-use or in bringing the later to the surface. This gulf is no bad thing. But if it gets too wide then there is clearly a difficulty.

Single-loop and double-loop learning

For Argyris and Schön (1978: 2) learning involves the detection and correction of error. Where something goes wrong, people look for another action strategy. In other words, our goals, values, plans and rules remain unquestioned. Argyris and Schön call this *single-loop learning*. An alternative response is to question our assumptions and governing variables. This Argyris and Schön describe as *double-loop learning*. This is how they described the process in the context of organizational learning:

'*Single-loop learning* is like a thermostat that learns when it is too hot or too cold and turns the heat on or off. The thermostat can perform this task because it can receive information (the temperature of the room) and take corrective action. *Double-loop learning* occurs when error is detected and corrected in ways that involve the modification of an organization's underlying norms, policies and objectives.' (1978: 2-3)

In many respects the distinction at work here is the one used by Aristotle, when exploring *technical* and *practical* thought. The former involves following routines and some sort of preset plan – and is both less risky for the individual and the organization, and affords greater control. The latter is more creative and reflection here is more fundamental: the basic assumptions behind ideas or policies are confronted (Argyris 1982: 103-4). The focus of much of Argyris' research has been to explore how organizations may increase their capacity for double-loop learning. Double-loop learning is necessary if practitioners and organizations are to make decisions in rapidly changing and uncertain contexts (Argyris 1974; 1982; 1990). Argyris and Schön set up two models that either inhibit or enhance double-loop learning. Model I is said to inhibit double-loop learning. Model II enhance double-loop learning.

Model I and Model II

Argyris has claimed that just about all the participants in his studies operated from theories-in-use or values that are consistent with Model I. It involves a. 'making inferences about another person's behaviour without checking whether they are valid and b. advocating one's own views abstractly

without explaining or illustrating one's reasoning'. The theories-in-use are shaped by c. an implicit disposition to winning (and avoid embarrassment). Model I looks to d. the unilateral control of the environment and the unilateral protection of self and others. Model I leads to often deeply entrenched *defensive routines* (Argyris 1990; 1993). These can operate at individual, group and organizational levels.

Acting defensively can be viewed as moving away from growth and learning. Argyris looks to move people from a Model I to Model II orientation – one that fosters double-loop learning. He suggests however, that most people, when asked, will *espouse* Model II.

Exhibit 1: Model I theory-in-use characteristics

The governing Values of Model I are:

- Achieve the purpose as the actor defines it
- Win, do not lose
- Suppress negative feelings
- Emphasize rationality

Primary Strategies are:

- Control environment and task unilaterally
- Protect self and others unilaterally

Usually operationalized by:

- Unillustrated attributions and evaluations e.g.. "You seem unmotivated"
- Advocating courses of action which discourage inquiry: "Lets not talk about the past, that's over."
- Treating ones' own views as obviously correct
- Making covert attributions and evaluations
- Face-saving moves such as leaving potentially embarrassing facts unstated

Consequences include:

- Defensive relationships
- Low freedom of choice
- Reduced production of valid information
- Little public testing of ideas

Taken from Argyris, Putnam & McLain Smith (1985, p. 89)

The significant features of Model II aims to include the views and experiences of participants rather than seeking to impose a view upon the situation. Theories should be made explicit and tested, positions should be open to exploration by others. In other words, Model II can be seen as *dialogical* – and more likely to be found in settings and organizations that look to shared leadership.

It looks to:

- Emphasize common goals and mutual influence.
- Encourage open communication, and to publicly test assumptions and beliefs.
- Combine advocacy with inquiry .

We can see these in the table below.

Exhibit 2: *Model II characteristics*

The governing values of Model II include:

- Valid information
- Free and informed choice
- Internal commitment

Strategies include:

- Sharing control
- Participation in design and implementation of action

Operationalized by:

- Attribution and evaluation illustrated with relatively directly observable data
- Surfacing conflicting view
- Encouraging public testing of evaluations

Consequences should include:

- Minimally defensive relationships
- High freedom of choice
- Increased likelihood of double-loop learning

Taken from Anderson 1997

Employing Model II 'requires profound attentiveness and skill for human beings socialized in a Model I world'. While they are not being asked to relinquish control altogether, they do need to share that control.

