Online implicit learning of nonadjacent dependencies in children with and without Specific Language Impairment

Lammertink, I.L.; van Witteloostuijn, M.T.G.; Boersma, P.P.G.; Wijnen, F.; Rispens, J.E.

Citation for published version (APA):
Online implicit learning of nonadjacent dependencies in children with and without Specific Language Impairment

Imme Lammertink1, Merel van Witteloostuijn1, Paul Boersma1, Frank Wijnen2 & Judith Rispens1
University of Amsterdam1, Utrecht University2

Background

**NADL**: Nonadjacent dependency learning

Examples: *He walks; Yesterday we walked*

**Sensitivity to NADs** is fundamental to language acquisition [1]

Measuring implicit **NADL in children**:

> **Offline**: accuracy on grammaticality judgment task
> **Online**: response times (RT) to NAD-rule items versus non-NAD-rule items reflect learning dynamics [2,3,4]

**NADL in SLI**:

> **Offline**: not as effective as in people without SLI [5]
> **Online**: no data available as yet
> **Button press**

Target NonTarget Filler

RQ: Do the speed and degree of learning nonadjacent dependencies differ between children with and without SLI?

**NADL (Word Monitoring)**

**Preliminary Results**


**Preliminary analysis (lmer)**: No evidence for a difference in RT between rule and no-rule blocks between TD and SLI group. Block*Sample: estimate = 89.57; z = 1.67. Large individual differences in both groups.

**Conclusion**

Visual inspection suggests different NADL dynamics between children with and without SLI. Preliminary analysis do not support this claim, however.

There exist large individual differences in children’s sensitivity to nonadjacent dependencies.

More research is needed to evaluate how NADL relates to language performance and developmental language disorders.

**E-mail**: i.l.lammertink@uva.nl; **website**: www.progracy.com

**References**


**Acknowledgements**

Recruitment SLI: Viertaal; Pento Amersfoort; Auris Leiden, Haarlem & Breda, VOCE Oudervereniging TOS. Recruitment and testing elementary schools TD: Binnenmeer, Startnest & Wheermolen, Darlene Keydeniers & Iris Broedelet