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Autore	Oberem Josefa
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Sommario/riassunto	The aim of the present thesis is to examine the cognitive control mechanisms underlying auditory selective attention by considering the influence of variables that increase the complexity of an auditory scene. Therefore, technical aspects such as dynamic binaural hearing, room acoustics and head movements as well as those that influence the efficiency of cognitive processing are taken into account. Step-by-step the well-established dichotic-listening paradigm is extended into a realistic spatial listening paradigm. Conducted empirical surveys are based on a paradigm examining the intentional switching of auditory selective attention. Performance measure differences between the repetition of the target's spatial position and the related switch describe the loss of efficiency associated with redirecting attention from one target's location to another. To examine whether the irrelevant auditory information is decoded, interference in the processing of task-relevant and task-irrelevant information is created in the paradigm. Using the binaural-listening paradigm, the ability to intentionally switch auditory selective attention is tested when applying different methods of spatial reproduction. Essential differences between real sources, an individual and a non-individual binaural synthesis are found. As a step towards multi-talker scenarios in

realistic environments participants are tested in differently reverberating environments, resulting in highly affected switch costs. Age-related effects are found when applying the binaural-listening paradigm, indicating difficulties for elderly to suppress processing the distractor's speech.
