

# SOCIETAL IMPACT OF RESEARCH ON THE COMPLEXITY OF LANGUAGE IN FRANCE

Mazur-Palandre  
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# CONTEXT

- ASLAN is Advanced Studies on LANguage complexity ; In 2010 our “Laboratory of Excellence” obtained funding for ten years (> 9 million euros)
  - ✓ DDL (Dynamics Of Language)
  - ✓ ICAR (Interactions, Corpora, Learning, Representations) Laboratory

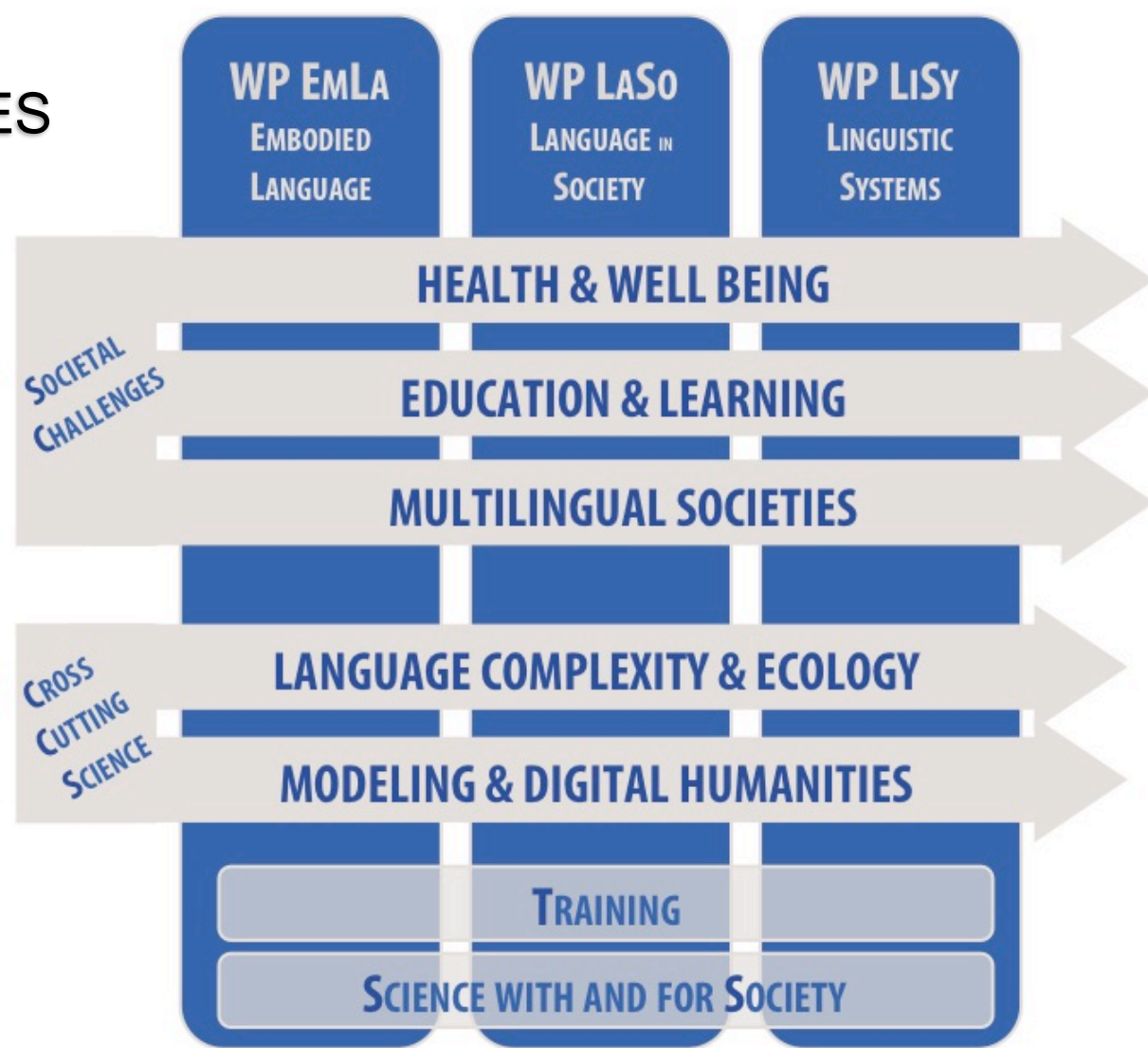


- ASLAN was one of 12 LabEx funded by the University of Lyon during 2011-2019
  - ✓ Renewed funding for 5 years (> 4 million euros) with the integration of the Interactions & Cognition pole of a computer sciences lab, LIRIS (Image and Information Systems Laboratory)
    - Good story to tell...

