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SCIENTIFIC THEORIES VERSUS DIDACTIC MODELS

| | scientific theories | Didactic models |
|-----------------------------------|--|---|
| conception of knowledge | Knowledge as a representation of reality | knowledge as confrontation with reality, "dealing with it" (R. Rorty) |
| project | describe reality | act on reality |
| validation criteria | -predictive power -inadequacy to reality itself | -the most efficient possible explanation of a set of information expanded to the maximum" (R. Rorty) -effective action in context |
| approach | external approach: theories developed in disciplines outside DLC are imported as is | internal approach: -son develops models within the CSD itself -external theories are used to develop theoretical models for CSD |
| orientation | product orientation: we use established theories | process orientation: the focus is on the modeling activity itself |
| approach | hypothetico-deductive approach | inductive conceptualization based on empirical observation |
| method | -simplification of reality: analytical approach, reproduction by manipulating isolated parameters -search for absolute objectivity | problematization": taking complexity into account, with its multiple, heterogeneous, variable, interrelated, contradictory and context-sensitive parameters (E. Morin) -implementation of "intersubjective objectification procedures" (E. Morin) |
| implementation | we "apply" a theory | we "run" a model |
| theory-practice'' relationship | critical perspective: practice is seen as "the product of a degradation of theory" (R. Rorty) | pragmatist perspective: theory is treated "as an auxiliary to practice" (R. Rorty) |

REFERENCES:

MORIN Edgar, Introduction à la pensée complexe, Paris: ESF éditeur, 1990, 160 p.

RORTY Richard: *Hope instead of knowledge. Introduction au pragmatisme*, trans. Paris : Albin Michel (coll. "Bibliothèque internationale de philosophie"), 1995, 158 p.