

Aspects of a learner's views at 5 different points on the Perry spectrum

	Student in Unknowable position	Student in position A	Student in subjectivist position(B)	Student in proc position	Student in constructivist position(C)
Student Role	React to demands	Passive acceptor	Realises that some responsibility rests with the student. But what? And how?	Follow rules	Sees student as source of knowledge or is confident of finding it. Debater, making own decisions. Wants to explore contexts; seeks interconnections.
Lecturer's Role	Make arbitrary demands	Authority, giving facts and know-how	Authority, where there are controversies, wants guidance as to which the lecturer favours.	Supply material, and support increasing skill at the rule of argument.	One authority among others. Values views of peers. Teacher as facilitator or gateway.
View of knowledge	Not possible to know things	Factual; black and white; clear objectives; non-controversial; exceptions unwelcome.	Admits 'black-and-white' approach not always appropriate. Sees no way to choose between alternative views. Feels insecure with these uncertainties.	A matter of competing views or theories, with different supports. Evidence, not just conclusions, an important part of knowledge. Enjoys creativity, scholarly work.	Enjoys creativity, and employing procedures for own original ends.
View of exams	Meaningless torture	Regurgitation of 'facts'. Exams are objective. Hard work will be rewarded.	Quantity is more important than quality in demonstrating maximum knowledge.	Demonstrate ability to produce reasoned arguments (though only to questions that do not challenge paradigm)	Quality is more important than quantity. Wants room to express own ideas, views.
Student confidence depends upon:	Being told what to do	The teacher	Little confidence, high uncertainty.	Mainly self; although also important to be part of a community following the same (CT) rules	The student her/himself

Aspects of a learner's views at 3 different points on the Perry spectrum

	Student in position A	Student in position B	Student in position C
Student Role	Passive acceptor	Realises that some responsibility rests with the student. But what? And how?	Sees student as source of knowledge or is confident of finding it. Debater, making own decisions. Wants to explore contexts; seeks interconnections.
Lecturer's Role	Authority, giving facts and know-how	Authority, where there are controversies, wants guidance as to which the lecturer favours.	One authority among others. Values views of peers. Teacher as facilitator or gateway.
View of knowledge	Factual; black and white; clear objectives; non-controversial; exceptions unwelcome.	Admits 'black-and-white' approach not always appropriate. Sees no way to choose between alternative views. Feels insecure with these uncertainties.	A matter of competing views or theories, with different supports. Evidence, not just conclusions, an important part of knowledge. Enjoys creativity, scholarly work.
View of exams	Regurgitation of 'facts'. Exams are objective. Hard work will be rewarded.	Quantity is more important than quality in demonstrating maximum knowledge.	Quality is more important than quantity. Wants room to express own ideas, views.
Student confidence depends upon:	The teacher	Little confidence, high uncertainty.	The student her/himself

Perry (William, G.)

Book (1968) first put it forward. Other work since.

Based on a big interview study of Harvard undergraduates.

Key idea: that universities should be supporting students through a developmental progression from a simplistic to a more mature view of what knowledge is.

Perry discriminated 9 stages; recent local work has simplified it to 3 main stages.

Perry implies a view of this being a cognitive attribute: stable, long lasting, uniformly applied by person to all topics. This is questionable.

It has (at least) 4 different manifestations as an attitude about each of:

What knowledge is (implicit epistemology)

Student role

Teacher's role

What exams are / require

Belenky et al.'s feminist development of Perry

Belenky, M.F., Clinchy, B.M., Goldberger, N.R. & Tarule, J.M. (1986)

Women's ways of knowing:

The development of self, voice, and mind

- **Silenced:** unable to know.
They don't believe any learning is possible or useful to them.
- **Connected learning vs. unconnected.**
Science as unconnected knowledge: you shouldn't know or care who believes this, or how it is useful to them.
Connected: knowing the inter-personal aspect of beliefs as part of knowing the ideas. Stress synthesis rather than true/false debate "hypotheses".

Aspects of the issues uncovered by Perry

One view of Perry is that, whatever criticisms of his views and work may be made, he has identified a crucial area of concern. My current view is that in fact there are three independent issues here.