# ASLAN'S OBJECTIVES

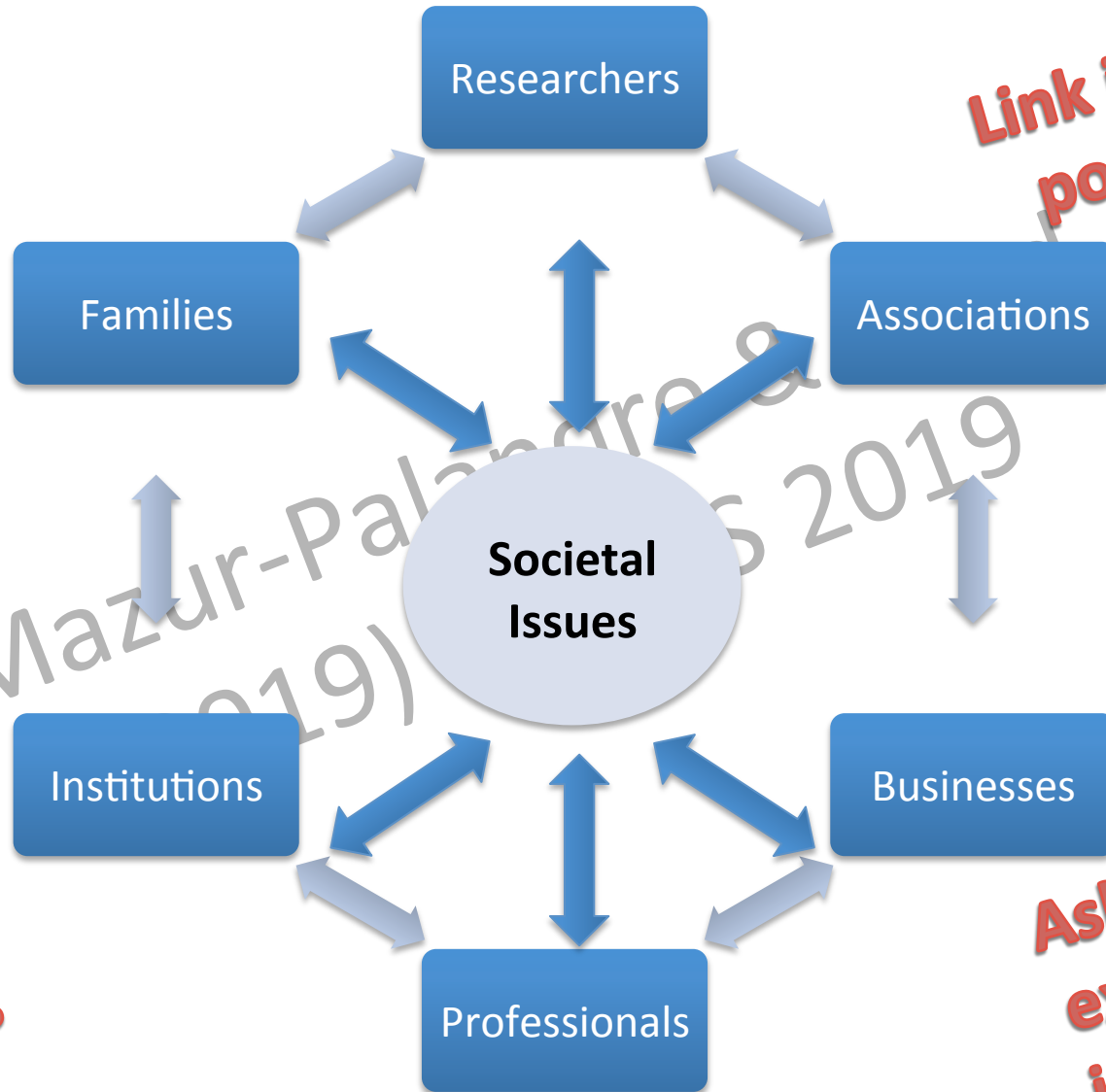
Language is a complex dynamic system

- ✓ How do biological, cognitive, and social factors, and language reciprocally influence each other ?



