

**ESF Exploratory Workshop on**

**Exploring the roots of linguistic diversity:  
Bilingual perspectives**

**Bellaterra (Spain), 20-23 September 2010**

**Convened by:**

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**SCIENTIFIC REPORT**

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## 1. Executive summary

The European Science Foundation Exploratory Workshop on “Exploring the roots of linguistic diversity: Biolinguistic perspectives” took place between September 20 and 23, 2010, on the Bellaterra campus of the Universitat Autònoma de Barcelona, 30 minutes away from downtown Barcelona. Specifically, the presentations took place on two consecutive days (September 21 and 22) in the Sala d’Actes of the Building E, the Centre d’Estudis Demogràfics of the Universitat Autònoma de Barcelona.

The goal of the workshop was to bring different perspectives to bear on the issue of linguistic variation in the context of biolinguistics, an emerging interdisciplinary approach to the study of human language and its biological foundations.

The aim was to take concrete steps towards developing a new theoretical framework to understand the nature and limits of language variation, and begin to think of ways of testing it empirically. All the invited participants agreed that the time for such an exploratory meeting had come, largely due to two factors: First, and perhaps foremost, the need to take into the account the growing amount of empirical findings that cast doubt on the standard account of language variation known within theoretical linguistics as the ‘Principles-and-Parameters’ approach (dating back to the late 1970s); and second, the need to assimilate the various perspectives coming from the increased interdisciplinarity that characterizes the emerging biolinguistic framework.

The workshop intended to bring to the attention of linguists (and other scientists interested in the nature of linguistic diversity) new sets of phenomena, methods, hypotheses, and ideas that will lead to a better integration of linguistic theory with other fields trying to uncover the biological basis of language (“biolinguistics” in a broad sense). The hope was for this workshop to provide the beginning of an attempt towards a more fruitful integration (a more productive kind of interdisciplinarity).

Approximately three months before the workshop I circulated a brief set of guidelines among the participants, where I highlighted that this was to be an *exploratory* workshop. I told them that the emphasis ought to be less on results, and more on highlighting better ways to proceed. To make sure that we would at least try to take this first step *during* the workshop, I decided to favor immediate dialog and discussion: each invited speaker was given a one-hour slot, but half of that was devoted to discussion (questions and answers, etc.). The idea was for each invited speaker to present a few key ideas (phenomena, problems, results, etc.) that he/she took to bear on the nature of language variation (root of linguistic diversity)—enough to ‘get the discussion going as it were. It is my impression from having attended many conferences that we all tend to devote too much time to details that can now easily be found in papers online. So I suggested we all try to focus on a few central points and take it from there. The semi-circular layout of the room where the workshop took place was intended to favor the kind of interaction I had in mind.

The general impression during and after the workshop was that this exploratory goal was accomplished. Each presentation lasted about 30 minutes and was followed by substantive discussion that I, as the moderator, had to cut short after 30 minutes. I took advantage of Juliette Blevins’s late cancelation to schedule an extra hour of ‘round-up’ discussion at the end of the first day of the workshop, but I personally felt that an extra day of discussion would not have been too much. All the participants were seen in deep discussion at lunch time

and at dinner, and during coffee breaks, and the meeting concluded with a general impression that the workshop had isolated key issues worth tackling in the near future. The fact that all the participants were brought from the hotel to the conference site as a group, and also went to lunch and dinner as a group surely contributed to the atmosphere of exchange of ideas that was, to me, the defining characteristic of the exploratory workshop.

Excluding general discussion sessions, the workshop consisted of 15 presentations, with a mix of handouts and Powerpoint slides used as presentation support. The linguists in the room thanked me for inviting non-linguists to the conference, as this gave them a chance to interact with members of allied disciplines interested in uncovering the roots of linguistic diversity, and ultimately, the biological foundations of language.

I thought that by bringing together scholars from different fields, the papers and especially the discussions offered a very good illustration of the great possibilities of combining theoretical linguistics, experimental and data-driven linguistics and methods and insights from neurology and biology.