1. Part of the subject content: you learn for any topic whether it is one on which everyone agrees, or that there is no agreement, or that there are well known dissident views; what the main alternative views are, and the status they have.
2. **Critical thinking**: a generic cognitive skill that in principle can be applied to anything, though in practice partly depends on content knowledge (you can't argue about alternatives without having learned what the reasonable alternatives are, and what the relevant evidence is).
3. **Personal development**: (perhaps closest to Perry's original spirit). Education, as opposed to mere training, should include qualitative personal development. One aspect of this could be developing personal decisions on how to judge your own learning. (ethics? Identity?)

A Perry type C approach to Perry's theory

Black & White claim A student suggested that there is a **self-contradiction**: that Perry asserts his theory as the only view or truth on the topic: that a given learner is either type A or B or C (or actually, one of his 9 stages in the detailed stage model).

Alternative theories Actually, in the lecture, I tried to present alternative views of the topic: learner attitudes / views of the nature of knowledge.

a) Perry: it's a persistent character trait that an individual applies to all topics and knowledge.

b) Kuhn: it's a trainable cognitive skill; again, applicable to all topics, though presumably only if the learner chooses to do so or finds it useful for that topic.

c) Possible new view: it varies, even in a single individual, with the topic. It is more like part of the knowledge: have you learned (been taught) alternative views or not? The standing of each such view? Evidence or reasons for and against each?

Status: All plausible and believed by some; this lecturer prefers (c).

Evidence: Perry provided evidence for his view (his interview study); and subsequent student studies here have shown individuals' views depend on the topic, which is evidence against Perry and perhaps for (c). But perhaps I'm guilty of skipping this and presenting in a B&W manner?

Types of depth as structure of the knowledge

Understanding, or deep learning, is never complete.

Some types of connection to make to approach it:

- **Concept to example: can you produce examples?**
- **Concept to personal experience (feelings, perceptions,...).** This is about how a concept or theory shows up in evidence and experience.
Although evidence may decide between theories, a more general issue for learners is to learn how an idea connects to any evidence at all: what does it mean for experience? What is "force" in the world? What is the difference between pain and discomfort?
- **Concept to concept: alternative theories of the topic [Perry].** This will be about rival claims to truth.
- **Concept to contradictions, inconsistencies, ...**
What things actually or potentially conflict with a given concept or theory?
- **Enlightenment / relevance / validity:**
What prior questions does this answer; what useful problems does this theory solve?

Deep and shallow learning: aspects

- The structure of the knowledge itself, the kinds of link between bits of what you know.
- The goal of the learner (for this topic): e.g. to understand (deep learning) or to learn \approx to do some specific task e.g. pass a test (shallow learning).
(Intrinsic vs. extrinsic motivation.
Approach vs. avoidance goals.)
- **Method (or "strategy" or "approaches"):** learning styles, activities. How the learner goes about understanding / learning this topic.

What measures they use to regulate their learning e.g. aim for grades? for doing all the problems in the textbook? for that inner feeling of understanding? [Snyder]
- And all of these may apply differently to different topics of learning for the same learner — but almost all the literature assumes they are pervasive traits.

