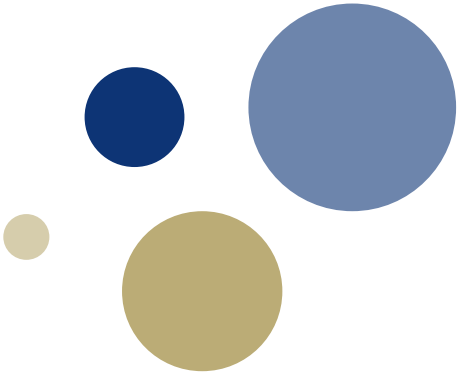
NTNU – Trondheim
Norwegian University of
Science and Technology



Lan
Percept
LANGUAGE AND PERCEPTION

LanPercept Mid-Term Presentation

EU's Seventh Framework Programme for research, technological development and demonstration under grant agreement no 316748

LanPercept Consortium

Scientific agenda

- Approach the rich interaction between two basic cognitive systems – language and perception
- Interact bi-drirectionally
- ✓ Language guides visual attention (language-mediated eye-movements)
- ✓ Perceptual cues important for language processing
- Interest in how language & perception interact in typically developing children and typically ageing adults
- Interest in how this interaction breaks downs in developmental disorders
- How to improve methodologies and technologies for language and perception research

Research agenda - central issues

- Given that language and (visual) information interact bi-directionally, open questions remain
- Under what conditions?
- What is the time-course/line of the interaction?
- What happens in the course of development?
- What happens in the case of dissociations in developmental disorders? Crossing modalities is a problem.
- (How) Can we develop new tools for research targeting this interaction?

Main goal

- Bring together an **interdisciplinary group**; high expertise in the areas covered (eye-tracking research, imaging research, clinical research, theoretical research) and exploit the **synergy** created through

✓ Mentor/supervisor interaction and

✓ Young researcher (fellows) interaction

Initial stage – kick-off

- Formal start – Jan 1st, 2013
- Preliminary org meeting – Amsterdam, January 2013
- Kick-off event – April 4-5, 2013
- Scientific Conference open to the public (≈ 25 participants)
- Inaugurated by Vice-Rector for Research, Prof. Kari Melby and Dean, Prof. Kathrine Skretting
- Invited talks

✓ Gerry Altmann
✓ Rolf Zwaan
✓ Tommy Strandvall
✓ David Saldaña
✓ Isabel Rodriguez

Initial stage

- Business meeting

✓ Constitution of Supervisory/Steering Board

✓ Constitution of Educational Board

✓ Discussion of Management structure

✓ Budget issues and disbursement

✓ Recruitment procedures

- advertising for the ESR positions
- selection criteria and procedures
- hiring successful applicants

Recruitment - Selection

- Broad advertisement in multiple professional channels (EURAXESS), March 2013
- Extremely successful – on average 20 applicants per position
- A 2-stage selection process

✓ Suitable candidates selected from the pool (≈ 4-5 per project) and invited for an interview

✓ Top runner-ups for each ESR position inivited to a final interview (May- June)

- Recruitment process managed and coordinated by the ITN coordinator team

Recruitment - Hiring

- Successful applicants offered formally an ESR position
- Contract preparation and signing
- All received 100% employment contracts for the full 3-year period (only 1 received a 2 + 1 year contract due to local formal regulations)
- Work start – August/September 2013 (on time and according to Gantt chart)
- Career development plan drafted upon hiring (monitor fellow progress)

Local training infra-structure

- All ESRs enrolled in the local training (PhD) Programmes
- Participate in local training events as part of these educational programmes
- Many ESRs have participated in additional training events (local and European organised by the participating host institutions)

Main objectives

- To train the Language and Perception researcher of the future
- An interdisciplinary field – linguistics, psychology, neuroscience and neuro-rehabilitation, technology (advanced methods for studying human behaviour)
- 3 WPs

✓ Basic research (typical development, ageing)

✓ Developmental disorders (autism, dyslexia, deafness)

✓ Methodological development (ERs)

- The future of European science is interdisciplinary

Aims for training

- Research skills and competencies (theoretical and methodological)
- Broader eductaion in the field
- Generic and transferable skills
- The training events have targeted all 3 types of skills

Training events – joint ITN

- Planned events

✓ 3 Training schools

✓ 2 Training workshops

✓ 3 Training courses

✓ 3 Conferences

Completed training events

- 1st Training school – Aston University, Sept. 24-27, 2013
- Participants – 25 ITN only
- Topics covered