- How does societal value extend beyond market value (HSS) ?
  - ASLAN examples --> other domains and societal issues in HSS

# STAKEHOLDERS: PLURI-PROFESSIONAL AND *P-I-T*-DISCIPLINARY



**Link interested populations**

**Formalize social demands ; define settings**

**Asking for expertise in ASLAN domains**

# DEFINITION OF SOCIETAL VALUE OF RESEARCH

## Our experience of the last few years implies a redefinition

- ✓ Economic value (patents, start-ups, etc.)
- ✓ Legal value (developing agreements between partners, etc.)
- ✓ Public value (transmission of results to general public)
- ✓ Social value, integrating many dimensions

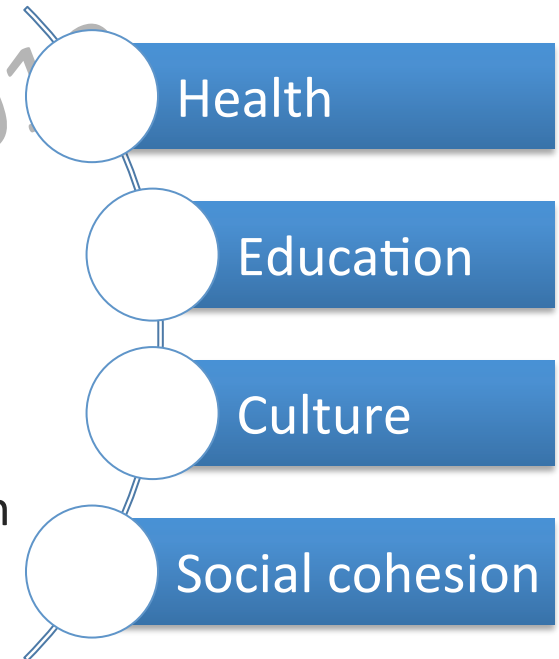
## Around two main frameworks

- ✓ Inreach
  - based on developing an ASLAN identity and a culture of giving value
- ✓ Outreach
  - Communicating and disseminating research results to different audiences and developing and promoting extra-academic interactions and partnerships

# ASLAN INREACH/OUTREACH DEVELOPMENT

❏ Six types of interventions can now be referenced in ASLANs' perimeter:

- ✓ Type #1 – Acculturation programs for inreach
- ✓ Type #2 - Scientific projects in response to complex societal problems
- ✓ Type #3 - Projects for the general public
- ✓ Type #4 - Collaborations with economic actors
- ✓ Type #5 - Training
- ✓ Type #6 - Awareness, evaluation and remediation devices



# TYPE #1 - PROGRAMS TO ACCULTURATE TO GIVING VALUE

## Two internal inreach programs

### ✓ *Les Rencontres Pro d'ASLAN*

- Public: young researchers
- Objective: to show that our academic training can lead to a variety of professions by inviting former students with an extra-academic career



### ✓ *Les Cycles valorisation ASLAN*

- Public: All members of ASLAN
- Objective: highlight the impact of our research in extra-academic domains and the potential for collaborative research with such partners by inviting them to speak about their collaboration with a public research lab



# TYPE #2 - RESPOND TO COMPLEX SOCIETAL ISSUES

- ❏ Objectives: find the most appropriate interlocutor in our scientific community
- ❏ Our role: To understand the request, to think about a collaborative strategy and to help set up a potential project
- ❏ Examples
  - ✓ CIPSY project
    - For a better understanding of the mechanisms and characteristics of information transmission between nurses during team changes
  - ✓ Interaction and migration
    - For a better understanding of the mechanisms of communication between the health service professionals and migrants
      - Academic and extra-academic projects
      - Events for general public
      - New funded project





# TYPE #3 - GENERAL PUBLIC INTERVENTIONS

## Participation in general public events

- ✓ Objectives: perpetuate our participation in events, organized in Lyon by our academic partners
- ✓ Public: according to the event
- ✓ Examples: *Nuit des chercheurs* (2012-2017), *Fête de la Science* (since 2011), *Journée des Dys-* (since 2015), etc.

