

THE WIDEX SOUND PHILOSOPHY: A GLOBAL PERSPECTIVE ON NATURAL SOUND, INNOVATIVE TECHNOLOGY, AND USER SATISFACTION

BY JAN ZIEGLER, M.SC., LAURA WINTHER BALLING, PH.D., DANA HELMINK, AU.D., AND ANDRÉ MARCOUX, PH.D.

Widex hearing aids are based on the philosophy that the natural auditory system is the best mechanism for processing sound. This means that the more the hearing aids preserve the details of the signal, and the less they distort and manipulate the sound, the better it is for the user. For this reason, Widex products attempt to mimic the natural auditory system as much as possible in their sound processing, providing the user with an authentic and detailed sound that is tailor-made for their individual needs and allows them to focus on what matters.

This philosophy is one of the reasons why Widex is known for natural sound and superior hearing aid quality. It is enabled by a history of innovation and a range of bold technological choices. These include the time-domain filter bank, which keeps signal processing delay low and the sound quality consequently high (Balling et al., 2022). Tailoring sound to the individual happens both in the clinic and in daily life. In the clinic, TruAcoustics™ accounts for individual venting and resonances (Balling et al., 2019; Cubick et al., 2022), and the Sensogram adjusts both gain and feature settings based on hearing thresholds measured with the hearing aid on the ear. In daily life, the AI-enabled Widex MySound™ functionality helps users personalize their sound in the moment (Balling et al., 2021). Finally, Widex noise reduction aims at a smooth, discrete experience that helps the user understand speech, while retaining awareness of the surroundings (Peeters et al., 2009). However, neither sound philosophy nor the innovation and technology that make it a reality are ends in themselves; rather,

the key question to investigate is their collective contribution to providing benefit to the intended user.

In order to investigate this, we designed a survey to examine the hearing aid experience of a large number of hearing aid users. With almost 4,000 respondents from 18 different countries, this survey provides a significant breadth of insight into the hearing aid experience of a diverse group of individuals.

The survey was designed to address key aspects and situations of hearing aid use, as well as the changes that users may have experienced after acquiring their current hearing aids (inspired by the MarkeTrak surveys; see, for example, Picou, 2020, 2022) and their experience of acclimatizing to their current hearing aids. For respondents who had previously worn hearing aids of brands other than Widex, the survey also asked questions that compared their experience with Widex vs. non-Widex hearing aids. Finally, the survey included questions on whether respondents would recommend Widex hearing aids to others, and which brand they would request when purchasing their next devices.

SURVEY ADMINISTRATION

The survey was administered through the Analyzer survey platform and shared with potential respondents when they opened their Widex Moment™ smartphone app in September 2023. The survey link was shown once for each app user. In order to recruit respondents with some hearing aid experience, the

link was only shown to users who had installed the Widex Moment app at least 180 days before the survey went live.

The survey was originally created in US English and then translated into French, German, and Japanese by Widex audiology staff, to ensure the appropriate use of audiological terminology. The survey link was presented to Widex Moment app users with the respective language settings on their smartphones. Respondents lived in 18 different countries, with a few indicating ‘Other’ on this question. The largest groups were from the US (n = 2086), Germany (n = 659), Canada (n = 302), Japan (n = 261), and France (n = 220).

RESPONDENTS: DEMOGRAPHICS AND HEARING AID USE

A total of 3,877 respondents completed the survey, while another 1,406 respondents accessed the

link without completing the survey, resulting in a completion rate of 73%. Since app use is anonymous, as was the survey, we have no information about how many users saw the survey link but chose not to click on it. However, the relatively low dropout rate for users who did choose to click on the link is encouraging in terms of how representative the survey is.

Figure 1 shows information about the sample, with the demographic information in the top row. We see in the first panel that the age distribution is approximately what we would expect for a sample of hearing aid users, with the large majority being in the age range from 55 to 84. Because the survey was administered via a smartphone app, it might be assumed that it would reach a larger number of younger respondents. Instead we see that more than 30% of respondents are 75 years of age or above, indicating that older respondents can also be reached in this way.

