**Research Plan**

Autism Spectrum Disorder (ASD) is characterized as having “persistent deficits in social communication and social interaction”.1 It is therefore not surprising that pragmatics (i.e., the social use of language) is a domain of significant impairment.2-6 However, not all areas of pragmatics seem to be impaired.7-9 Although grammar is traditionally assumed to be intact in children with ASD who have fluent speech, recent research starts to indicate difficulties in this area, too.10-16 Besides pragmatic, and possibly grammatical deficits, children with ASD are known to have difficulties, for example, in following instructions, or comprehending a text.17,18 Nevertheless, the exact language (in)abilities of children with ASD are far from clear, and only recently some theoretical linguists have started to become interested in them.3-28 As a result, the underlying causes of language problems in ASD are largely unknown, preventing the development of adequate intervention.

The LACA collaboration intends to precisely map and understand the (process of) grammatical and pragmatic (in)abilities of children with ASD cross-linguistically, with different off-line and on-line (eye-tracking, EEG) techniques. Moreover, it investigates potential relationships with (the development of) other cognitive functions, including Theory of Mind, Executive Function, Intelligence, and Coherence, and compare ASD language (in)abilities to those of other pathological populations, including Specific Language Impairment.

**Importance/added value/urgency**

**Importance**: The results of the proposed collaborative research will contribute to our understanding (and, hopefully remediating) why children with ASD experience many break-downs in communication, and underperform on reading comprehension. Moreover, it will provide answers to the question as to how language is organized in the brain and how it interacts with other cognitive abilities, serving a central, fundamental goal in the Humanities, namely, understanding (the development of) human cognition.

**Added value:** All members are leading researchers in the fields of theoretical linguistics and language acquisition, interested in the language (in)abilities of individuals with ASD. However, their expertises in terms of linguistic-theoretical phenomena and experimental techniques vary, as do their languages of investigation. Bringing together Europe’s leading researchers creates the unique opportunity to a) streamline methods and therefore to compare results of (baseline) studies in different languages, and b) integrate the results on different linguistic phenomena with different techniques into one description and explanation of the nature and development of language abilities in children with ASD in different languages.

**Urgency**: To our knowledge, the proposed cross-country and cross-linguistic joint efforts on the investigation of linguistic (in)abilities in individuals with ASD have not been made to date. As children with ASD increasingly participate in regular education in many countries, it is extremely urgent that their language (in)abilities are mapped and understood, so that, ultimately, teachers and caregivers can be prepared to educate this population adequately. The proposed international network of linguists with a strong theoretical background is the ideal team to tackle this problem.

**Intended results**

* Develop and submit a fully elaborated international research proposal that qualifies for the framework of Horizon 2020, HERA or other European research schemes (including bilateral, trilateral or quadrilateral schemes).
* Explore possibilities for setting up a joint graduate studies program to support training and research of PhD students at two (or more) partner universities (for example, Marie Curie Initial Training Network or Erasmus Mundus program). If the group is eligible for such schemes, the second aim is to develop and submit such a proposal, which would effectively constitute a structurally embedded international network.
* Organize one or more international academic Workshops/Symposia on Linguistic-theoretical perspectives on language (in)abilities in children with ASD.
* Organize meetings with practitioners to identify questions from society regarding language (development) in children with ASD.
* Organize short research exchanges to develop pilot studies.
* Set up a website as a platform for communication between researchers and practitioners in the field of language an ASD.
* Set up a database of experimental materials.
* Several publications based on planned (pilot) experiments with shared experimental methodology.