## Organization of our own public events

- ✓ Objectives: organization of several public events directly related to the scientific activities of our LabEx
- ✓ Public: varied according to the event, the themes discussed and the results presented
- ✓ Examples: Language and Brain (2015), The menu as a cultural object (2017); Dyslexia in Adulthood (2018), "Science, A Woman's Profession" Day (2017, 2018, 2019), etc.



# TYPE #4 - COLLABORATION WITH ECONOMIC ACTORS

- ❏ Objectives: to respond to extra-academic requests and to initiate extra-academic collaborations
- ❏ Public: depends on the extra-academic partner's wishes
- ❏ Examples
  - ✓ The JANUS project had the objective to create mixed objects to serve as argumentation resources in decision-making and in the co-construction of solutions to the problems of innovation in industry
  - ✓ SKILDER: a recent collaboration with the purpose of helping SKILDER to characterize soft skills, by the detection of certain verbal or behavioral units



# TYPE #5 - TRAINING

## Academic training

- ✓ Objectives: to develop an academic training program focused on education, training and transdisciplinarity
- ✓ Public: mainly academic
- ✓ Examples: Education grants, thematic school, Master Class, creation of university modules, etc.



## Professional training

- ✓ Objectives: to offer a catalog of training in several domains and for several types of demands
- ✓ Public: diverse and training are adapted to the demand
- ✓ Examples: ELSE Program (for Education in Second and Foreign Languages) -> a regular seminar, a thematic school, movies, website and a large and varied network

# TYPE #6 - AWARENESS, EVALUATION, REMEDIATION DEVICES

## Objectives

- ✓ To develop training and awareness dispositives for general public (animation films, comics, conferences, workshops, games, etc.)
- ✓ To develop tools for remediation, identification or assessment of difficulties

## Public

- ✓ Training and awareness dispositives: general public
- ✓ Tools for remediation, identification or assessment of difficulties: specific audiences, like health professionals

