

AutoSense OS™: Superior speech intelligibility & less listening effort in complex listening situations*



Understanding speech in noise = most difficult listening situation for people with hearing loss

In a complex listening situation, a listener constantly switches between **shared** and **focused attention**.



AutoSense OS uses **spatial noise reduction** technology to improve speech intelligibility in a complex listening situation.

Study by Hörzentrum Oldenburg (GER)

Participants

- ▶ **30** experienced hearing aid users
- ▶ Moderate hearing loss
- ▶ **Ø 72.6** years



Audéo B90
(△ Audéo Marvel)

Vs.

2 premium hearing aids from competitors

Compare

- 1** Localization ability
- 2** Subjective speech intelligibility
- 3** Subjective listening effort



in complex listening situations

01. Dynamic localization test

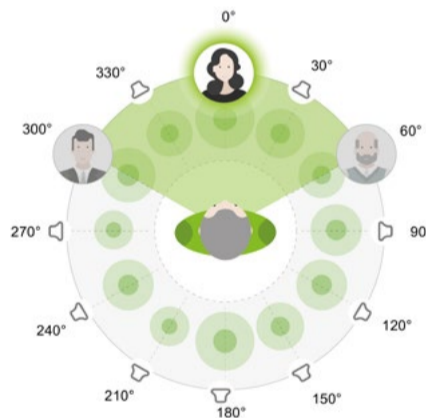
- ▶ Optical head tracker
- ▶ Circular **12**-channel loudspeaker array
- ▶ Street noise at **65 dB**

Moving targets in front hemisphere

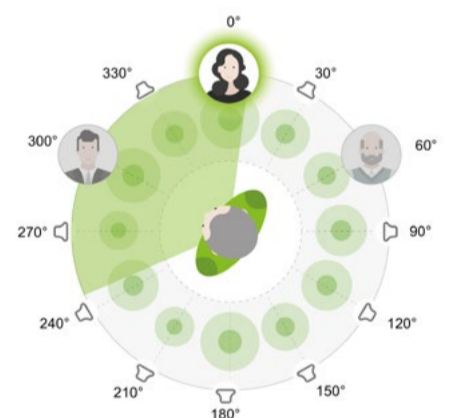
Static distractor sounds

02. Paired comparison test

- Diffuse cafeteria noise at **65 dB**
- Oldenburg sentence test (OLSA) with two competing speakers
- Pairwise comparison of two hearing aids



Focused attention



Shared attention

01. Localization ability

- ▶ No significant difference between the 3 hearing aids
- ▶ **Phonak approach** to focus on and improve speech intelligibility from the front has no disadvantage compared to competitor approaches

02. Paired comparison test

Phonak AutoSense OS provides:

- ▶ better subjective speech intelligibility
- ▶ less listening effort

than both competitor devices for focused attention (speaker in front) and shared attention (speaker at the side)

*Schulte, M., Vormann, M., Herren, J., Latzel, M. & Appleton-Huber, J. (2019). AutoSense OS - Superior speech intelligibility and less listening effort in complex listening situations. Phonak Field Study News. Retrieved from www.phonakpro.com/evidence

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