Relationship Between Exposure to Music and Pro-Social Behavior
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Abstract
This study analyzed data from 2008 households that took part in a national arts participation survey. The data were analyzed using logistic regression, in which pro-social behavior was regressed on live versus electronic exposure to music. It was found that the likelihood of civic engagement was greater with increases in either mode of exposure.

Background
It is well established that participation in the arts has beneficial effects on intelligence (Schellenberg, 2004, 2011). Furthermore, some of the neurological processes underlying these benefits have been identified (Eliot, 2015). A useful strategy for understanding these benefits is to focus on audience members rather than on artists or performers (Brown & Novak, 2007).

Method
Data
The Current Population Survey (CPS, <http://www.census.gov/cps/>), managed jointly by the US Census Bureau and the US Bureau of Labor Statistics, is the principal source of high-quality economic data as well as extensive demographic data and behavioral information that, together, provide a comprehensive understanding of labor market conditions in the nation overall. The CPS is administered monthly to a random sample of 57,000 individuals. It has its origins in the 1930s, when it was used as a means of tracking unemployment during the Great Depression. It has been updated numerous times since then in order to account for significant changes in the national economy.

In certain years, the CPS has included a Survey of Public Participation in the Arts (SPPA). These supplemental surveys, sponsored by the National Endowment for the Arts, include items that measure the household member’s participation in various arts-related activities, e.g., frequency of participation, training and exposure, musical and artistic preferences, length of travel for trips to arts-related events, school-age socialization, and computer usage related to arts information. In our earlier study, we analyzed data from the 2012 supplemental survey, which is the most recent version. Because the 2008 and 2012 SPPA surveys are similar, the two cohorts can be compared on numerous dimensions.

Procedure
Logistic regression was used to analyze the data. To determine whether we were able to replicate our earlier findings (Polzella & Forbis, 2013), we applied the same procedures to the 2012 SPPA data. The data analysis assessed the relationship between attending traditional music concerts and engaging in two types of pro-social behaviors: (1) making charitable donations or volunteering time, and (2) attending community meetings. [Note: Unlike the 2008 SPPA, the 2012 SPPA did not include questions addressing whether the respondent voted in the most recent presidential election.] In technical terms, pro-social behaviors, i.e., the criterion variables, were regressed on attending musical concerts, i.e., the predictor variables. All variables were assigned binary values, such that 1 = observed and 0 = not observed.

To compare live versus electronic encounters with the arts (via the Internet), we regressed the data for each pro-social behavior on the two modes of arts-related experiences (the predictor variables). Each regression model included seven control variables, which are known to predict pro-social behavior: Age, Race, Sex, Income, Education, Marital Status and Occupation Class.

Results
Table 1 shows descriptive statistics for the 2008 and 2012 databases. With few exceptions, the samples were comparable. As expected (Novak-Leonard & Brown, 2011), a greater proportion of respondents experienced the arts through electronic media rather than through live attendance.

Table 3 compares the odds ratios for live versus Internet music engagements obtained from the 2012 database. In the majority of cases, both types of engagement were associated with greater likelihood of volunteering/contributing or participating in community activities.

Table 2 includes summary statistics for 2008 and 2012 databases. In this case, we analyzed data from the 2012 supplemental survey, which is the most recent version. Because the 2008 and 2012 SPPA surveys are similar, the two cohorts can be compared on numerous dimensions.

Discussion
The successful replication of Polzella and Forbis’s (2014) findings shows that the positive relationship between exposure to live music and pro-social behavior has persisted more or less unchanged from 2008 through 2012. Another objective of this study was to determine whether exposure to music via the Internet also predicted pro-social behavior. Table 2 shows that this was the case.

Brown and Novak (2007) point out that “social bonding” is an intrinsic component of live performances, leading to feelings of belonging or connectedness with the rest of the audience to the sharing of a cultural heritage, and to gaining new insight on human relations or social issues. This social component helps to explain the positive relationship between exposure to live music and pro-social behavior. Social bonding is also an intrinsic characteristic of the Internet, which may help explain its being related to pro-social behavior as well.

References

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