

Bimodal bilinguals behave almost like unimodal bilinguals: Phonology of Icelandic Sign Language

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Mittwoch,
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17:00-17:30
ESA1 HG HS B

AG 2

We administered a Non-Word-Repetition Task (NWR), adapted from Mann et al. (2008), to 17 users of Icelandic Sign Language (ITM): age 3;07-14;09. Among the participants, 59% were bimodal bilingual (BiBi) (2 hard-of-hearing(HH), 9 cochlear-implanted(CI)); 65% exposed to ITM before 3y.o. (AoE); 29.5% are sign bilingual in ITM and Polish- or Lithuanian Sign Language. A subset of participants underwent the task twice (1 year apart). The NWR probes the children's development of various aspects/parameters of ITM phonology.

We show that while scores increase with age, no difference in performance between unimodal and bimodal children was obtained ($p=.689$).

Test items were further analyzed for handshake(HS), path-movement (PM), hand-internal movement (HIM). One-way ANOVA confirmed that in terms of scores (both total and on item types), the participants' status as CI correlated with the status as BiBi (which included HH). Neither DoD nor AoE accounted for the variance. Per Brentari (1993), and many others, HS predicted performance movement items across groups ($r^2=.739$, $p.032$, $R^2=.89$, $p.00001$).

A number of errors discovered across groups were due to mirror rotation – not reported in Mann et al. (2008). CI participants performed differently than the rest on movement categories ($p<.05$).

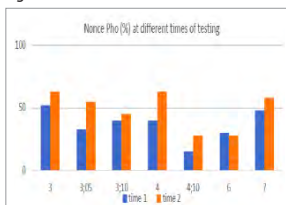
The data show that while NWR is usable to test ITM phonology in BiBi and SignL2 contexts, even early exposed BiBi children may behave differently than unimodal children on some aspects of SL phonology. In testing phonological knowledge, mirror-rotation should be taken into account.

Fig.1. Total scores in NWR



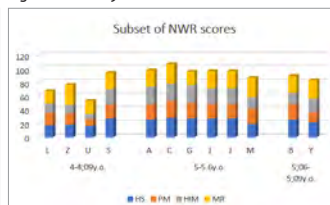
A. Total

Fig. 2 Scores at time 1 and time 2



B. Subset: time 1 and time 2

Fig.3 Item analysis



References: Hildebrandt U. & D. Corina (2002). Phonological similarity in American Sign Language. *Lang. Cogn. Processes* 17(6), 593–612. Mann, W., Marshall, C., Mason, K. & G. Morgan (2010). The acquisition of sign language: The interplay between phonology and phonetics. *Language Learning and Development*. Brentari, D. (1993). Establishing a sonority hierarchy in American Sign Language: The use of simultaneous structure in phonology. *Phonology* 10, 281–306. Holt, L. & A. Lotto (2006). Cue weighting in auditory categorization: Implications for first and second language acquisition. *Journal of Acoustical Society of America* 119, 3059–3071. Mayberry R.I. & E. Lock (2003). Age constraints on first versus second language acquisition: Evidence for linguistic plasticity and epigenesis. *Brain Lang.* 87(3), 369–384.