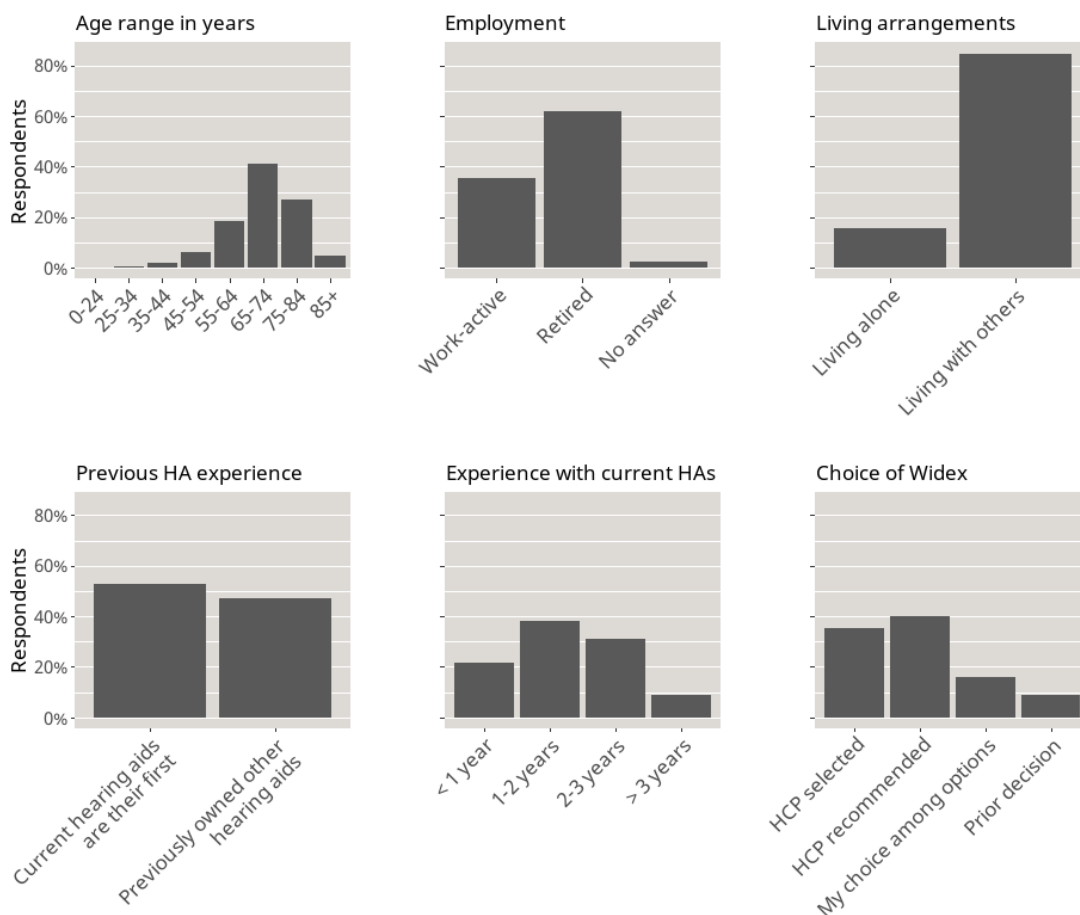


Figure 1: Information about the sample, with demographic parameters in the upper row and hearing-aid-related parameters in the lower row. The statistics are based on the full sample of 3,877 respondents, except for the question about the choice of current Widex hearing aids (lower right panel), which was not asked in the German survey because the rules for dispensing hearing aids in Germany mean that not all the response options are relevant. That panel is therefore based on 3,218 non-German respondents.

In the next panels of Figure 1, we see that 36% of respondents were work-active, while 62% were retired (the remainder chose not to answer the question), and that 85% were living with others, mostly including a spouse/partner. Living arrangements could be relevant, because people living alone may experience different auditory input and have a different auditory lifestyle than those living with others. However, the differences in this survey are not particularly informative, except that we see slightly lower ratings on most questions for those living alone. We may speculate that this has to do with this group having fewer cases where they experience a benefit from their hearing aids, but we cannot really conclude anything based on this dataset.