**References**

1. American Psychiatric Association (2013). *Diagnostic and Statistical Manual of Mental Disorders* (5th ed.). Washington, DC: American Psychiatric Association.
2. Baron-Cohen, S. (1988). Social and pragmatic deficits in autism: Cognitive or affective? *Journal of Autism and Developmental Disorders*, 18(3). 379-402.
3. Eigsti, I.-M., de Marchena, A., Schuh, J. & Kelley, E. (2011). Language acquisition in autism spectrum disorders: A developmental review. *Research in Autism Spectrum Disorders*, 5(2). 681-691.
4. **Marinis**, T., **Terzi**, A., Kotsopoulou, A. and Francis, K. (2013) Pragmatic abilities of high-functioning Greek-speaking children with autism. *Psychology* 20: 321-337.
5. **Novogrodsky**, R. (2013). Subject-pronoun use by Children with Autism Spectrum Disorders (ASD). *Clinical Linguistics and Phonetic*, 27(2), 85-93.
6. **Schaeffer**, J. (to appear). Linguistic and other cognitive abilities in children with Specific Language Impairment as compared to children with High-Functioning Autism. *Language Acquisition.*
7. Chevallier, C., Wilson, D., Happé, F. & **Noveck**, I. (2010) Scalar inferences in Autism Spectrum Disorders. *Journal of Autism and Developmental Disorders*, 40 (9), 1104-1117.
8. Kuijper, S., Hartman, C. & **Hendriks**, P. (2015). Who is he? Children with ASD and ADHD take the listener into account in their production of ambiguous pronouns. *PLoS ONE* 10:7, e0132408.
9. **Kissine**, M., Cano-Chervel, J., Carlier, S., De Brabanter, P., Ducenne, L., Pairon, M.-C., Deconinck, N., Delvenne, V., and Leybaert, J. (2015). [Children with Autism Understand Indirect Speech Acts: Evidence from a Semi-Structured Act-Out Task](http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0142191). *PLoS ONE,* 10 (11), e0142191.
10. Eigsti, I.-M. & Bennetto, L. (2009). Grammaticality judgments in autism: Deviance or delay. *Journal of Child Language*, 19, 1-23.
11. **Perovic**, A., Modyanova, N. & Wexler, K. (2013). Comprehension of reflexive and personal pronouns in children with autism: A syntactic or pragmatic deficit? *Applied Psycholinguistics* 34 (4): 813-835.
12. Zebib, R., **Tuller**, L., **Prévost**, P., & Morin, E. (2013). Formal language impairment in French-speaking children with ASD: A comparative ASD/SLI study. In Stavrakaki, S., Lalioti, M. & Konstantinopoulou, P. (eds), *Advances in language acquisition*, 472-484. Newcastle: Cambridge Scholars Publishing.
13. **Terzi**, A., **Marinis**, T., Kotsopoulou, A., and Francis, K. (2014). Grammatical abilities of children with autism. *Language Acquisition* 21: 4-44.
14. Durrleman, S., Hippolyte, L., Zufferey, S., Iglesias, K., Hadjikhani, N. (2014). Complex Syntax in Autism Spectrum Disorders: A Study of Relative Clauses*. International Journal of Language & Communication Disorders, 1-8.*
15. Janke, V. & **Perovic**, A. (2015). Intact grammar in HFA? Evidence from control and binding. *Lingua* 164, 68-86.
16. **Tuller**, L., Ferré, S., **Prévost**, P., Barthez, M.-A., Malvy, J., & Bonnet-Brilhault, F. (in press). The effect of computational complexity on the acquisition of French by children with ASD. In L. Naigle (ed.), *Innovative investigations of language in Autism Spectrum Disorder*. Berlin: de Gruyter.
17. Goldstein, G., Minshew, N. & Siegel, D. (1994). Age differences in academic achievement in high-functioning autistic individuals. *Journal of Clinical and Experimental Neuropsychology*, 16, 671–680.
18. Happé, F. (1997). Central coherence and theory of mind in autism: Reading homographs in context. *British Journal of Developmental Psychology*, 15, 1–12.
19. **Noveck**, I.A., Guelminger, R., Georgieff, N. & Labruyere, N. (2007). What autism can tell us about Every…not sentences. *Journal of Semantics*, 24,(1), 73-90.
20. Chevallier, C., Wilson, D. Happé, F., **Noveck**, I.A. (2009) From acoustics to grammar: Perceiving and interpreting grammatical prosody in adolescents with Asperger Syndrome. *Research in Autism Spectrum Disorders*, 3(2), 502-516.
21. **Kissine**, M. (2012). [Pragmatics, cognitive flexibility and autism spectrum disorders](http://onlinelibrary.wiley.com/doi/10.1111/j.1468-0017.2011.01433.x/abstract), *Mind & Language*, 27 (1), 1-28.
22. **Schaeffer**, J., Van Witteloostuijn, M., and De Haan, D. (2014). Article choice in children with High Functioning Autism (HFA) and in children with Specific Language Impairment (SLI). In Anita Auer & Björn Köhnlein (eds.) *Linguistics in The Netherlands 2014*. Amsterdam/Philadelphia: John Benjamins, 107-128.
23. **Terzi**, A., **Marinis**, T., Bafa, D. and Francis, K. (2015). Difficulties with object clitics in high functioning children with autism. In *S. Durrlemann & H.* Delage (eds.) *Handbook for Professionals: Language and Cognition in Child Autism*, 47-50. Geneva, Switzerland: De Boeck. [In French]
24. **Novogrodsky**, R., & Edelson, R. L. (2015). Ambiguous pronoun use in narratives of children with Autism Spectrum Disorders. *Child Language teaching and Therapy*, 1-12.
25. Janke, V. & **Perovic**, A. (to appear) Advanced Syntax and Primary Pragmatics in Children with ASD. In Naigles, L. (Ed). *Innovative Investigations of Language in Autism. Language and the Human Lifespan series*. American Psychological Association and Walter de Gruyter.
26. Creemers, A., and **Schaeffer**, J. (2015). Grammatical and pragmatic properties of the DP in children with Specific Language Impairment (SLI) and in children with High-Functioning Autism (HFA). In: Jenny Audring & Björn Köhnlein (eds.) *Linguistics in The Netherlands 2015*. Amsterdam/Philadelphia: John Benjamins, 16-32.
27. **Terzi**, A., **Marinis**, T. and Francis, K. (to appear). The interface of syntax with pragmatics and prosody in children with Autism Spectrum Disorders. *Journal of Autism and Developmental Disorders*.
28. **Terzi**, A., **Marinis**, T. and Francis, K. (to appear). Syntax and its interfaces at the low and high ends of the autism spectrum. In A. M. diSciullo (ed.) *Biolinguistics*.