The participants came from 9 different European states, representing 15 universities and research institutions. The participants had been carefully chosen, not solely on the basis of their international reputation, but also on the basis of their presentation skills, and also on the basis of their area of expertise: by bringing together linguistic theorists, linguists working with corpora of empirical data, an expert on language acquisition, another on language pathology, and a biologist with expertise in animal communication, I had intended for the workshop to create a sort of microcosm for what biolinguistics could be.

Let me close this section by pointing out that the meeting was enriched by the presence of the ESF representative, Hanne Russ, who gave a short presentation of the ESF funding opportunities at the very beginning of the workshop, and answered our questions regarding 'the next step' at the end of our meeting. Hanne Russ also took part in the discussion on both days, asking pertinent questions to several participants, and kindly addressing our queries during lunch, dinner, and coffee breaks.

## **2. Scientific content of the event**

After some introductory remarks by the convenor, stressing the need for discussion at this *exploratory* workshop, and a brief presentation by ESF representative Hanne Russ regarding funding opportunities, the meeting began with a presentation by Guillermo **Lorenzo**, who set the stage for the entire meeting by arguing that the traditional Principles-and-Parameters model has little developmental plausibility, and that a more pluralist, multi-factorial approach to language acquisition is called for.

Lorenzo's presentation was followed by Marit **Westergaard's**. This presentation focused on how children deal with variation in the input, paying special attention to acquisition data from Norwegian. Westergaard expressed criticism towards the notion of parameter (there being little evidence for it in the acquisition data), and argued in favor of a model of micro-cues, according to which children are sensitive to fine distinctions in syntax and information structure from early on. Westergaard also paid attention to the lack of (over-)generalization in child data (what it known as 'conservative learning').

The third presentation, by Norbert **Corver**, recapitulated the goals of the workshop that I had circulated before the meeting, and focused on phenomena of morphosyntactic micro-diversity in the Dutch nominal system, the result of an extensive cross-dialectal research project (DiDDD-project at Utrecht University). Corver showed how cross-dialectal patterns of micro-diversity relate to externalization of structure (symbolic representations) by the sensorimotor system, in line with recent minimalist suggestions in the literature, and then turned his attention to child language data. Finally, Corver touched on how various degrees of emotion get grammaticalized, which bears on externalization and its role in generating diversity.

The fourth presentation, by M. Rita **Manzini**, focuses on how the classical locus of variation, the lexicon, is understood theoretically. Manzini took issue with current models of the lexicon, such as Distributed Morphology, and sketched an alternative architecture on the basis of data from Latin. Manzini claimed that in theories in which there are in fact two lexical inventories, one for functional categories and one for non-functional ones, the functional and non-functional lexicons are implicitly or explicitly apportioned to the language faculty narrowly construed and broadly construed respectively. The reduction of the divide that she proposed opens up the possibility that the universal conceptual repertory which is partitioned by language-particular lexicons is part of the broadly construed language faculty in its entirety. In fact, Manzini argued that there is no reason why grammatically relevant categories investigated here should not constitute categorizations in a domain of general cognition.

In the fifth presentation, Tecumseh **Fitch** revisited some of the themes already touched on by Lorenzo, and stressed the need to make clear distinctions among various concepts that linguists appeal to in the context of variation: Faculty of Language in the Narrow Sense vs. Universal Grammar being the distinction that many participants returned to throughout the workshop. Along with Lorenzo's, Fitch's presentation offered many reasons for seeking a biologically sound model of linguistic diversity.

The sixth presentation, by Guiseppe **Longobardi**, approached the issue of language variation from a new angle: Longobardi argued that taking classes of parameters ('parameter schemata') seriously can lead to syntactic classifications of languages that have far greater potential to reconstruct linguistic phylogenies than traditional, lexicon-based classifications.

The final presentation of the first day of the workshop fell to Itziar **Laka**, who offered yet another angle on linguistic diversity. Laka explored the impact of variation in the neural underpinnings of language. Focusing on bilingual situations, and on data from Basque, Laka asked if typologically different grammatical traits involve distinct neural substrates, and offered several case studies from her research group bearing on this question.

The first day ended with a discussion involving all the participants, where some of the main themes of the day were summarized: the biological plausibility of standard theoretical models, the need for a pluralistic approach to linguistic diversity, the need for experimental evidence from acquisition and neurolinguistics, the need to take language change into account, and the need to distinguish between 'Universal Grammar' and the 'Faculty of Language in the Narrow Sense'.