Regarding hearing aid use, the majority of the respondents were full-time users, with 88% indicating that they wore their hearing aids all or most of the time, and the remainder indicating occasional use. A large majority of respondents (94%) indicated that they wore two hearing aids. Further, as shown in the lower left panel of Figure 1, for 53% of respondents the current hearing aids were their first hearing aids, while 47% had previously worn other hearing aids. These experienced users indicated a median experience of 10 years, with hearing aids from a range of brands, including 1,122 respondents who had previously owned non-Widex hearing aids. All respondents had owned their current hearing aids for less than 3½ years, with the majority between 1 and 3 years, as indicated in the lower middle panel of Figure 1.

Finally, the lower right panel of Figure 1 shows the respondents' involvement in the choice of their current hearing aids. These results do not include answers from the German-language version, as

clinical dispensing guidelines in Germany do not align with the answer options used in the survey. For the remaining 3,218 respondents, we see that the majority got their current hearing aids either because the HCP selected them with no further options offered (35%) or because the HCP recommended them (40%). A smaller group of 16% chose Widex among several options, while only 9% had made a prior decision that they wanted Widex hearing aids.

For the survey results discussed in the following, we first consider answers from the full sample of 3,877 respondents with respect to their hearing aid experiences. Then, answers are analyzed for the subset of 1,122 respondents who had previously had non-Widex hearing aids and therefore were able to compare experiences across brands.

THE BENEFITS OF NATURAL SOUND

A key question that the survey attempts to answer is what the natural sound of Widex hearing aids means to users. This can be considered both directly – looking at satisfaction with naturalness and sound quality – and more indirectly – in terms of immediate reaction and acclimatization, changes in key parameters for a good and healthy life, and general satisfaction with the hearing aids.

Looking first at the direct scores for naturalness and sound quality in Figure 2 below, we see a high level of satisfaction with both, with a total of 88% being satisfied with naturalness and 90% satisfied with sound quality. Overall satisfaction, which considers a broad range of parameters related to sound and the overall user experience, was at an impressive 88% of survey respondents.

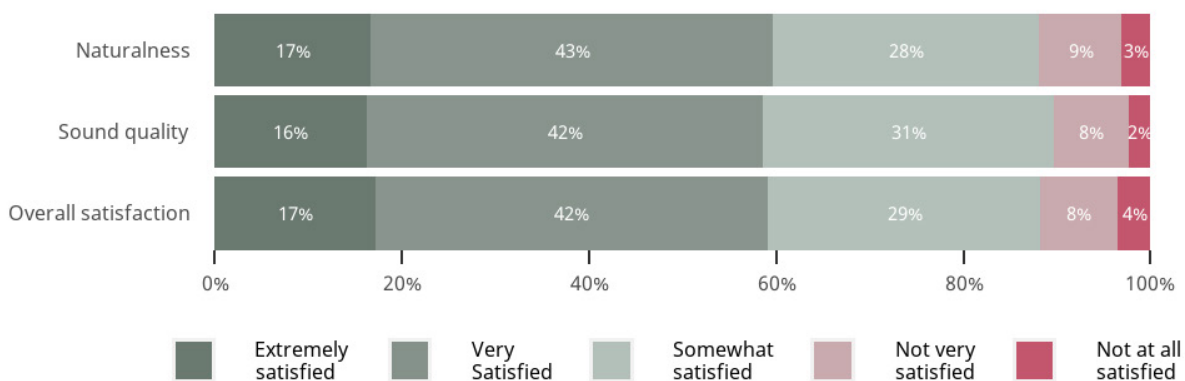


Figure 2: Respondents' ratings of satisfaction with naturalness and sound quality, and their overall satisfaction with their Widex Moment hearing aids.

