

Common grounds & interfaces

Multilingual interdisciplinary
R&D in the 21st century

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Roadmap

- General and specific discussion on the importance of interdisciplinarity;
- Research possibilities;
- General trends;
- Applications & Learning mechanisms;

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General Reflections and Trends I

- Main faculties interconnect, such as:
 - Medicine and economics
 - Medicine and diplomacy
 - Neurosciences and bilingualism
 - Economy and Neurosciences (research with Oxytocin)
 - Medicine /neurosciences and T& I
 - Law and Medicine/translation

In order to find new orientations more likely to meet the market needs

Why interdisciplinary approach?

- ❑ IT ENHANCES SUBJECT MATTER KNOWLEDGE!
- ❑ It enhances skills
- ❑ It enables better knowledge construction
- ❑ EX:
 - ❑ Hospital interpreting
 - ❑ Court interpreting.

General Reflections and Trends II

□ T&I studies:

- ◆ Need to enlarge their research in order to enhance their teaching;
- ◆ Have to improve their research on an interdisciplinary level in order to walk new ways.
- ◆ Should deepen their knowledge in adjacent fields,
- ◆ with the aim that one day, other disciplines will want to do more interdisciplinary studies with T&I.

Why?

- ❑ 1. To improve the teaching –learning process and training;
- ❑ 2. Interdisciplinarity allows for an individualization of the development of competences;
- ❑ 3. Learning mechanisms are more and more explained through cognitive sciences;
- ❑ 4. interdisciplinarity contributed highly to the scientific framework of our discipline.

From product to process

- New training methods in order to:
 - Understand the different processes which lead to good or bad quality translations;
 - To correct the process;
 - Determine positive working patterns;
 - Identify translational strategies;
 - Empirical research to examine: where is information treated, and how?

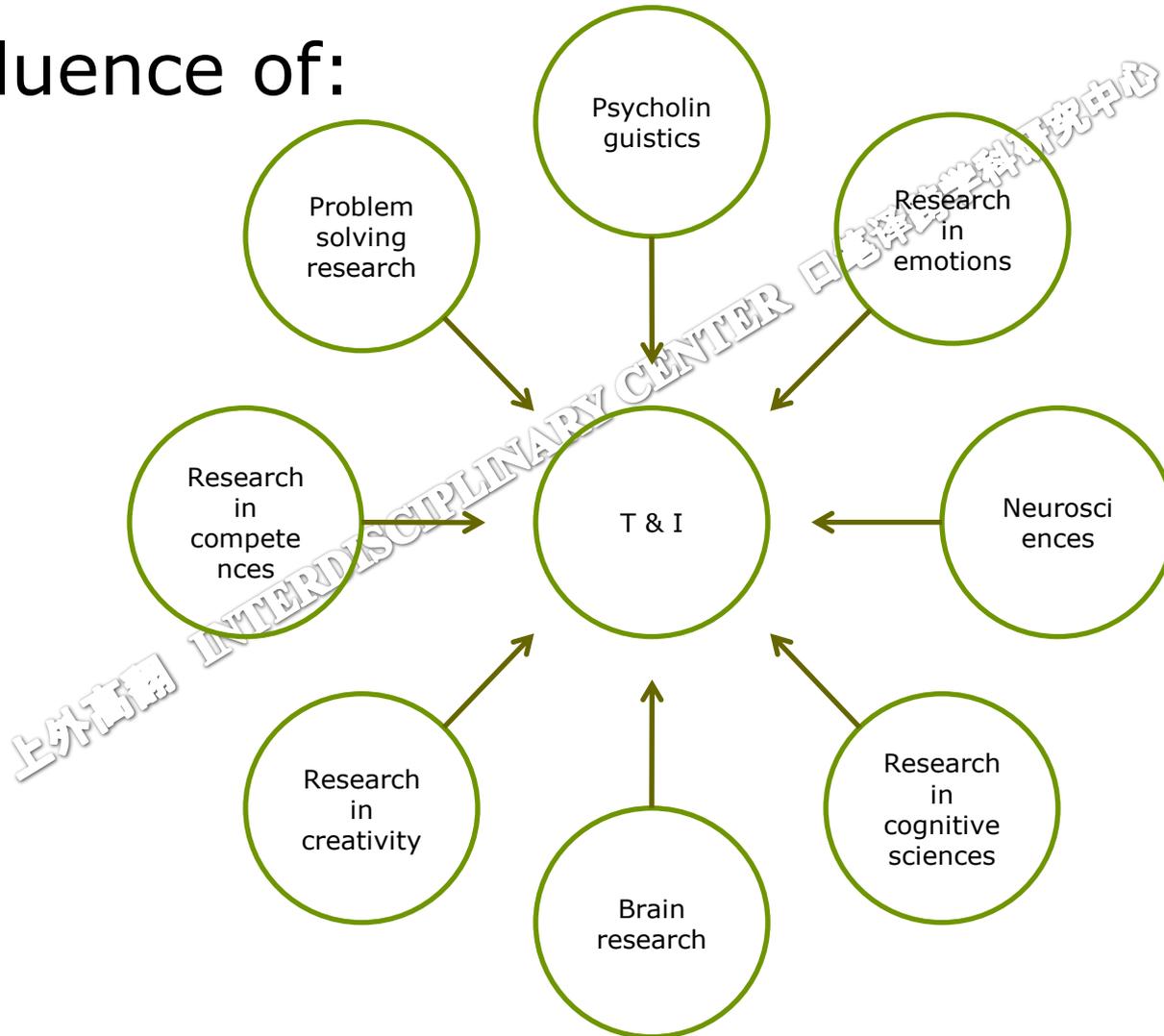
Disciplines used in TD: An overview

- Psycholinguistics
- Research in emotions
- Neurosciences
- Cognitive sciences
- Brain research
- Research in creativity
- Research in competences
- Research in problem solving

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How does it work?

