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):

General rights
It is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), other than for strictly personal, individual use, unless the work is under an open content license (like Creative Commons).

Disclaimer/Complaints regulations
If you believe that digital publication of certain material infringes any of your rights or (privacy) interests, please let the Library know, stating your reasons. In case of a legitimate complaint, the Library will make the material inaccessible and/or remove it from the website. Please Ask the Library: https://uba.uva.nl/en/contact, or a letter to: Library of the University of Amsterdam, Secretariat, Singel 425, 1012 WP Amsterdam, The Netherlands. You will be contacted as soon as possible.
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

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

Methods

Online Tests Phase (Word Monitoring)

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

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

Online Tests Phase (Word Monitoring)

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

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

Online Tests Phase (Word Monitoring)

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

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

Online Tests Phase (Word Monitoring)

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

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

Online Tests Phase (Word Monitoring)

Preliminary Results

Online NADL (word monitoring)


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.

Visualization: TD children: disrupted by removal of rules. SLI: no disruption

Contact

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

References

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

Online NADL (word monitoring)


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.

Visualization: TD children: disrupted by removal of rules. SLI: no disruption

Contact

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

References

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