Natural sound also matters during the early stages of the hearing aid journey. The more sounds are perceived as natural, the more they correspond to the sounds people remember, and the easier it may be to acclimatize to their hearing aids. In fact, a more familiar and less distorted sound will be easier for the brain to get used to, while an unnatural and distorted sound makes the brain work harder (Zhou et al., 2023).

The survey asked about acclimatization in several ways. The most general question simply asked about respondents' agreement with the statement: "It was easy to become accustomed to the sound from my Widex hearing aid(s)". For this statement, 74% of respondents expressed agreement, while 14% neither agreed nor disagreed. Only 12% disagreed somewhat or strongly, although acclimatization to hearing aids is commonly considered a challenge. As a follow-up question, the survey also asked which statements best described the respondents' immediate reaction after the fitting of their Widex hearing aids. Here, 33% indicated that the sound felt comfortable; 25% indicated that it felt natural; and 32% chose the answer option: "The sound felt right for me".

Finally, we also consider acclimatization by specifically comparing brands for the subset of respondents

(n = 1,122) who have previously worn other brands than Widex. Given both the naturalness of the Widex sound and the focus on tailoring the sound to the individual user, we hypothesized that respondents would find it easier to acclimatize to Widex hearing aids. Although many of the respondents indicate neither agreement nor disagreement, those who do have an opinion on the question (n = 667) overwhelmingly favor Widex, as indicated in the second panel of Figure 4, with 80% agreeing to the statement: "It was easier to get accustomed to the sound from my Widex hearing aids than other, non-Widex hearing aids I have had in the past". We return to this and other comparisons between brands in detail below.

Turning from the initial reactions to the more general changes that people experience with their hearing aids, the survey investigated several key parameters, as illustrated in Figure 3. This shows that more than half of the respondents experience positive changes both on daily-life parameters that have a direct relationship to hearing, namely effective communication and social interaction, and on parameters that are more generally related to hearing, such as work performance and quality of life. It is particularly encouraging that the broadest parameter, quality of life, is also the one for which the largest proportion of respondents indicate an improvement.

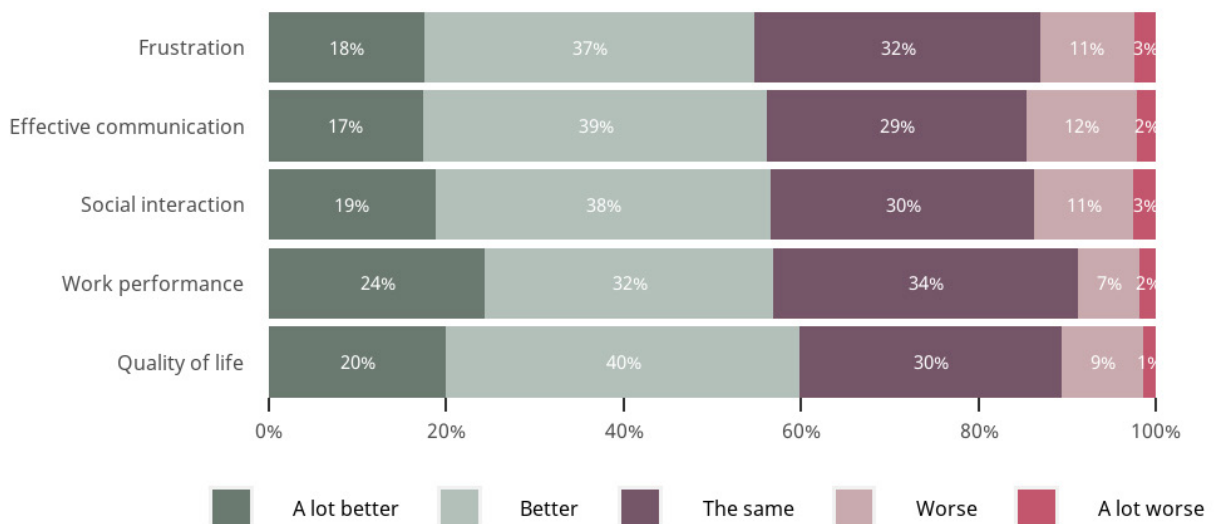


Figure 3: Respondents' ratings of change for key parameters related to daily life after getting their current Widex Moment hearing aids. The percentages for each parameter are calculated relative to the total number of respondents who answered this question. For work performance, the number of respondents is lower, due to the substantial proportion of retired respondents.

