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An Explication of the Concept of Breakdown in Heidegger, Leontjev, and Dewey

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Heidegger, the German phenomenologist, Leontjev, the Russian psychologist, and Dewey, the American Pragmatist, held surprisingly similar views on the role of breakdown or failure as a means of revealing the nature of the world around us.

For Heidegger, the resources by which we conduct our day-to-day activities do not usually require (nor do they attract) our conscious awareness. Heidegger indicated (1953/1962), however, that when ongoing, non-reflective practice is interrupted, these equipmental aspects of the world become "lit up" or brought "into view". Resources for Heidegger can present themselves in different states or modes of being (e.g., "Available", "Unavailable", "Occurrent") with respect to our ongoing activity (Dreyfus, 1991). The status of an entity can, in turn, affect the nature of our activity and our understanding of the object in use. It is the degree of breakdown, however, that determines the status of an entity with respect to our purposes.

Leontjev's (1978) development of breakdown hinges on the analytic distinction he makes among activities, actions, and operations. In this context, to be skilled in using a tool means that one has created a set of tool-using operations. With a large set of well-learned operations, a tool can really become transparent in the work and all attention can be focused to the object of actions. On the other hand, when the necessary conditions for an operation are absent, the chain of operations becomes transformed ("unfolded") back into an action.

Dewey's notion of breakdown is related to his views on sensory excitation, stimulus and response, and the habit-formation function in the lives of complex organisms. Conflicts can produce a state of disequilibrium. Recovery from such an "indeterminate situation" occurs, for Dewey, through the process of "inquiry", which he defined as "the controlled or directed transformation of an indeterminate situation into one that is so determinate in its constituent distinctions and relations as to convert the elements of the original situation into a unified whole" (Boydston, 1986, p. 108).

These three descriptions of breakdown all produce models in which the disruption of ongoing, non-reflective activity results in a shift to a more reflective stance. Though their terminology may vary ("absorbed coping" and "deliberative responding" for Heidegger, transforming "operations" to "actions" for Leontjev, "habits" and "disequilibrium" for Dewey), the process underlying the models they describe

appears very similar. The way in which each author describes this process, however, reflects the different philosophical and historical traditions within which each worked. Heidegger's phenomenologic and existential account focuses on how the phenomenon of breakdown is experienced by the individual. His perspective, therefore, is personal and emotive. His treatment of breakdown is also the most elaborate. Leontjev, rooted as he was in dialectical materialism, produced an account that focused on the activity itself and means of production. No less practical is Dewey's analysis, but instead of focusing on the activity *per se*, his focus is on the effects of breakdown on the acting organism, producing a more naturalistic account.

Both Leontjev and Dewey provide implicit learning models within their descriptions of breakdown. The transformation of an action to a series of operations in Leontjev can be considered a mechanism for learning (at least with respect to skill acquisition). Similarly, Dewey provides a mechanism for habit formation. Further, Dewey's notion of inquiry provides a method for learning that he elaborated on several levels.

How might these views on breakdown inform instructional practice? If Heidegger is correct in his claim that breakdown leads to reflection, then the argument can be made that one way of facilitating learning is to induce breakdown on the part of learners. For Dewey, it is the job of the teacher to raise questions and issues that will produce disequilibrium or a problematic situation. It is in this way that breakdown becomes a catalyst for both learning and for all productive thought. He makes clear, however, that simply inducing breakdown is not enough—teachers must also support learners in their resulting process of inquiry.

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