## Examples

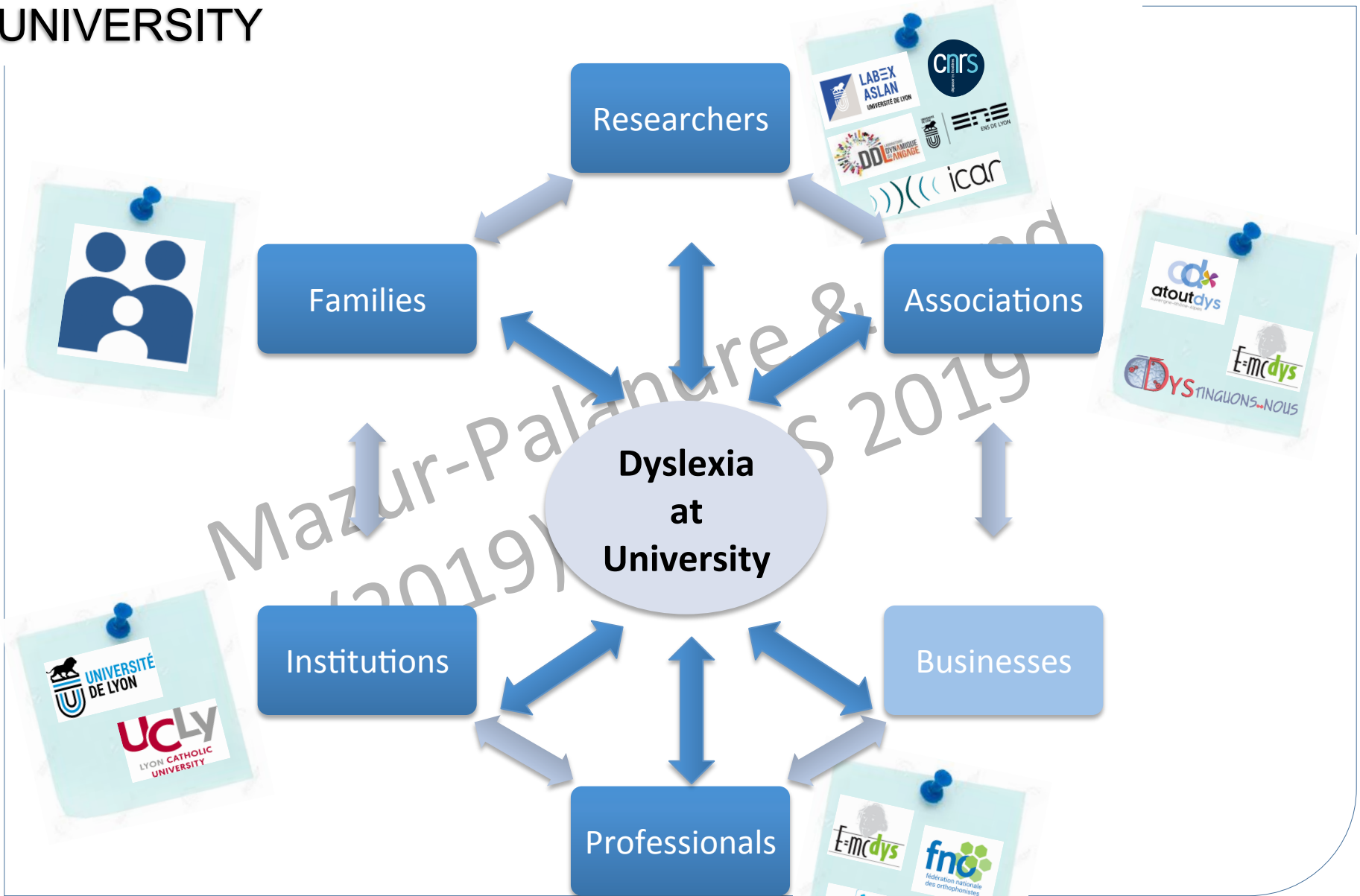
- ✓ *COSMOPOL'EAT: game about linguistic diversity*
- ✓ French Inventory of Communicative Development (IFDC)



# FOCUS ON ONE ASLAN PROJECT: DYSLEXIA AT UNIVERSITY

- ❏ In 2012/2013 at University of Lyon: 33.6% of students declared having language disorders; often it is dyslexia
- ❏ So University of Lyon contacted us to ask if we could help them to have a better understanding of these students and if we had advice
  - ✓ 4 scientific projects : ETUDYS (2014), DYS'R'ABLE (2015), FLEXIDYS (2017-2020) and PArVieDys (since 2019)
- ❏ **Objectives**
  - ✓ Clarify the difficulties of dyslexic students
  - ✓ Compare these elements to objective data from (speech and neuropsychological assessment and psycholinguistic experiments)
  - ✓ Raise awareness and train university stakeholders to develop better care; propose concrete measures to help students

# FOCUS ON ONE ASLAN PROJECT: DYSLEXIA AT UNIVERSITY



Pluri, inter, trans, disciplinary projects

# FOCUS ON ONE ASLAN PROJECT: DYSLEXIA AT UNIVERSITY

## Scientific deliverables: Scientific papers & Conferences

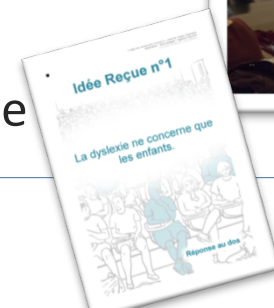
## Training deliverables

- ✓ MOOC « Dyslexic students at University »
  - 2 diffusions: 2018 and 2019  
(10 000 registered members from 86 countries)
- ✓ University lessons especially for dyslexic students (in order to have a better understanding of their dyslexia to facilitate their study)

## Outreach deliverables

- ✓ Game to challenge preconceived ideas,  
Awareness dispositive for student,  
Map to help students and teachers,  
Comics, Teasers, etc.
- ✓ ASLAN strongly engaged locally in this society issue

