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## COGNITIVE ASPECTS OF LISTENING IN PERFORMANCE SPACES

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### Abstract

The so-called “quality of the acoustics” is an important determinant of how we are listening in performance spaces. Although the term is often used both in science and in practice, it is often not well defined. A closer look shows, however, that the quality of the acoustics is a complex and multi-layered phenomenon. When analyzing or modeling the formation process of the quality of the acoustics, a variety of quality elements and quality features have to be taken into account, whereby the actual relevance and salience of each of them is situation and user specific.

In this lecture we present the architecture of a general conceptual model of the quality-formation process and identify an adequate system of classes of references involved, thereby considering aspects of psychoacoustics, sensory psychology, physics, and the information sciences. Effort will be put into an attempt of discussing the different aspects of sound quality in a unified way, such that the general concept of acoustics quality does not change due to a specific application or a specific listener. Rather, it is only the frame of reference that has to be adapted specifically to a particular application. Some frequent problems regarding the identification and specification of proper references are discussed in detail.

The issue of objectivity will be considered in this context. The discussion of the model will reveal its cross-cultural, universal validity, making it a proper conceptual framework for ordering and analyzing the elements of the quality of the acoustics in a broad range of performance spaces from the ancient ages up to modern times.