✓ Theoretical perspectives and emerging issues in language and perception research

✓ Methodological issues

✓ Eye movement methods

✓ Studying vulnerable populations

✓ Ethical issues in research with vulnerable populations

✓ Demos

Aston University
Yoana Vergilova

Training events – Seville

- Conference «Cognition and Language in developmental disorders», Seville, Nov. 21-22, 2013, open event
- 50 participants
- Talks by leading experts in the field – Liz Pellicano, Gabriella Vigliocco, Joel Talcott, Caroline Witton
- Satellite outreach symposium «Psychological and educational intervention in Autism: Where to go and how to get there» (for general public: child therapists and practitioners)

Seville, contd.

- Topics covered
- ✓ Phenotypes in developmental disorders
- ✓ Language and perception in developmental disorders
- ✓ Accounts of perception in Autism
- ✓ Sensory processing impairment in developmental disorders
- Focus on generic skills – poster presentations by the students with comments from all senior staff and peers present

Simposio AETAPI-LANPERCEPT
"Hacia dónde ir y cómo llegar en la intervención psicoeducativa con personas con autismo"
Sevilla, 20 de Noviembre 2013
AETAPI
Lan Percept
Fundación Cajasol
Fundación Cajasol
Fundación Cajasol

"Hacia dónde ir y cómo llegar en la intervención psicoeducativa con personas con autismo"
Sevilla, 20 de Noviembre 2013
Fundación
Cajasol

en la intervención
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con autismo"
Sevilla, 20 de Noviembre 2013
Fundación
Cajasol

Training events - Valencia

fivan
fundación instituto valenciano de neurorrehabilitación

- 1st Training course – «Basic research and technological approaches in neurorehabilitation», FIVAN, Valencia, June, 26-27, 2014, open event
- 30 participants
- Talks by leading experts – Fernando Maestú, Antoni Rodriguez-Fornells, Laura Bosch
- Topics covered

✓ Functional network organization in brain diseases

✓ Benefit from cognitive rehabilitation programs in multiple sclerosis patients

✓ Implications of dorsal brain networks during language learning

Valencia contd.

- ✓ Early speech perception and later language outcomes: exposure and brain maturation factors
- New Technologies and interfaces for (neuro-) rehabilitation with demos

D. Pablo Gagliardo
SUPERIOR DE
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ÚBLICA
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SS
PLANTA SEMISOTERRANI

Dª. Laura Bosch
D. Pablo Gagliardo

D. Vicente Penades
SOM Investigació
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Basic research a
approaches in n
Valencia, 26-2

Training ctd.

- Embodied and Situated Language Processing (ESLP)

International Conference – Rotterdam, August 19-21, 2014

- Participants – over 100 (open to the research community and public)
- Main organiser – Rolf Zwaan and Katinka Dijkstra from the Rotterdam team
- LanPercept members gave talks and poster presentations
- Topics covered – a broad varitety of issues in the domain of language, mental representations of situations in comprehension, and interaction with visual modality

JIMMY'S HALL

Alignment in dialogue
Interlocutors align with each: syntax, lexicon (Branigan et al. 2000; Cleland & Pickering, 2003), hedges (Fox Tree & Clark, 2003), gestures (Henderson & Ferreira 2004), etc.
UEA

Training

- Tobii Technology Workshop, Stockholm Oct. 27-30, 2014
- Participants (30), partly open for public
- Topics

✓ Career development (experts)

✓ Knowledge sharing (fellows)

✓ Hands-on training

✓ Combined with an eye-tracking course (open to public)

- Generic skills trained – workshop organised by the fellows

Training – final remarks

- All ITN fellows (without exception) have attended all training events so far and expressed great satisfaction with quality and breadth of training offered
- Additional training opportunities offered by ITN co-ordinating team in areas of interest and need

✓ Dubrovnik, October 7-10, 2013 – «Methodologies for the Linguist of the Future» training school (joint event with NordForsk Research Network and local hosts from Croatia partners in EU CESAR, META-NET/SHARE, Multilingual Europe Technology Alliance)

