Single and Double Loop Learning

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The distinction between single and double loop learning has entered the lexicon of writers in the fields of professional and organizational learning, reflective practice and organizational and social change. The terms are most closely associated with two American scholars - Chris Argyris and Donald Schon. For them, learning is not the accumulation of knowledge but the detection and correction of errors. Errors are mismatches between the intended and the actual results of action, whether the action was taken by individuals, groups or organizations. Learning involves inquiry into the cause of the mismatch and revision of the action to bring about the intended consequences.

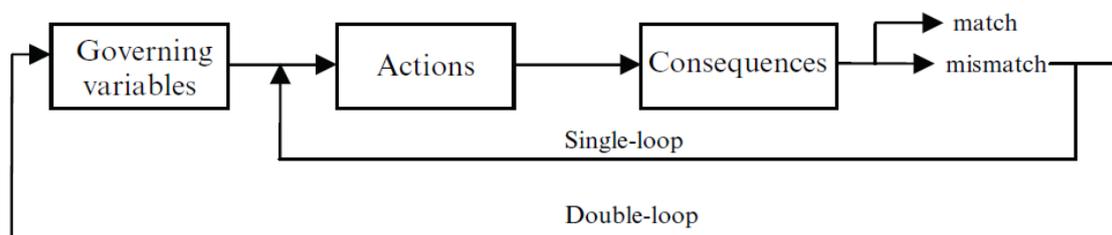The distinction between single and double-loop learning is illustrated in Figure 1.

Fig. 28.1 Single- and double-loop learning. From Argyris (1992) with permission Wiley-Blackwell

It portrays the relationships between the three components of a theory of action and how feedback triggers revision of one or more of its components (See **Theories of Action**). A theory of action comprises actions, the governing variables that they satisfy, and the intended and unintended consequences of those actions. The distinction between single and double-loop learning is illustrated with the following example. Imagine a supervisor that tells an employee that his performance is not up to standard. How he communicates this message (the action component of his theory of action) is determined by his desire to persuade the

employee to his point of view and to do so with the minimum possible negative reaction. These two governing variables (persuade and protect) lead him to praise much of the employee's work and then briefly mention his concerns about the employee's performance. The consequence is no change in the employee's behaviour. This is an error because the consequence (no change) is contrary to what the supervisor intended (improved performance).

It may be possible for the supervisor to correct the error by finding smarter ways of persuading the employee of his point of view while still protecting his feelings. This would involve single-loop learning because the change is restricted to the action strategies and the governing variables (persuade and protect) remain unexamined. There is no consideration of the adequacy of the values that are guiding the communication, nor of the behavioral world that is created by such values, even if the revised action strategies prove effective. Double loop learning requires adjustment of the governing variables which specify what counts as effective action. In this example, this would require inquiry into and possible revision of the supervisor's assumption that effective communication of negative feedback can be achieved by an appropriate balance of persuasion and protection.

Some writers on professional and organizational learning assume that double loop learning is intrinsically more valuable than single-loop learning. This is not necessarily the case, as some errors can be corrected by adjustment of action strategies without revision to governing variables. What is clear, however, is that the capacity to double loop learn, and thus to question our assumptions about what counts as effective action, is essential if individuals and organizations are to detect and correct errors which are caused not simply by poor choice of strategy but by taken-for-granted values and assumptions.

The empirical literature on professional and organizational learning suggests that double-loop learning, at both the individual and organizational level, is rare. There are several reasons for this situation. First, systems theorists attribute the difficulty to the dynamic complexity of many organizational tasks. Errors are hard to detect when actual and intended outcomes are difficult to measure. They are even harder to correct when causal relationships are obfuscated by multiple interactions, delayed effects and constantly changing environments. Second, cognitive psychologists point to the fact that our memory and information processing are designed to favor efficiency over accuracy, and so we are more likely to notice and select information that confirms rather than disconfirms our prior experience and beliefs. Third, Argyris and Schon themselves attribute the rarity of double-loop learning to the prevalence of defensive interpersonal and organizational reasoning. This occurs when people experience or anticipate threat or embarrassment and avoid or ignore attempts to inquire into its source. The supervisor displays defensive reasoning to the extent that he ignores or rules out the possibility that his own assumptions about how to be effective have contributed to the error. Individual defensiveness in such situations is likely be exacerbated by defensive organizational cultures in which norms of loyalty and face-saving prevent discussion of the adequacy of the supervisor's theory of action. Taken together, these three factors provide formidable obstacles to double loop learning.

The idea of double loop learning has much in common with that of reflection, especially when the latter is conceived as a continuous process of critical inquiry into the adequacy of assumptions about the nature and desirability of the status quo. Unlike many approaches to critical inquiry and critical reflection, however, Argyris and Schon's project has been centrally concerned not only with identifying the structural, cultural and communicative barriers to double-loop learning but also with designing interventions that

provide tough tests of their theories about how to create the conditions that make double-loop learning more likely.

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Cross References

Action Research

Cognitive Revolution and Information Processing

Critical Theory

Reflective Practice: Donald Schon

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Further Readings

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