

The „Open-Earedness“ After Primary School – Results of a New Approach Based on Voluntary Listening Durations

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ABSTRACT

Background

In the 1980s, David J. Hargreaves conducted several studies on aesthetic reactions to music. He then introduced the assumption that younger children are more ‘open-eared’ than older children, i.e. that they are more open towards unconventional styles of music than older children (Hargreaves, 1982). Based on Hargreaves’ assumption a hypothesis was developed about the decreasing openness of children towards unfamiliar styles of music with increasing age, which can be accounted for by the increasing orientation on standardised forms of music (e.g. pop) that enhances a renunciation of other styles of music. The original openness and curiosity is lost.

In their pilot studies on the development of open-earedness of primary school children (aged 6 to 10 years), Heiner Gembris and Gabriele Schellberg created an experimental design with a sound questionnaire including 10 music examples in the styles of classical, avant-garde, ethnic music and pop (Schellberg & Gembris, 2003, 2004; Gembris & Schellberg, 2007). Each piece was presented with a loudspeaker to the whole class for 90 seconds. Afterwards, the children were instructed to state their ‘liking’ of each music example on an answer sheet on a five-point scale with smiley symbols. The question was: “How much did you like listening to the music?” Thus, this experimental design closely followed the research on musical preference. Open-earedness then was quantified by the children’s preference profile: the more examples from different styles a child liked and the better they liked them the greater was the assumed degree of open-earedness. In the result, in all three studies the rating for pop examples remained unchanged with the increasing age of the subjects while ratings for “uncommon” styles like classical, avant-garde and ethnic music decreased. The hypothesis that open-earedness decreases with increasing age therefore seemed to be supported.

The preference-based design by Gembris and Schellberg was used for several follow-up and replication studies (Kopiez & Kobbenbring, 2006; Kopiez & Lehmann, 2008; Louven, 2011; Kopiez & Lehmann, 2011) with primary school children whose result in general also supported the thesis of decreasing open-earedness with increasing age. In a preference-based long term study Louven (2011) in addition showed a clear influence of string class education on the preference ratings, with the string class children rating especially classical but also the avant-garde and ethnic music examples more positively than the children not attending a string class and the positive classical ratings persisting over time. Since the development of non string class children was analogous to the previous studies mentioned above, the results

seemed to support the general tendency of decreasing open-earedness with increasing age, which, however, can apparently be influenced by special music education.

Although the preference based design was the basis for all previous studies on open-earedness a serious problem in this design is the intermixture of the concepts of preference and openness. Taking a closer look it becomes clear that the children’s preference for certain styles on the one hand and the openness and curiosity for unfamiliar and uncommon styles on the other are essentially different things: one might spontaneously dislike something but at the same time be open towards it. Thus it is too simple to just derive musical openness from preference ratings for different styles! Therefore our team at the University of Osnabrück developed a new scientific approach on open-earedness in which curiosity plays an especially important part. It implies the motivation to deal with new, unaccustomed and possibly complex situations and things and describes an explorative behaviour due to which novel things are actively sought out. Curiosity shows itself in the interest for unfamiliar and uncommon situations. Openness can then be understood as the willingness of an engagement full of curiosity and free of prejudices despite a negative first judgement or repellent impression. On this basis, we suggest the following alternative basic definition: Open-earedness is indicated by the willingness to concern oneself with a piece of music even and especially if one does *not* like the music immediately. Thus, if one primarily listens to music he likes anyway, this is not very open-eared!

For an experimental design this fundamentally different view on open-earedness still requires the rating of likings because in accordance to the new definition it must be known whether a subject liked a piece of music or not. However, the measurement of preference is only one aspect. Additionally, the willingness of subjects to concern and occupy themselves with the differently preferred pieces of music must be recorded. Therefore the amount of time during which a subject listens to a piece of music with the option to stop at any point of time has to be measured: the *voluntary listening duration*.

The precise measurement of voluntary listening durations needs a computer-based experimental design. Therefore, our team at the University of Osnabrück has developed the software *OpenEar* (free download at systematik.musik.uni-osnabrueck.de). It provides an auditory questionnaire with a very simple user interface whose design and behaviour can be changed flexibly and according to the researcher’s needs. Subjects hear a series of pieces of music and may switch to the next music at any point of time by simply clicking the only button they see on screen. The time they listened to the music is then measured as voluntary

listening duration for this piece. Afterwards they are asked to give preference ratings on the music they heard. As each subject deals with the computer individually and listens through headphones, this design allows the presentation of individually randomized examples and reduces the mutual influence of the children by spontaneously shared impressions and opinions that could be observed during the collective listening in the classroom in the old pen-and-paper design.

A first study with this new design was conducted by Aileen Ritter with 160 primary school children at the Grundschule Horst in Garbsen near Hannover/Germany (Louven & Ritter, in press). The preference ratings of the children showed comparable results to the previous studies and seemed not to have been influenced by the computer based design. Due to our fundamental idea that open-earedness shows up in the willingness to concern and occupy oneself especially with music one spontaneously does not like, we combined the voluntary listening times and preference ratings for all pieces to a new numerical index of open-earedness. This index did *not* show any significant changes over time for primary school children but very significant differences among sexes. Thus, this result did not support the hypothesis of decreasing open-earedness with increasing age but showed a persisting openness during primary school. Therefore we claimed that previous studies didn't really observe the decrease of open-earedness but just the development of musical taste and preference during primary school.

Aims

All previous studies on open-earedness only dealt with primary school children. Although our results suggest a persisting open-earedness during primary school, it is completely unclear what happens to musical openness in older populations. Therefore, this paper will present the results of two follow-up studies with *Gymnasium* (high school) pupils and university students, partly with special music education (pupils of a *Gymnasium* with a special music profile or university music students). This allows for the observation of both the development of open-earedness after primary school and the influence of special musical training on this process.

Method

Both studies used the computer-based design with the software *OpenEar* described above. The presented music consisted of 17 examples of different styles (e.g. classical, avantgarde, ethno, pop, jazz, etc.) that were derived from the examples of the old pen-and-paper studies and had already been used in our previous primary school study (Louven & Ritter, in press). The first study was conducted by Julia Steinhöfel with 343 pupils (class 5 to 12) in two *Gymnasien* (high schools) in Montabaur/Germany, where one of the high schools had a special music profile. The other study was accomplished by Désirée Jessen and took place at our university; the subjects were 75 music- and non-music students, aged 17 to 31.

Results

Both studies show very interesting results in the development of preference and open-earedness. While the preference ratings for the different styles developed in very different directions (e.g. the liking for pop decreases

dramatically with age), the index of open-earedness derived from the preferences and the voluntary listening duration shows no significant changes. The influence of musical training on the preference ratings can be seen clearly, however, the open-earedness does not seem to be affected by it.

The analysis of data is going on and will be finished in July.

Conclusions

The results seem to support the result of our primary school study: while preferences may dramatically change with increasing age and musical training, the musical openness as we understand it seems to be quite stable. Therefore, one can assume that this kind of musical openness may show a kind of character trait which might be directly linked with openness in general. Thus, a following study will investigate the relation between musical openness and the „openness to experience“ derived from the NEO-PIR questionnaire.

Keywords

preference, open-earedness, openness, software, school, development, age

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