Etudiants  
**DYSLEXIQUES**  
dans mon amphi  
Comprendre  
& AIDER



# A MODEL FOR TRANSITIONING TOWARDS MORE EFFECTIVE CARE FOR DYSLEXIA AT THE UNIVERSITY LEVEL

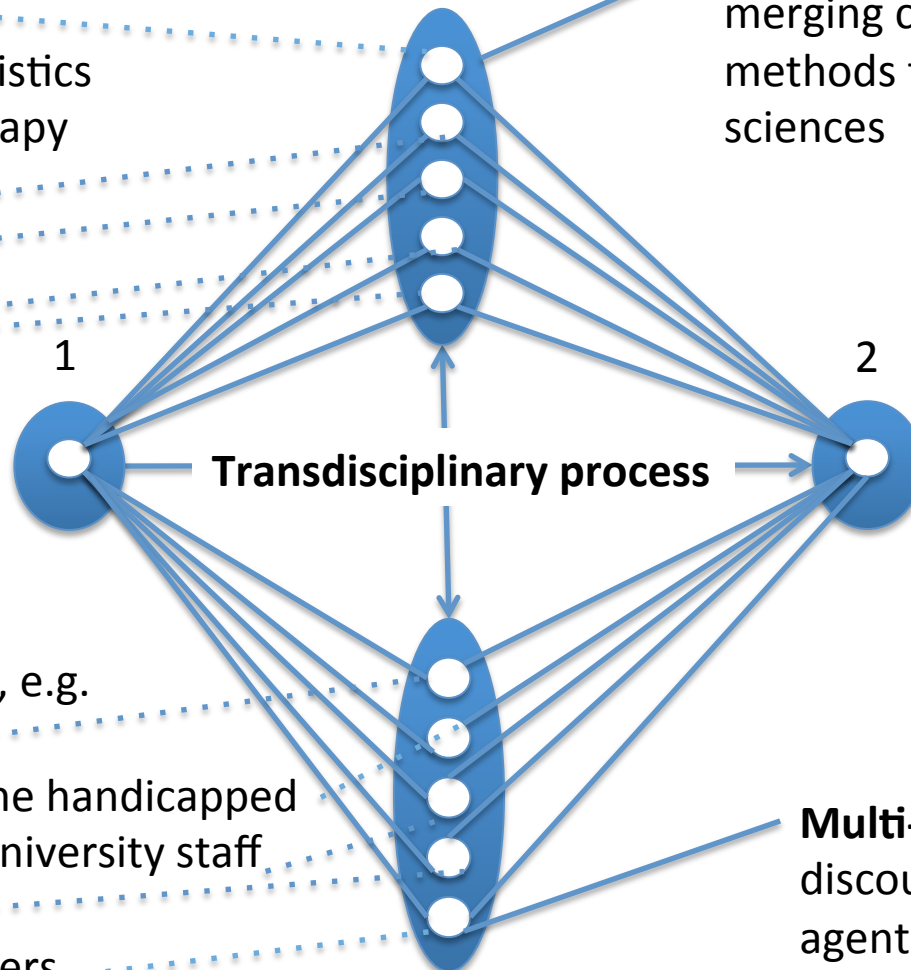
[Interdisciplinary Executive Scientist]

## Disciplines, e.g.

- Linguistics
  - Psycholinguistics
  - Speech therapy
- Neuroscience
- Education
- Health sciences
- Etc.

## Science

**Interdisciplinarity** by merging concepts and methods from difference sciences



1

2

## Transdisciplinary process

Fragmented and poorly managed care for dyslexia today (1)

Broad and collaboratively managed care for dyslexia tomorrow (2)

## Stakeholder groups, e.g.

- Students
- Association for the handicapped
- Professors and University staff
- Parents
- Health practitioners

**Multi-stakeholder** discourse among key agents from practice

## Practice



# AN ASLAN VISION FOR THE INTERDISCIPLINARY EXECUTIVE SCIENTIST

- Facilitate convergence between trajectories of decision making coming from science, but also from practitioners, policy makers and other stakeholders (Scholz 2017; Hendren & Ku, forthcoming)
- ASLAN proposes to *work the arrows* (Hendren), but in relation to some transformative process of society that is put into place
  - Complex societal problems : Health, learning, public policy
- ASLAN finances its Interdisciplinary Executive Scientist
  - Establish the profession locally in other collaborative contexts
  - Lobby on a national level
  - Integrate evaluation criteria for career development