Organizational learning

Chris Argyris and Donald Schön suggest that each member of an organization constructs his or her own representation or image of the whole (1978: 16). The picture is always incomplete. People, thus, are continually working to add pieces and to get a view of the whole. Organization is an artifact of individual ways of representing organization. Hence, our inquiry into organizational learning must concern itself not with static entities called organizations, but with an active process of *organizing*. Individual members are continually engaged in attempting to know the organization, and to know themselves in the context of the organization. Organizing is reflexive inquiry....

By looking at the way that people jointly construct maps it is then possible to talk about organizational learning. For organizational learning to occur, 'learning agents', discoveries, inventions, and evaluations must be embedded in organizational memory' (Argyris and Schön 1978: 19). If it is not encoded in the images that individuals have, and the maps they construct with others, then 'the individual will have learned but the organization will not have done so' (*op. cit.*).

Double-loop learning then becomes:

'... those sorts of organizational inquiry which resolve incompatible organizational norms by setting new priorities and weightings of norms, or by restructuring the norms themselves together with associated strategies and assumptions.' (Argyris and Schön 1978: 18)

The next step is to argue that individuals using Model I create Organizational I (O-I) learning systems. These are characterized by 'defensiveness, self-fulfilling prophecies, self-fuelling processes, and

escalating error' (Argyris 1982: 8). O-I systems give rise to mistrust, defensiveness and self-fulfilling prophecy. In other words, if individuals in an organization make use of Model I learning the organization itself can begin to function in ways that act against its long-term interests. Indeed, in a very real sense systems can begin to malfunction. As Argyris and Schön (1996: 28) put it, 'The actions we take to promote productive organizational learning actually inhibit deeper learning'. The challenge is, then, to create an Organizational II (O-II) learning system.

Conclusion

How are we to evaluate these models and line of argument? As Peter Senge's experience (recounted at the top of the page) demonstrates, the process and the focus on reflection-in-action does appear to bear fruit in terms of people's connection with the exercise and their readiness to explore personal and organizational questions. It is assumed that 'good' learning 'takes place in a climate of openness where political behaviour is minimized'. However, organizations are inherently political – and that it is important to recognize this.

This said, the theorizing of theory-in-action, the educative power of the models, and the conceptualization of organizational learning have been, and continue to be, significant contributions to our appreciation of processes in organizations. The notion of 'double-loop learning' does help us to approach some of the more taken-for-granted aspects of organizations and experiences. It provides us with a way of naming a phenomenon (and problem), and a possible way of 'learning our way out' (Finger and Asún 2000).

Argyris and Schön have made a significant contribution to pragmatic learning theory. First, by introducing the term 'theory' or 'theory in action', 'they provide the function of abstract conceptualization (see experiential learning) 'more structure and more coherence' (Finger and Asún 2000: 45). Second, through the notion of 'learning-in-action' Argyris and Schön rework the experiential learning cycle.

This is a very significant development. The agent is in essence a facilitator of a person's learning cycle. To this role can be added that of teacher, coach or mentor, the person who 'helps individuals (managers, professionals, workers) to reflect upon their theories-in-action'.

Further reading and references

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Argyris, C., Putnam, R., & McLain Smith, D (1985) *Action Science, Concepts, methods, and skills for research and intervention*, San Francisco: Jossey-Bass. [The entire book is available for download from: Action Design: http://www.actiondesign.com/action_science/index.htm].

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Links

- [An interview with Chris Argyris](#) – includes discussion of model I and model II organizations. (from *Thought Leaders*)
- [Action Science Network](#) – includes an outline of action science (and model I and model II) and a detailed bibliography of Argyris's work.
- [Chris Argyris](#) – useful, short biography by Bente Elkjaer
- [Chris Argyris](#) – brief biography from Harvard Business Review.
- [Good communication that blocks learning](#) – article by Argyris for Harvard Business Review, 1994
- [Motivation Theory](#) article reviewing Argyris' concern with increasing interpersonal competence.
- [Chris Argyris](#) – Page from the Monitor Group (where Argyris is a director) with links to some of his publications.

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