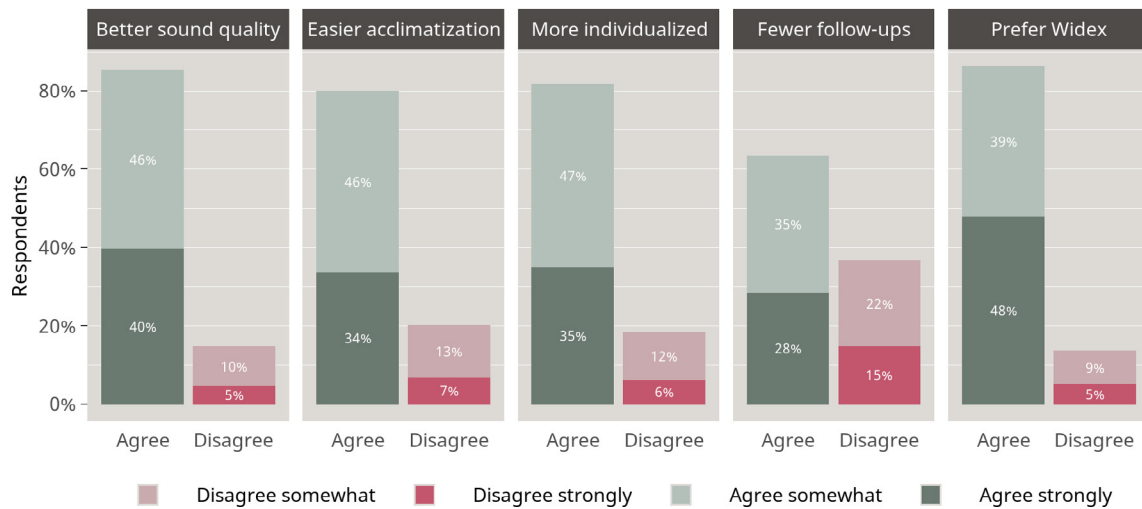


Figure 4: Agreement on questions about whether Widex has better sound quality (n = 812), easier acclimatization (n = 667), fewer follow-up appointments needed (n = 656), a more individualized fitting process (n = 684), and on overall preference for Widex (n = 862).

Interestingly, the proportions shown in Figure 3 do not vary substantially when subdividing the respondents based on whether this is their first hearing aid(s) or not, or based on how long the respondent has owned their current hearing aid(s). This indicates that the benefits from Widex hearing aids are felt by both new and experienced users, and that such benefits are sustained over time.

THE WIDEX DIFFERENCE

The analyses of all respondents discussed above show several key advantages of the natural sound and natural hearing with Widex hearing aids. To complement this, it is also interesting to consider how the experience with Widex hearing aids compares to experiences with other brands, and how likely users are to stay with a given brand. To understand this, we analyzed responses from the 1,122 experienced hearing aid users in the survey who had tried other brands before getting their current Widex Moment hearing aids.

Looking first at some specific comparison parameters, the survey asked about respondents’ experiences with hearing aid sound quality, acclimatization, number of follow-up appointments, and individualization of fitting. These are not easy questions for everyone to answer, which is likely to be the reason that a substantial proportion of the sample (between 23% and 42% of the relevant respondents, depending

on the question) either selected “Not applicable” or “Neither agree nor disagree” as their response. However, the results from respondents that did express an opinion are quite clear, as illustrated in Figure 4: At least 80% of them agree that Widex hearing aids have better sound quality, are easier to get used to, and were fitted in a more individualized process than other, non-Widex hearing aids they used in the past.

