

Evidence from Greek for the Locus Preservation Hypothesis

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Grammatical markers are not uniformly impaired across languages, even when the target populations share a diagnosis and the marker in question is grammaticalized in a similar way. The aim of this work is to identify similarities across the atypical manifestations of grammatical markers in Greek-speaking populations with Specific Language Impairment (SLI), Down Syndrome (DS), and Autism Spectrum Disorder (ASD). Focusing on the linguistic profiles of speakers of two varieties of Greek, Standard and Cypriot, shared loci of impairment are identified and different domains of grammar are shown to be more susceptible to impairment than others.

SLI is a developmental disorder characterized by delays in the process of language acquisition. For Greek, the nature of SLI was described in terms of morphosyntactic errors (Clahsen & Dalalakis 1999). Reviewing the relevant literature, we aim to decompose this generic label into more specific markers. For example, Tsimpli & Stavrakaki (1999) identify object clitics as a ‘sensitive’ marker in Standard Greek (also Tsimpli 2001), but rates of omission vary significantly from study to study: from 96% in Tsimpli & Stavrakaki (1999) to 30% in Mastropavlou (2006) to 4% in Stavrakaki (2002). More recent studies challenge the status of clitic production as a clinical marker for SLI both in Standard (Manika et al. 2010) and Cypriot Greek (Theodorou & Grohmann 2015). Moreover, the grammatical status of the marker in question as ‘syntactic’ versus ‘morphological’ needs to be further discussed. Other markers that figure in studies on SLI in Greek include omitted complementizers. Mastropavlou & Tsimpli (2011) describe an interesting phenomenon of omitted complementizers, but the selectional requirements of these complementizers remain operative. This finding invites the hypothesis that omitted markers do not entail impaired syntax in SLI (Leivada 2015).

The grammar of DS is particularly challenging in defining domains of grammar that are invariant across atypical cognitive phenotypes. The reason is the great diversity of syntactic, phonological, and morphological markers that are claimed to be impaired in DS populations cross-linguistically. For example, Perovic (2001) reports varying degrees of correct interpretation of Binding Principle A in English-speaking adolescents with DS. At the same time, some of her findings suggest that the problem may boil down to quantified NPs in her stimuli and not to the binding of reflexives per se. Studies in Standard Greek DS show higher rates of accuracy in the use of reflexives than what has been argued in the literature for English DS (Stathopoulou 2009). The findings of Christodoulou (2011) and Christodoulou & Grohmann (2014) from Cypriot Greek suggest that the non-target markers in DS mostly pertain to the externalization component of language (phonetics and morphophonology).

Studies on Greek-speaking populations with ASD have largely focused on the pragmatic abilities. Vogindroukas (2005) and Vogindroukas & Zikopoulou (2011) report features such as production of out-of-context utterances, stereotypicality, absence of politeness markers, and difficulties in figurative language. Pragmatics is evidently a vulnerable domain in Greek autism in line with what has been reported for other languages. Examining the morphosyntactic profile of this population, Terzi et al. (2012, 2014) found that the performance of their subjects was high in all types of pronouns: strong pronouns, clitics, and reflexives. The lowest accuracy rate was found for clitics, but still well above chance (88.3%). Since clitics are licensed under specific pragmatic conditions, it is important to take into account another observation from Terzi et al. (2014): The children with ASD performed lower than neurotypical controls in the pragmatics baseline task. This indicates that impaired pragmatics may affect the production of certain morphological markers.

By comparatively reviewing the literature from three different disorders in Greek-speaking populations, we observe that certain markers stand out as particularly susceptible to impairment across disorders, while others are consistently spared. Following Leivada (2015), we capture the relevant distribution through the Locus Preservation Hypothesis, according to which syntactic operations appear to be universally preserved across atypical cognitive phenotypes.

References

- Christodoulou, C. 2011. Cypriot Greek Down Syndrome: Their Grammar and Its Interfaces. Doctoral dissertation, The University of British Columbia.
- Christodoulou, C. & K. K. Grohmann. 2014. Morphosyntactic issues in the development of Cypriot Greek individuals with Down Syndrome: A preliminary analysis. *Proceedings of BUCLD 38 – Supplement*, 1-20.
- Clahsen, H. & J. Dalalakis. 1999. Tense and agreement in Greek SLI: A case study. *Essex Research Reports in Linguistics* 24, 1-25.
- Leivada, E. 2015. The Nature and Limits of Variation across Languages and Pathologies. Doctoral dissertation, Universitat de Barcelona.
- Manika, S., S. Varlokosta & K. Wexler. 2010. The lack of omission of clitics in Greek children with SLI: An experimental study. *Proceedings of BUCLD 35*, 427-439.
- Mastropavlou, M. 2006. The Effect of Phonological Saliency and LF-Interpretability in the Grammar of Greek Normally Developing and Language Impaired Children. Doctoral dissertation, Aristotle University of Thessaloniki.
- Mastropavlou, M. & I. M. Tsimpli. 2011. Complementizers and subordination in typical language acquisition and SLI. *Lingua* 121, 442-462.
- Perovic, A. 2001. Binding principles in Down syndrome. *UCL Working Papers in Linguistics* 13, 423-455.
- Stathopoulou, N. 2009. The Linguistic Profile of Greek Individuals with Down Syndrome: Evidence from Syntactic and Morphological Phenomena. Doctoral dissertation, University of Essex.
- Stavrakaki, S. 2002. A-bar movement constructions in Greek children with SLI: Evidence for deficits in the syntactic component of language. In E. Fava (ed.), *Clinical Linguistics: Theory and Applications in Speech Pathology and Theory*, 131-153. Amsterdam: John Benjamins.
- Terzi, A., T. Marinis, A. Kotsopoulou & K. Francis. 2014. Grammatical abilities of Greek-speaking children with autism. *Language Acquisition* 21, 4-44.
- Terzi, A., T. Marinis, K. Francis & A. Kotsopoulou. 2012. Crosslinguistic differences in autistic children's comprehension of pronouns: English vs. Greek. *Proceedings of BUCLD 36*, 607-619.
- Theodorou, E. & K. K. Grohmann. 2015. Object clitics in Cypriot Greek children with SLI. *Lingua* 161, 144-158.
- Tsimpli, I. M. & S. Stavrakaki. 1999. The effects of a morphosyntactic deficit in the determiner system: The case of a Greek SLI child. *Lingua* 108, 31-85.
- Tsimpli, I. M. 2001. LF-interpretability and language development: A study of verbal and nominal features in Greek normally developing and SLI children. *Brain & Language* 77, 432-448.
- Vogindroukas, I. & O. Zikopoulou. 2011. Idiom understanding in people with Asperger syndrome/high functioning autism. *Revista da Sociedade Brasileira de Fonoaudiologia* 16(4), 390-395.
- Vogindroukas, I. 2005. Πραγματολογικές δεξιότητες σε παιδιά με αυτισμό [Pragmatic abilities in children with autism]. *Ψυχολογία* 12(2), 276-292.