The second day began by a series of talks approaching the issue of variation from the theoretical perspective of the minimalist program. The first of these talks, by Marc **Richards**, asked how a minimally specified Universal Grammar could still capture patterns of variation.

Richards offered several examples of true optionality tolerated by a minimalist grammar that may provide the basis for options that were once called parameter settings. Richards also discussed ways in which emergent points of variation may be distinct from the more traditional notion of parameter. The second talk of the morning session, by Halldor **Sigurdsson**, built a case for a more articulated ‘PF’ component of the grammar responsible for the externalization of syntactic structures. In line with much current work on minimalism, Sigurdsson argued for an invariant syntax, and for a model where variation arises post-syntactically.

The topic of emergent parameters was taken up by Ian **Roberts**, who went beyond the attempt to capture microparameters in terms of underspecified Universal Grammar, and tried to reconstruct the macroparametric effects made famous by Mark Baker and his parameter hierarchy. Roberts succeeded in bringing together considerations from learnability, acquisition, diachrony, and typology, and offered a model that directly addresses the induction problem (the issue of generalization in learning).

Finally, the morning session ended with a presentation by Artemis **Alexiadou**, who offered a wide-ranging survey of case phenomena cross-linguistically, and sought to capture the patterns of variation in this domain by means of a few restrictive parameters.

The afternoon session consisted of two presentations by David **Adger** and Kleantes **Grohmann**, who both made a case for taking sociolinguistic factors into account to understand patterns of variation. Adger also argued for a specific grammatical model that leaves enough room for such sociolinguistic factors to be integrated.

The penultimate presentation was made by Silvia **Martinez-Ferreiro**, who focused on cross-linguistic variation in the domain of language deficit (specifically, agrammatism), a source of data on linguistic diversity that I feel has been neglected by discussions of the nature of variation so far. Martinez-Ferreiro demonstrated that by examining patterns of impairment across typologically closely-related languages such as Catalan, Spanish, and Galician, broader questions regarding the roots of linguistic variation can be addressed from a new perspective.

Finally, Carme **Picallo** did an excellent job in summarizing the major issues that came up during the workshop, and managed to make these bear on current debates in the linguistic literature. By showing the pros and cons of abandoning standard notions like ‘parameters’, Picallo highlighted the main challenge linguists face in the context of biolinguistics: by engaging in an interdisciplinary dialog, how do we maintain the level of specificity that characterize our discipline and that is best illustrated in the domain of linguistic variation?

### **3. Assessment of the results, contribution to the future direction of the field, outcome**

In the final discussion of the workshop there was general agreement that a merging of efforts across European countries, and across disciplines, was necessary to further the emerging biolinguistic enterprise, and that a focus on linguistic diversity was particularly appropriate, as variation is *the* key issue that linguistics and biology have in common. It seemed to all the participants worthwhile to try to take the discussions that took place at the exploratory workshop to the next level, and we envisaged pursuing this further in the context of a Research Network Program or a proposal for a Eurocore. The amount of funding potentially available as well as the special funding situation of Italy were discussed.

The workshop highlighted the need to bring insights from various disciplines to bear on the question of linguistic variation, and the need to adopt a wide range of experimental methods and perspectives to broaden the empirical database, complementing purely theoretical approaches. The advantages of directly interacting with biologists and specialists in other disciplines was also evident.

Currently, the convenor and the participants at the exploratory workshop are in discussion regarding funding actions. They also intend to build a website and post material related to the themes of the workshops (handouts, slides, etc.) there. Finally, the possibility of writing a multi-authored position paper summarizing the major lessons of the workshop is being considered.