The fourth parameter in Figure 4, fewer follow-ups, may be the most difficult to impact through hearing aid design, since some follow-up appointments are always necessary, while the exact number depends on the specific clinical environment. Nonetheless, we do see a definite Widex advantage, with 63% of respondents agreeing that they needed fewer follow-up visits with their hearing care professional with Widex hearing aids compared to other, non-Widex hearing aids they had in the past. This aligns with the finding that hearing care professionals find that fewer follow-ups are needed with Widex than with other brands (Helmink & Sasaki-Miraglia, 2023). Taken together, the end-user and HCP results suggest a Widex advantage in terms of the number of follow-up appointments necessary to achieve user satisfaction – a major efficiency for a clinic wishing to increase its scheduling capacity. This advantage is probably partly driven by the precise Widex fitting workflow, including TruAcoustics and the Sensogram.

Although the initial fitting may be marginally more time-consuming due to the Sensogram, that investment of time appears to pay off in a reduced need for follow-up appointments.

Finally, Figure 4 also shows the results for overall preference, where 86% of respondents indicate a preference for their Widex hearing aids over previous, non-Widex hearing aids. To ensure that respondents did not rate their current hearing aids more favorably on the simple basis that “newer is better”, we also asked about the likelihood of requesting and recommending Widex hearing aids in the future. As shown in Figure 5, 87% are likely to recommend

Widex to others, with 54% being very or extremely likely to do so. Similarly, 87% of respondents are likely to request Widex next time they themselves need new hearing aids, with 54% being extremely or very likely to do so. This later finding is of particular interest given that the results reported in Figure 1 indicated that fewer than 10% of respondents had made a prior decision for Widex when getting their current hearing aids (with the overwhelming majority accepting their HCP’s choice or following their HCP’s recommendation). This means that the respondents’ experience with Widex Moment hearing aids has made them much more likely to request Widex from their HCP in the future.

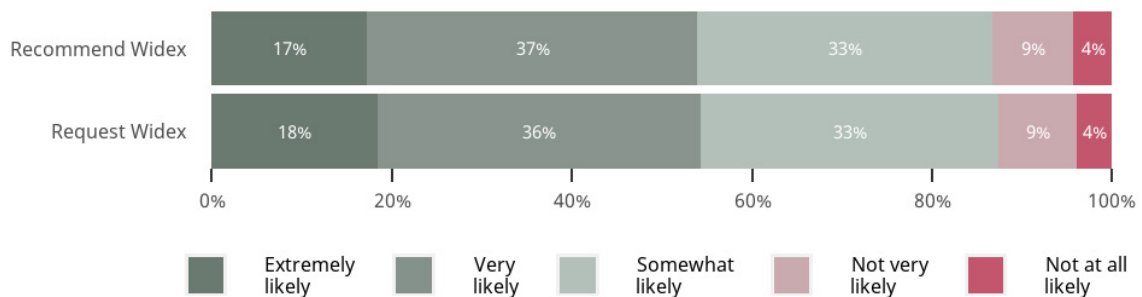


Figure 5: Respondents’ likelihood of recommending Widex to friends and family and requesting Widex when they need to replace their hearing aids.

CONCLUSION

The current survey of almost 4,000 hearing aid users confirms the benefits of the Widex sound philosophy, with its focus on authentic and detailed sound that is tailor-made for the individual user’s needs and allows users to immerse themselves in their daily lives. We may link the authentic and detailed sound to the high level of satisfaction with sound quality (90%) and naturalness (88%), while immersion in daily life shows up in improvements in quality of life, effective communication, and social interaction for the majority of respondents. Finally, easier acclimatization and fewer follow-up appointments are the probable results of the careful tailoring of Widex hearing solutions. However, although some specific design principles are more clearly related to specific results than others, the positive user experiences documented in this survey should not be seen as isolated results of specific features or individual design choices, but rather as the sum total of the Widex sound philosophy – the natural sound for natural hearing, which truly is sound like no other.

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