
Collective Competence: Implications for Assessment of Doctors

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- ❑ Traditional exclusive focus of assessment: performance of the *individual*.
 - ❑ This exclusivity increasingly questioned in recent work on learning.
 - ❑ Challenges ingrained opinions about learning.
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A surprising, but not widely recognised, fact about learning:

Humans are unable to think about learning without employing *metaphors*

METAPHOR

Metaphor: “the transfer of a name or descriptive term to an object different from, but analogous to, that to which it is properly applicable, e.g. ‘abysmal ignorance’”.

(*Analogy*: “likeness in certain respects”).

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- Scheffler: every metaphor has limitations, “points at which the analogies it indicates break down”.
 - An *important theme* in what follows: we can be badly misled by taking metaphors too literally.
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The '*common-sense*' understanding of learning:

- *acquisition* and *transfer* metaphors.
 - Bereiter (2002): the '*folk theory*' of learning.
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The most desirable learning:

- is located in individual minds (not bodies);
- centres on factual statements (or propositions);
- is available for ready recall by the minds that have acquired them;
- can be transferred (applied), via our bodies, to alter the external world.

Learning as furnishing of minds with appropriate arrays of propositions (knowledge).

“Under the influence of the mind-as-container metaphor, knowledge is treated as consisting of objects contained in individual minds, something like the contents of mental filing cabinets.”

(Bereiter 2002, p. 179)

Crucial assumptions of ‘common-sense’ story shape thinking about learning and assessment in educational systems and policy documents.

Assumptions such as:

- ❑ ‘What is learnt is an independent *thing* or *substance*’.
 - ❑ ‘Learning is a kind of thing *inside of learners*’.
 - ❑ ‘Application as *movement of a thing (learning) from place to place*’.
 - ❑ ‘Learning as a thing *independent* of both the learner and the contexts in which it is acquired and applied’.
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There is a skills version of the 'common-sense' story about learning.

Skills:

- are located in individual bodies.
 - are independent things (or substances).
 - can be transferred (e.g. from training course to workplace).
 - can be context-free (so-called 'generic skills').
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Limitations of the acquisition metaphor

- ❑ Learning is not *acquired* in the normal everyday sense of 'acquire': *acquisitions and possessions are not normally located inside of us.*
 - ❑ So, even if learners do acquire and possess their learning, to think that they thereby *contain* it is to read more than is warranted into the metaphors.
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Limitations of the transfer metaphor

- ❑ To be transferred is literally to leave place or position A and go to place or position B.
 - ❑ So it is literally untrue that to teach skills is to transfer them.
 - ❑ Teachers do not transfer their skills to learners. Rather, a new instance of the skill is created, in the learner's body. But the teacher still retains the skill that has been supposedly 'transferred' to the learner.
 - ❑ Definitely not transfer in the usual sense. The metaphor misleads us.
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Apparently simpler case: transfer of skills from place to place.

If really transferred, skills would be left behind when person leaves the place or situation.

More accurate: *persons* having skills transfer from place to place rather the skills themselves transferring.

Again, the metaphor can easily mislead us.

Alternative approaches to understanding learning

- ❑ Learning as a conceptual and linguistic construction
..... widely-used in many societies and cultures, but with very different meanings, which are at least partly contradictory and contested.
 - ❑ There is no external, reified entity that is 'learning'. Rather, people construct and label certain processes/activities/products as 'learning' (Saljö 2003).
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Newer learning theories:

- situated learning
 - socio-cultural activity theory
 - cognitive apprenticeship
 - etc.
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Rejected assumptions from the 'common-sense' story:

- ❑ 'learning as a thing'.
 - ❑ 'individuals as the main or only locations of learning'.
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Main alternative metaphors

- *Participation*
 - *Construction / re-construction (or transformation)*
 - *Becoming*
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Participation metaphor

- ❑ Learning through *participation* in human practices.
 - ❑ What is learnt is a complex social construction that subsumes the individual learner.
 - ❑ Learning is no longer independent of the learner.
 - ❑ Learning is inherently contextual. Both learning and the learner evolve as contexts change.
 - ❑ Communal learning important, i.e. learning by teams or organisations that is not reducible to individual learning.
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Limitations of the participation metaphor

- ❑ Learning is so completely embedded within the given context that there is a mystery about exactly how individuals are reshaped by their learning.
 - ❑ Research focus on learning within single workplaces. Little about the effect of previous learning on current learning, or of past or present learning on future learning.
 - ❑ Cannot explain all learning for all purposes.
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Construction / re-construction (or transformation) metaphors

These metaphors involve the *re-construction* or *transformation* of either the learner(s) or of the learner(s) together with their environment.

Two variations:

1. *Constructivism*

- Transformation or reconstruction within the individual learner.
 - Concentration on propositional knowledge.
 - Downplays the significance of context for learning
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2. Transformation or reconstruction of holistic learning systems

Learner(s) together with the environment become the unit of analysis.

Includes learning by collective entities.

- Learning, is a complex relational web that transcends the individual learner.
- Learning is an evolving process that includes the learner evolving.
- Learning involves emergence of novelty as new understandings and/or new contexts are formed.

Limitation: Individual change can be lost.

Becoming metaphor

- ❑ Holistic focus on individual as well as groups.
 - ❑ Person as embodied social self including skills, knowledge and understanding.
 - ❑ Learning as a relational web in a process of ongoing change.
 - ❑ Connects learner to surrounding world in an evolving way.
 - ❑ Ongoing personal reconstruction, sometimes explicit and agentic, but much of it tacit from the perspective of the person concerned.
 - ❑ Learning does not entail a fixed state of having become.
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Conclusion

Implications group learning for medical education:

- ❑ Beware of reading too much into metaphors of learning.
 - ❑ Recognise multi-faceted nature of learning.
 - ❑ Learning as a process of becoming, involving both individuals and groups.
 - ❑ Individual not always the right unit of analysis.
 - ❑ Team work and group practice as hot issues in medical practice.
 - ❑ What structures facilitate and value both individual and group learning?
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