FACULTY OF MEDICINE AND HEALTH SCIENCES

A LONGITUDINAL STUDY OF REPAIR STRATEGIES IN PRIMARY PROGRESSIVE APHASIA USING CONVERSATION ANALYSIS

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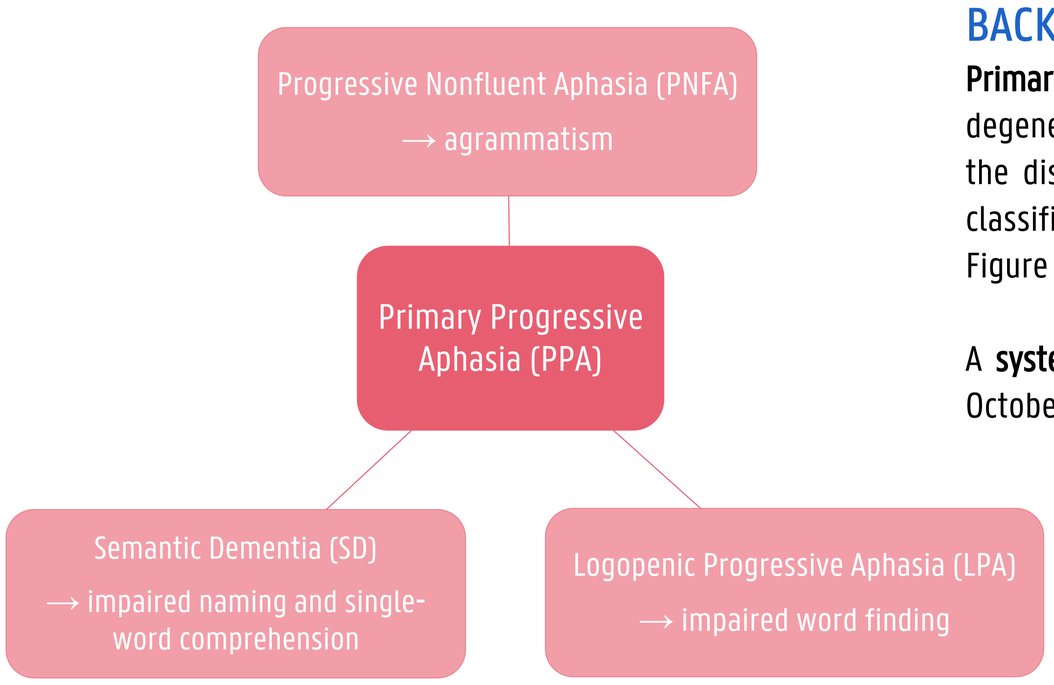

Figure 1: Consensus taxonomy and main linguistic correlates of the three primary progressive aphasia subtypes (Gorno-Tempini et al., 2011).

BACKGROUND

Primary progressive aphasia (PPA) is a spectrum of neurological syndromes characterized by an isolated degeneration of language capabilities. Other cognitive domains remain intact during the first two years of the disease progression. In 2011, Gorno-Tempini et al. established a consensus taxonomy of PPA. This classification differentiates three types of PPA, each characterized by specific linguistic correlates (see Figure 1).

A **systematic review** on spontaneous speech, conversation and interaction in PPA was conducted until October 2015. Following results were found:

- The characteristics of **spontaneous speech** of each PPA subtype were similar to the known consensus criteria.
- Differentiation between PPA subtypes for **conversation and interaction** was not possible due to the scarcity of publications on the subject.
- The **longitudinal evolution** of spontaneous speech was primarily characterized by increased severity of initial symptoms. No information on the longitudinal evolution of conversation and interaction in PPA was found.

These findings were used as basis for a **preliminary longitudinal study on conversational quality** in PPA. The study was exploratory in nature and the **aim** was to map the evolution of the use of repair strategies during the first two years of disease progression using conversation analysis (CA) (Schegloff, Jefferson & Sacks, 1977).

METHOD

Data: patient-therapist conversations

- 2 participants: M.J.G. (PNFA) and R.G. (LPA)
- Videos of initial and follow-up appointments
- Detailed transcription of verbal, paraverbal and nonverbal content (see Figure 2)

Repair: re-establishing the flow of conversation through 4 possible trajectories

1. Self-initiated self-repair (SISR)
2. Self-initiated other-repair (SIOR)
3. Other-initiated self-repair (OISR)
4. Other-initiated other-repair (OIOR)

s.i.s.r. (2)	Pat	#h h h# kheb #e e e# veel aangat gat hè, .h twat (0.6) twas (.) #h:# goed ----------> *P: verbreekt oogcontact (kijkt naar links)* *P: knikt meermaals licht* *P: knikt eenmaal diep*
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Figure 2: Realistic example of transcribed video data, including verbal, paraverbal and nonverbal content (R.G., March 2014).

RESULTS AND DISCUSSION

Quantitative results of analysis of repair strategies in M.J.G. and R.G.

	M.J.G. (PNFA, °1938)			R.G. (LPA, °1937)			
moment	April 2010	March 2011	September 2011	February 2013	September 2013	March 2014	September 2014
duration	1'05"	3'10"	3'10"	3'05"	3'45"	3'25"	3'55"
number of repairs	**11**	**30**	**32**	**17**	**14**	**25**	**22**
SISR (%)	100,0 (11/11)	80,0 (24/30)	90,6 (29/32)	94,1 (16/17)	85,7 (12/14)	88,0 (22/25)	90,9 (20/22)
OISR (%)	0	3,3 (1/30)	0	0	0	0	0
SIOR (%)	0	10,0 (3/30)	3,1 (1/32)	0	0	12,0 (3/25)	9,1 (2/22)
OIOR (%)	0	6,7 (2/30)	6,3 (2/32)	5,9 (1/17)	14,3 (2/14)	0	0

Participant M.J.G.

- Relative decrease of SISR, but increase in relative importance of SISR reformulation
  → self-initiated syntactical reformulation due to awareness of increased agrammatism?
- Inadequate laughter
  → evolution towards pseudobulbar behavior (cfr. FTD)

Participant R.G.

- Higher complexity in repair trajectories
  → increasing severity of core symptoms of LPA?

Systematic review: increased word-finding difficulty in PNFA and LPA

- ➢ M.J.G.: ↑ SIOR and OIOR → shared responsibility
- ➢ R.G.: starting 2014 ↑ SIOR → own initiative

CONCLUSION

These findings demonstrate the evolution in the use of repair strategies throughout the progression of PPA. Though not (yet) generalisable, there are clear indications for differences between patients with PNFA and LPA. Further research within this subject is required for a clearer and more universally applicable view on repair sequences in PPA patients.

REFERENCES

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