## 4. Final programme

### Monday 20 September 2010

*Arrival day*

### Tuesday 21 September 2010

- 09.00-09.20      **Welcome by Convenor**  
**Cedric Boeckx** (ICREA/UAB)
- 09.20-09.40      **Presentation of the European Science Foundation (ESF)**  
**Hanne Ruus** (Copenhagen University, ESF Standing Committee for the Humanities (SCH))
- 09.40-14.00**      **Morning Session**
- 09.40-10.40      **Developmental plasticity and linguistic variation**  
**Guillermo Lorenzo** (U. Oviedo)
- 10.40-11.40      **The Acquisition of Linguistic Variation: Parameters vs. Micro-cues**  
**Marit Westergaard** (U. Tromsøe)
- 11.40-12.00      *Coffee / Tea Break*
- 12.00-13.00      **Variation (and change) are lexical: the reality of the lexicon**  
**M. Rita Manzini** (U. Florence)
- 13.00-14.00      **Micro-variability in the linguistic expression of thought and affect: Some evidence from Dutch**  
**Norbert Corver** (U. Utrecht)
- 14.00-15.30      *Lunch*
- 15.30-20.00**      **Afternoon Session**
- 15.30-16.30      **Unity & Diversity in Human Language: A Biological Perspective**  
**Tecumseh Fitch** (U. Vienna)
- 16.30-17.30      **Grammars, genes, and history**  
**Guiseppe Longobardi** (U. Trieste)
- 17.30-18.00      *Coffee / tea break*
- 18.00-19.00      **Neural representation and processing of linguistic variation**  
**Itziar Laka** (U. Basque Country)
- 21.00              *Dinner*

### Wednesday 22 September 2010

- 09.40-14.00**      **Morning Session**
- 09.40-10.40      **The fixing problem**  
**Marc Richards** (U. Leipzig)
- 10.40-11.40      **On materialization**  
**Halldor Sigurdsson** (U. Lund)

11.40-12.00	<i>Coffee / Tea Break</i>
12.00-13.00	<b>Reconciling Macro- and Microparametric Variation</b> <b>Ian Roberts</b> (U. Cambridge)
13.00-14.00	<b>Case and Universal Grammar</b> <b>Artemis Alexiadou</b> (U. Stuttgart)
14.00-15.30	<i>Lunch</i>
<b>15.30-20.00</b>	<b>Afternoon Session</b>
15.30-16.30	<b>Choice, chance and necessity: variation and stability in grammar</b> <b>David Adger</b> (Queen Mary, U. London)
16.30-17.30	<b>The Socio-Syntax of Development: A View from the Gen-CHILD Project</b> <b>Kleanthes K. Grohmann</b> (U. Cyprus)
17.30-18.00	<i>Coffee / tea break</i>
18.00-19.00	<b>On the informativeness of agrammatism for linguistic variation</b> <b>Silvia Martinez Ferreiro</b> (UAB)
19.00-20.00	<b>Presentation 8: Where to go from here</b> <b>Discussion on follow-up activities/networking/collaboration</b> monitored by <b>Carme Picallo</b> (UAB)

## Thursday 23 September 2010

Morning *Departure*



## 5. Final list of participants

- **David Adger** (Queen Mary, U. London)
- **Artemis Alexiadou** (U. Stuttgart)
- **Norbert Corver** (U. Utrecht)
- **Tecumseh Fitch** (U. Vienna)
- **Kleanthes K. Grohmann** (U. Cyprus)
- **Itziar Laka** (U. Basque Country)
- **Giuseppe Longobardi** (U. Trieste)
- **Guillermo Lorenzo** (U. Oviedo)
- **M. Rita Manzini** (U. Florence)
- **Silvia Martinez Ferreiro** (UAB/U Pompeu Fabra)
- **Carme Picallo** (UAB)
- **Marc Richards** (U. Leipzig)
- **Ian Roberts** (U. Cambridge)
- **Halldor Sigurdsson** (U. Lund)
- **Marit Westergaard** (U. Tromsø)

## 6. Statistical information on participants

The participants:

- came from 9 different European states (4 from Spain, 2 from Germany, 2 from the United Kingdom, 2 from Italy, 1 from Norway, 1 from Sweden, 1 from Austria, 1 from The Netherlands, and 1 from Cyprus)
- representing 15 universities and research institutions.

There was a good gender balance (9 male researchers, 6 female researchers [the 7<sup>th</sup> female researcher invited had to cancel, due to personal reasons], as well as a good mix of junior and more established scholars (roughly half and half).

Fields of study represented:

- Theoretical Linguistics
- Linguistic Typology
- Language Acquisition
- Language Pathology/Clinical Linguistics
- Evolution Biology
- Ethology
- Comparative Psychology