Training – final remarks

- ✓ ESF Research Network NetWordS – 2nd NetWordS Summer School «Words: Structure, meaning, acquisition, processing», hosted by NTNU Trondheim, Aug. 4-9, 2014
- ✓ NordForsk late Summer School «Topics in Linguistics», Nyborg, Sept. 15-18, 2014 (*Syntactic Theory, First and Second Language Acquisition, Language and Mind: The experimental perspective*)
- ✓ Eye-link hands-on course, NTNU, Sept. 2014
- ✓ Regular courses organised by Tobii
- These events have created a synergy at the level of Nordic and European research, as well as meeting at more ITN locations

Training through research

- All ESRs on target with own individual projects (according to Career Development Plans)
- ✓ Data collection
- ✓ Experimental design
- ✓ Conducting experiments
- ✓ Data analysis
- ✓ Use of a wide range of research methodologies (eye-tracking, EEG, use of testing tools in clinical and language research)
- Strong contribution by private sector partners in identifying training needs and updates on new and future technologies and developments, and career opportunities

Training – generic and transferable skills

- Presentation and dissemination skills
- Organisational skills – organising research seminars, conferences and workshops
- Recruiting participants for experiments and communicating with parents and professionals

Dissemination and impact

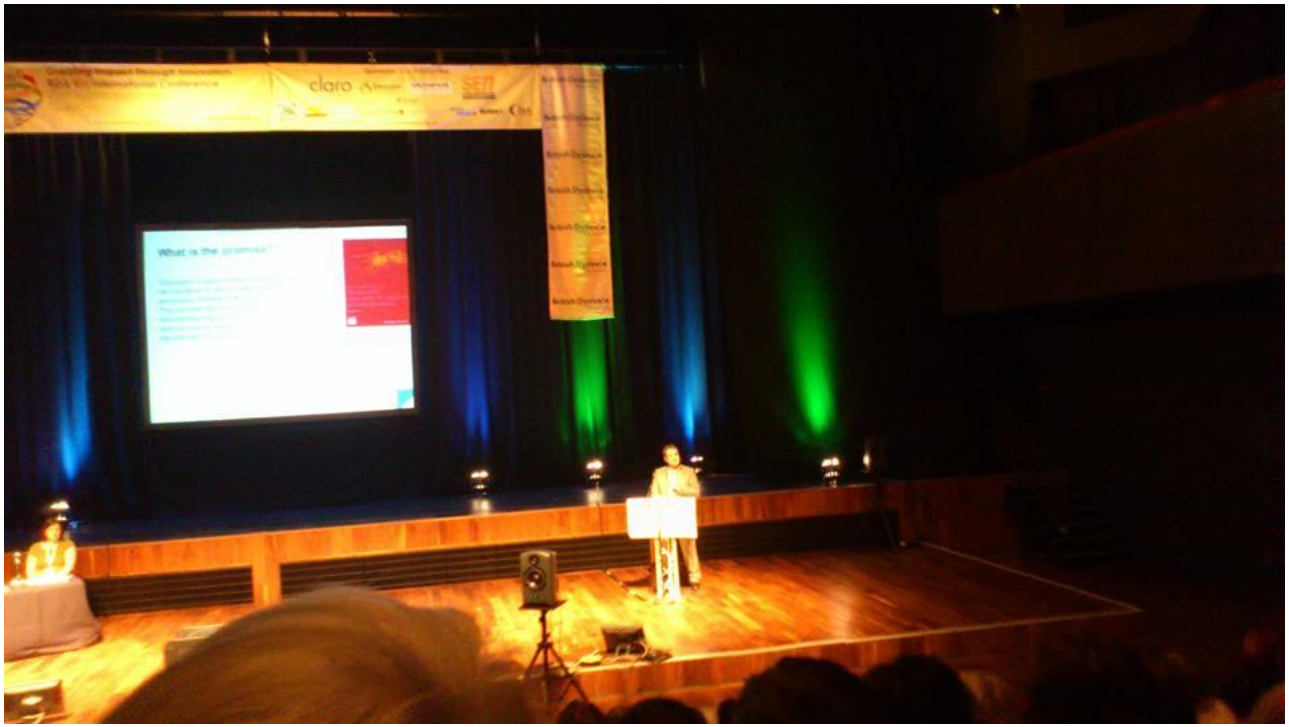
- To research community

✓ Published (and submitted) papers in high-impact professional journals – *Cognition, Psych Science, Cognitive Science, Frontiers in Human Neuroscience, Behavioural Brain Research, Neurocase*