Laurillard's 12 mathemagenic activities

Conceptual description

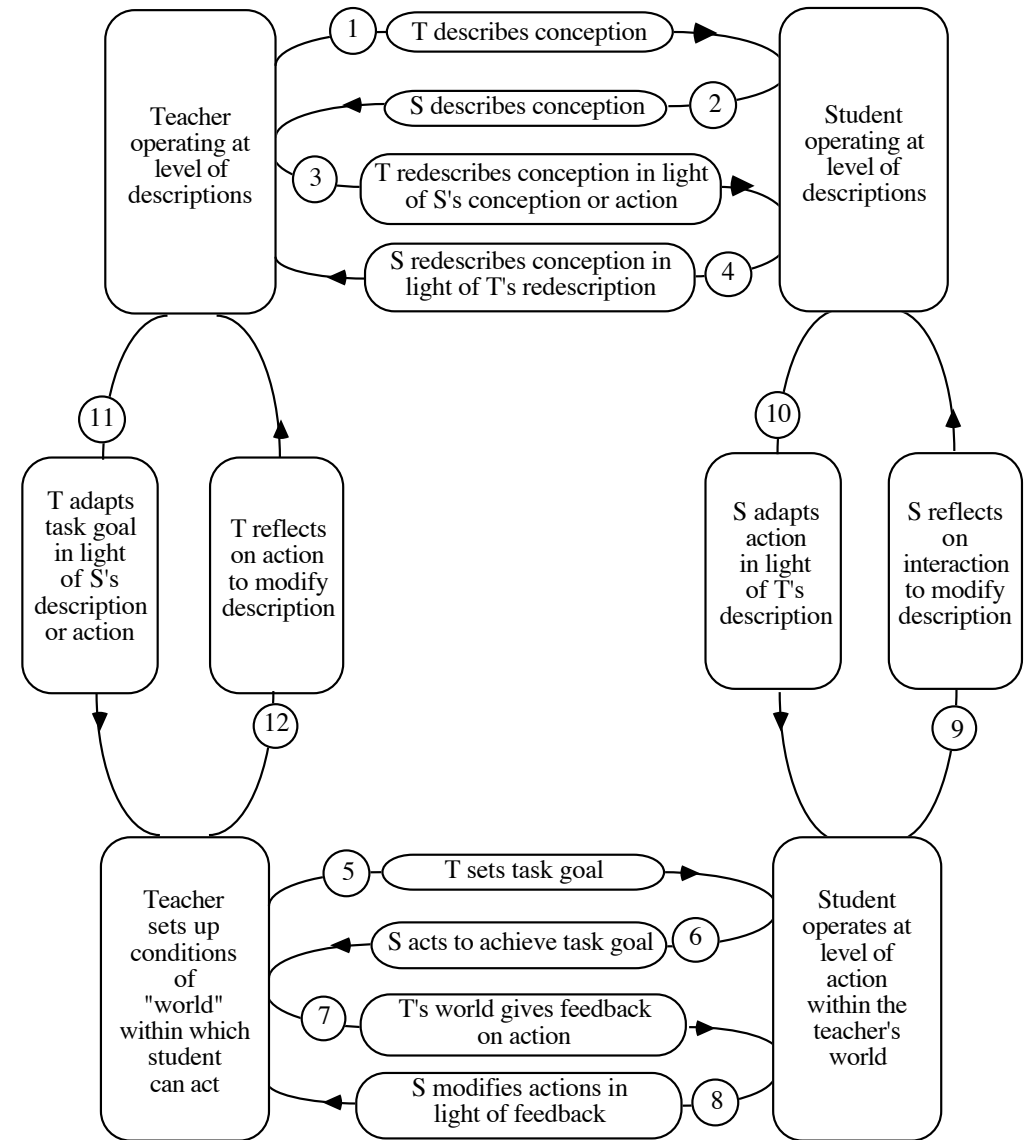
1. Teacher describes the conception.
2. Student re-expresses the conception.
3. Teacher re-describes the conception in the light of the student's expression or action.
4. Student re-describes the conception in the light of the teacher's redescription.

Personal experience / action

5. Teacher sets task goal.
6. Student acts to achieve the task goal.
7. Teacher's world gives feedback on the action.
8. Student modifies actions in the light of feedback.

Reflection: (linking description and experience)

9. Student reflects on action to modify description.
10. Student adapts action in light of concept.
11. Teacher adapts task goal in light of student's description.
12. Teacher reflects on action to modify description.



Laurillard's diagram of 12 activities for teaching and learning.

It is redrawn with the numbers modified from fig.II.1, p.103, in
 Laurillard, D. (1993) **Rethinking university teaching:**
 A framework for the effective use of educational technology
 (Routledge: London).

Learners benefit from others with and without special expertise, intention, or being personally known
 + indicates an activity initiated by the learner (proactive-ness)

Helper's expertise	Intention to teach	Personal relationship (contingent action)	Not personal
Unequal, staff, benefit not reciprocal	Intended	Teacher monitoring, Scaffolding of procedural skills + Ask a tutor	Lecturing, Writing a textbook, + Asking an expert
	Unintended	Role model (using a teacher as), (+) Imitating or observing someone more knowledgeable whom you know	+ Eavesdropping on strangers, Using a celebrity or hero as a role model, + Studying the career of a politician to gain similar success
Equal, peer, reciprocal benefit	Intended	+ Alternating roles e.g. testing each other, student reciprocal critiquing, The same but imposed by staff	Wikipedia, Anonymised versions of student reciprocal critiquing, + Posting a question to a forum
	Unintended	Peer discussion, + Borrowing lecture notes, + Spying on, imitating, or observing a classmate you know	Anonymous peer review, + Comparing your marks or actions to the class norm, + Listening to classmates' questions and comments, + Mutual help with the process e.g. ask where the classroom is.