Relationship between masking release in fluctuating maskers and speech reception thresholds in stationary noise - DTU Orbit (16/12/2018)

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In contrast to normal-hearing (NH) listeners, hearing-impaired (HI) listeners often show strongly reduced masking release (MR) in fluctuating interferers, which has commonly been associated with spectral and temporal processing deficits. However, it has recently been proposed that the reduced MR could result from an increased speech recognition threshold (SRT) in stationary noise [Bernstein and Grant, J. Acoust. Soc. Am. 125, 3358-3372 (2009)]. This was tested by presenting noise-band vocoded as well as low-pass and high-pass filtered stimuli to NH listeners, thereby increasing their stationary-noise SRTs to those of the HI listeners. If the primary determinant of MR is the SRT in stationary noise then the amount of the MR should be independent of the type of processing used to obtain the stationary-noise SRT. However, the relation between the amount of MR and the stationary-noise SRT depended on the type of processing. For a fluctuating interferer, none of the processing conditions reduced the MR of the NH listeners to that of the HI listeners. In contrast, for an interfering talker, the results for vocoded stimuli were similar to those of the HI listeners. Overall, these results suggest that the observed MR is only partially related to the stationary-noise SRT.