✓ Many accepted talks and posters at key conferences and workshops – *International Association for Cognitive Semiotics* (Lund), *International Congress of the Education of the Deaf* (Athens), *FENS* (Italy), *Cell Symposia: Translational Neuroscience* (Arlington, Virginia, USA)

Dissemination and impact

- Participation by PIs from the ITN in numerous professional conferences (BDA keynote lecture, Talcott)



Dissemination and impact

- Outreach

✓ National media, PanEuropean Networks Magazine «Science & Technology», 3 popular articles (2 written by the ESR fellows)

✓ Numerous interviews in local media

✓ Professional and popular presentations of the project – NetWordS Network Conference, Toulouse, December 2012; Vienna Academy of Sciences, Norwegian Research Council event, Oslo, November 2013

✓ Featured in a Norwegian Research Council Brochure for Horizon 2020, Excellent Science Pillar

Forskningsrådet

Fremragende forskning i Horisont 2020

Kontaktpersoner

– Det er bare å kontakte NCP-ene. De er hyggelige og har tilgang til et annet nettverk av informasjon enn det vi har i fagmiljøene. I søknadsprosessen er det også viktig å bruke EU-rådgiverne på institusjonen som fyller rommet mellom fagmiljøene og det NCP-ene kan bidra med. Det skaper god synergi mellom forskere og forskningsadministrasjon så vi sammen yter best, sier professor Mila Vulchanova leder av et forskerskolenetteverk, et Initial Training Network i Marie Curie actions.

Foto: Albert H. Collett, Universitetsavisa

National Contact Points (NCP)

Det europeiske forskningsrådet (ERC)
Per-Ivar Høvring
Per Magnus Kommandantvold

Marie Skłodowska-Curie Actions (MSCA)
Thorbjørn Gilberg
Per Magnus Kommandantvold

Fremtid og nye teknologier (FET)
Cecilie Anita Mathiesen

Forskningsinfrastruktur (RI)
Solveig Flock
Roar Skålin
Odd-Ivar Eriksen

Dissemination and impact

- An updated project web-site (maintained by NTNU)
- Student discussion forum and social networking (Facebook website)
- Public outreach via national and Pan-European public events – Researchers Night (NTNU); Open Day (Seville); The British Science Festival
- Talks and contacts with Parent Interest organizations
- Volunteer work for Associations (stakeholders)

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PicCOLLAGE

Networking

- High level of networking across participating groups
- ✓ Secondments – NTNU/Bielefeld; NTNU/Tobii; NTNU/US; SDU/East Anglia; Aston/NTNU; US/NTNU; UBI/Erasmus; UBI/USAAR; UBI/Tobii; NTNU/Lingit
- ✓ Active co-supervision – joint supervision across partners
- ✓ PIs are planning spin-offs and new projects
- ✓ The senior staff have all taught classes at training events
- Co-tutelle/joint degree co-operation – NTNU and University of Seville

Management

- ITN managed by co-ordinator team together with Steering Board
- Steering Board – all PIs, 3 ITN fellow reps (Dorota Wohlrapp, Friedrike Voss and Harmen Gudde), 1 ER rep, and 1 rep for second-level private partners (Acuity, Jon Ward)
- Educational Board – Steering Board + 3 leading experts (Gerry Altmann, Kate Nation and Marta Kutas)

Management

- All events have been used for management and project synergy
- Business meetings – short- and long-term plans
- Coordinators – all partners well-informed of project progress and budget issues/disbursement
- Dedicated finance officer (Hilde Morgård Flaathe, NTNU)
- Managerial team – planning, logistic support and conducting all ITN events and other activities in Network; offer advice and admin support for all partner institutions

Management

- Co-ordinating team ensures alignment across teams in
- ✓ Local procedures (to extent possible)
- ✓ Recruitment
- ✓ Hiring
- ✓ Fellows' rights and responsibilities
- ✓ Placements
- Have responded to additional needs and wishes for training by the fellows
- In contact with fellow reps on the Board for updates and feedback
- Prepare all progress and periodic reports to the REA

Second recruitment stage

- 4 ER positions (Aston, Tobii, FIVAN and USAAR)
- 2 already in place (June, 2014)
- 1 from November, 3rd, 2014
- 1 from December, 1st, 2014
- Slight delay and problems due to

✓ narrowly constrained eligibility cirteria

✓ Specific national regulations and long waiting time for obtaining job permits

✓ Family reasons (moving with family)

Final remarks

Looking forward

to the next 2 years