□ Influence of:



Research

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Psycholinguistics

□ Research on the level of the translation process:

TAPs – Think aloud protocols were at the very beginning of this stream of research

- in order to improve translation competence through more efficient teaching and learning,
- in order to better understand the linguistic processes in the brain
- to improve scientific work in translation studies.

Research in Emotion

- Recent studies in psychology and neurobiology show how important emotions are in decision processes (Bruun 2011)
- Current interdisciplinary studies search for the impact of emotion in errors made by translators (2010: Lee-Jahnke/Lehr/Scherer)

Trendsetter: Emotion

- ❑ Emotions and language are closely related (Damasio 1994, 2003) Cyrulnik (2010) Scherer (2001, 2008, 2012);
- ❑ Interest for translation studies: to better understand the reason for certain mistakes, which are NOT linked to lack of vocabulary.
- ❑ We do need systematic schemes to implement them in translation training!

Real project with “diplomatic” outcome

- Geneva emotion wheel (Scherer 2000)
- Main emotions in 8 languages
 - Arabic, Chinese, Hebrew, English, French, German, Russian, Spanish
 - Outcome: Information brochure for diplomats

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Emotion & Oxytocin

□ We know now:

- Stress inhibits oxytocin-release
- A major stress factor is fear
- Hence, persons who are afraid, are inhibited in their learning activities

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Trendsetter: Motivation

□ Competences & motivation:

- Where, when and how evaluation matters.

Motivation is the drive which mobilizes cognitive resources.

Adults are motivated by the progress they make – therefore:

Trainers have to find means to enhance this progress, i.e. through:

Project teaching

Motivation & Project teaching

- Projects help students to work more process-oriented:
 - The objective of the task will help them to choose;
 - The selection of translation strategies will be more appropriate if the constraints imposed are more precise;
 - Higher responsibility will help to improve autonomous learning.

Motivation & Evaluation

- Where does evaluation count?
- 1) in translation didactics
- 2) in professional evaluation

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Didactical evaluation:

- Student centeredness
- Learning outcome
- Competence orientation

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Formative evaluation in PSI:

- Occurs:
 - A) before
 - B) during
 - C) after translation

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Motivation: Stimulation of Learning Mechanisms

□ Inference

- **Deduction:** aims at getting a truthful conclusion, starting from one or more premises known to be correct. This deductive capacity can be stimulated by the use of a translation report;
- **Induction:** is based on particular premises which worked well in other circumstances and aims at applying them in a more general way.

Learning Mechanism: Judgement

- **Evaluative judgement:** is characterized by a choice of options which can be put into a hierarchical order or not. Decisions have to be made and, to be able to make decisions, criteria have to be established;
- **Predictive judgement:** is based on probabilities which go back to experience. It is normally found in advanced learners or professionals, where it is also linked to automatisms.

Reasoning by Analogy

- Learning by analogy:
- The learner has two options:
 - Either he generates knowledge through analogy, or:
 - An analogy is created through a connecting mechanism, in which the subject, through inference, finds the answer to the problem.

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Analogy and Cognitive Activities

- Understanding
- Reasoning
- Problem solving
- Learning
 - Which have to be divided in
 - source situations and
 - target situations

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1.Understanding, 2.Reasoning, 3.Problem Solving: Important

- 1. Specificities of the ST are listed as well as cultural specificities and translation problems;
- 2. Text coherence and language register are analyzed
- 3. Some problems can be discussed in class, for others individual work is requested via the translation report.

Neurosciences

- Research in bilinguals show the activation of the brain and the language selection mechanism;
- Studies language proficiency (2007: Mouthon/Annoni/Lehr/Lee-Jahnke/Khateb)
- What happens ins the brain during the translation process?
 - Comparative studies between novices – advanced learners – experts

What can we learn from Cognition

- 1. Neurocognitive aspects of translation:
 - Cognitive learning strategies and especially the so-called organisation strategies, enable the learner to group information in a form which is easier for him to understand (based on the personal experience & knowledge);
 - The importance of individual processing of knowledge (hence, disadvantages of pure ppt-training)

Cognition : cognitive learning strategies

□ Cognitive learning strategies

- Elaboration strategy:
 - Helps learners to integrate new knowledge into the existing one;
 - Is mainly responsible for critical examining, and
 - The so-called repetition strategies, which enhance procedural knowledge

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Research in cognitive sciences

- On the level of:
 - Memory
 - Abstraction
 - Analytical and holistic reading/working
 - in order to plan the training course in an optimal way with real projects

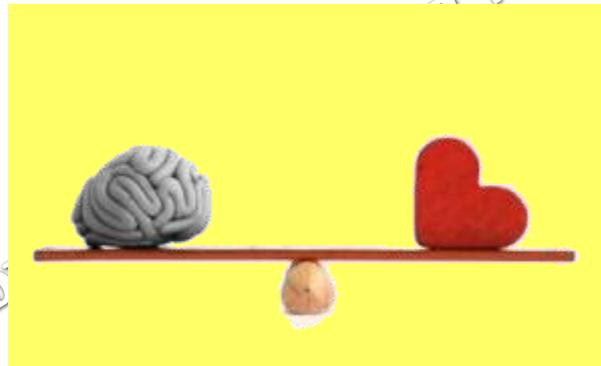
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In fine

- We are probably only at the beginning of an exciting period of interdisciplinary research in which cognition, emotion, neurosciences and motivation play a role.

My wish: We need more collaboration in order to exchange best practices and to be able to make our contribution to interdisciplinary studies.

What it needs for interdisciplinarity



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