

KCT2

Personal Scientific Progress

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19 May 2008

Initial question:

Patterns and revolutions in your personal scientific progress

Questions that really mattered for us (7th of April):

Dirk: Can we learn something about cognition by looking at how we would design an “universal message”?

Kathrin: Why do I want to write a PhD thesis but not a novel?

Natalia: What does it mean to be a scientist?

I Part: On-line Questionnaire

1	<i>What is your scientific discipline?</i>	economic, biology, social anthropology
2	<i>How long have you been working in science?</i>	majority 1 year; 4, 6, 20 years
3	<i>What does scientific progress mean to you?</i>	Finding new ways... Finding out something new... Finding new insights... Gaining knowledge... Creating knowledge... Winning knowledge... Understanding of the things ...
4	<i>What is your personal contribution to the progress of science?</i>	no answer, I try..., I hope..., I would like..., I do not have yet...
5	<i>Have you ever created radically new scientific knowledge?</i> <i>If so, could you describe a moment when it happened?</i>	most answers were "not yet"
6	<i>Would you say of yourself that you have a scientific paradigm?</i> <i>If so, have you ever consciously questioned it?</i>	most answers "No", if "Yes" than the paradigms were consciously questioned
7	<i>What is your motivation to work in science?</i>	Understanding things better... Understanding of the new perspectives... Interest in learning... Being creative... Pretty important profession...

We didn't get as many answers and as personal answers as we expected.

This can be explained by the idea that it is very hard to evaluate one's own progress.

II Part: In-depth Interviews with two scientists from Molecular biology and Artificial Intelligence disciplines

What were the common ideas of the both interviews?

- 1. Both interviewers talked about the importance of the interdisciplinary and international dimension in the scientific community.**
- 2. Both interviewers did not talk a lot about their personal progress. They mainly focused on the general understanding of the progress and also on the progress of the people whom they were teaching (students, workshop participants, group members). The progress of those people they considered as their own progress.**

Conclusion from the Observation parts:

The progress of one man is the progress of no one.

- 1. It seems that the social environment has a lot of influence on the knowledge creation and progress in science.**
- 3. It seems that it is necessary that people coming from the diverse backgrounds (cultural, educational, paradigmatic) work together in order to achieve scientific progress.**

**Personal scientific progress is facilitated by
interdisciplinarity and cooperation**

Presencing phase — "woodland experiences"



Meadows as scientific fields/patterns

How to find a path from one scientific field to another one?

We realized that we tried to visualize certain science-related spaces as maps, and that we associated progress with routes or roads on that map

Prototype

We created a radically new map of the scientific fields.

Different regions represent different scientific disciplines .

Disciplines are placed on the map according to their relationships with each other.

Opposite to the geographical map the map of the scientific disciplines still contains a lot of white areas that are waiting to be discovered (new knowledge creation).

You can locate yourself on the map.

A map gives you an overview which disciplines/approaches are relevant to your scientific problem.

Based on the map and your personal preferences you can draw a route for your scientific progress.

Our assumption is that our map can help to define your personal progress route and to prevent you from being lost in science.

Example of the scientific problem:

What will be the consequences of global warming in Austria?

Your **personal** route to answer a question:

**Should a nuclear power plant be
built in Austria?**

**Did you have a feeling that our map was helpful to
address the problem?**

