

## **Abstract EFAS/DGA 2007**

### **Binaural psychoacoustics in hearing impaired listeners**

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Measures of binaural psychoacoustics in SNHL, such as the masking level difference, although they show on average deficits from values from normally hearing listeners, the overlap between populations is large. In constrained circumstances, one can identify significant relationships between measures of performance on speech identification procedures and measures of binaural psychoacoustics, though these have not yet been shown to our knowledge to generalize to reports of hearing difficulties in everyday listening. We hypothesize that part of the reason for this disassociation is the concentration on largely static listening circumstances in traditional binaural psychoacoustic procedures.

We have implemented a “dynamic” masking level difference paradigm during which the interaural correlation of the masking noise varies across time. When a dynamic masking level difference parameter is derived, this does show significant relationships with aspects of a hearing disability inventory (the SSQ) which are not revealed by the static measures. Furthermore, the subscales from the SSQ which correlate with the dynamic MLD are primarily those which load on listening circumstances which are both perceptually and acoustically complex.

We suggest that over-concentration on static listening circumstances which might be convenient for laboratory investigation can obscure relationships with real world listening.

