

Title: Language symptoms of dementia in an older signing population

Abstract: (incl. example and refs separate in list)

Older people with dementia reveal problems with language as the dementia progresses. In spoken languages these problems appear in various areas such as word finding problems, empty speech, grammatical errors, and inadequate responses (see review in Reilly and Hung (in press) and Reilly, Rodriguez, Lamy and Neils-Strunjas (2010). In a signed language such problems can also be expected to appear, however, since signers are usually bilingual, it may also be expected that signers with dementia will make the wrong language choice for the interaction partner. Little is known to date about the linguistics symptoms of dementia in signers. Instruments for linguistic analysis are still being developed (e.g. Atkinson, Denmark, Woll et al. 2011).

In this exploratory study four older pre-lingually deaf signers with dementia (average age 87 years) living in The Netherlands were compared to a matched control group of four older signers without dementia. The data were taken from a spontaneous conversation with a deaf signing carer who was known to the informants (see example 1 from an older woman with dementia (D2) and the interviewer (I)).

Inadequate responses, that is answers that were not appropriate to the question or echolalic responses, were in both categories significantly more frequent for the individuals with dementia than for the control group. Word-finding difficulties and sign-finding difficulties were not significantly more pronounced in the group with dementia, although there was a trend. The use of fillers was also not significantly different. Both the mean sign and word MLU was smaller in the group with dementia but not significantly so. The percentage of ungrammatical Dutch utterances was significantly higher in the group with dementia. This grammatical analysis was not done for NGT since the variation in adult signing is too large to apply strict criteria in this context. There were no significant differences between the two groups in their use of bimodal utterances but the group with dementia made an inappropriate language choice more often than the control group. With a deaf carer the message needs to be fully accessible through the signed modality but this was less often the case.

Methodologically it is a challenge to take into account the bimodal output of individuals with dementia and to compare these but specific variables have indicated differences even in this small sample that further need exploring in future research.

Example 1

I:	sign	_____y/n
Translation		MIDDAY NICE EAT Did you have a nice meal at midday?
D2:		headnod
spoken		jaja gewoon
Translation		yes, yes, as usual
I:	sign	__wh
Translation		WHAT?
D2:	spoken	gewoon dus
Translation		just as usual
I:	sign	_____wh
Translation		WHAT EAT MIDDAY?
D2:	sign	FORGOTTEN
spoken		weet niet meer vergeten
Translation		I don't remember, I've forgotten
I:	sign	PANCAKES EAT
Translation		we ate pancakes
D2:	spoken	lust wel pannenkoek maar niet altijd
Translation		(I) like pancakes but not always.
I:	sign	MIDDAY OUT GO BENNEKOM INDEX 3B
Translation		You went out to Bennekom in the afternoon
D2:		head nod
I:	sign	_____y/n
Translation		PANCAKES EAT INDEX2 NICE? You ate pancakes. Were they nice?
D2:	spoken	slagroom slagroom
Translation		whipped cream whipped cream
I:	sign	_____y/n
Translation		PANCAKES WITH WHIPPED-CREAM? (You had) pancakes with whipped cream?
D2:	spoken	lekker
Translation		Nice.

References

- Atkinson, J., Denmark, T., Woll, B., Ferguson-Coleman, E., Rogers, K., Young, A., Keady, J., Burn, A., Gaell, R., and Marshall, J. (2011) Deaf with dementia: towards better recognition and services. *Journal of Dementia Care*, 19 (3) 38 - 39.
- Reilly, J. and Hung, J. (in press) Dementia and Communication In *Cambridge Handbook of Communication Disorders*, Cambridge: CUP.
- Reilly, J., Rodriguez, A.D., Lamy, A., and Neils-Strunjas, J. (2010) Cognition, language, and clinical pathological features of non-Alzheimer's dementias: An overview. *Journal of Communication Disorders* 43: 438–452