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## Research note

## Effects of songs with prosocial lyrics on tipping behavior in a restaurant

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## ABSTRACT

Recent research has shown that exposure to songs with prosocial lyrics was associated with prosocial behavior and accessibility of prosocial thoughts. However these studies were performed in a laboratory setting where participants were instructed to listening songs alone in a room. So the effect of prosocial songs in a natural setting, with several people in a room and with various ambient noises still remained in question. An experiment was carried out in a restaurant in order to test if listening or not, prosocial songs by patrons, was associated with variation in their tipping behavior. Results showed that prosocial songs were associated with a significant increase in tipping behavior.

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In many countries, whether in bars or in restaurants, the waiters and waitresses' wages are low and most of their incomes derive from tips. Therefore, for these servers and for the managers, knowledge about factors that affect customer's tipping behavior become important. For two decades, social psychologists have found numerous factors that increase servers' tips. In this study we have tested the effect of background music and particularly songs lyrics on tipping behavior of the customers.

Music and song lyrics have the ability to influence people's behavior (North and Hargreaves, 2008). Areni and Kim (1993) compared the effect of classical versus Top Forty background music in a wine store, and found that sales increased, and customers selected more expensive wines, when classical music was played. This behavioural effect is consistent with the suggestion of Yalch and Spangenberg (1993) that classical music evokes a perception of higher priced merchandise and supports the notion that music must be appropriate for the context in which it is employed in order to enhance persuasion. North et al. (1999) found that customers' selection of French and German wines was strongly affected by stereotypic French and German background music played in the wine section of a supermarket. Significantly more French wines were sold than German wines when French music was played, whereas significantly more German wines were sold than French wines when German music was played. In a recent experiment conducted by Jacob et al. (2009) it was found that male customers, but not female, exposed to romantic songs played in a flower shop spent

more money than when no music was played or when pop music was played. Recently, Greitemeyer (2009a,b) found that exposure to prosocial song lyrics (relative to neutral ones) increased prosocial thoughts, feelings and behavior. This scientist found that participants in a laboratory setting who listen to songs with prosocial lyrics helped more favorably a confederate who asked them to donate 2€ for a non-profit organization. In one other study, this author found that listening to songs with prosocial lyrics fostered interpersonal empathy and that this empathy mediated later prosocial behavior. For this author such results confirm the General Learning Model (GLM) proposed by Buckley and Anderson (2006) that stated that media exposure in general affects internal states of individuals, which explains why prosocial media fostered prosocial outcomes. In Greitemeyer's studies music was displayed in a laboratory setting and participants were asked to listening music. Thus this is not really a natural setting such as a store or a restaurant. In these places music can be displayed but a lot of events occur in such setting that led the customers not to focus on the music and the song lyrics. The purpose of our study was to test the effect of songs with prosocial lyrics on patrons' tipping behavior in the restaurant.

## 1. Method

## 1.1. Participants

Seven hundred and eighty-six restaurant's customers (432 males and 354 females) who acted as participants were randomly assign in 3 conditions. Some of them ( $N=326$ , 194 males and 132 females) were seated alone whereas the other ( $N=460$ , 248 males and 202 females) were in group (2 from 5 persons) at a table in a restaurant of a medium-size city (more than 70,000 inhabitants) in

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a very attractive spot. This provincial town was Vannes, located in the west of France on the Breton Atlantic Coast.

### 1.2. Materials

In order to determine the songs that could be used in the experimental conditions, a pilot study was performed in two successive stages. Firstly, 281 passersby in a street were invited to answer two single questions: "For you, what is the first French song with French lyrics you like, that is associated with prosocial thoughts and feelings of empathy?" and "For you, what is the first French song with French lyrics you like, that is associated with neutral thoughts and feelings?" The interviewer noted the participant's suggestions and the songs with more than one citation frequency were selected (32 different songs associated with prosocial thoughts and feeling of empathy and 56 with neutral thoughts and feelings). Secondly, 95 undergraduate students listened to each song and rated to what extent the lyrics were prosocial. The evaluation was performed with a scale from 0 = neutral to 9 = extremely prosocial). The participants were also invited to rate how much they liked the song with a scale from 0 = I do not like this song to 9 = I like this song very much. The 15 songs with the highest and the 15 songs with the lowest prosocial/neutral mean and without any difference with regard to liking were retained for the study.

### 1.3. Procedure

The tips collected by two waitresses (21 and 23 years old respectively), regularly employed, were evaluated according to the music condition. However, these employees were not aware of the goals of our experiment and they have not received any information about previous studies on the effect of music on customer behavior.

The experiment was conducted each day during 6 weeks (excluding Sunday because the restaurant was closed) and two times per day (one during the lunch period and the other during the dinner period). Thus, 72 periods were available for the experiment (6 weeks  $\times$  6 days per week  $\times$  2 lunch or dinner period = 72). Each of these 72 periods, were randomly assigned to one of the 3 background music: 24 time periods where songs with prosocial lyrics were displayed (prosocial songs condition), 24 time periods where songs with neutral lyrics were displayed (neutral songs condition) and 24 time periods where music usually displayed in the restaurant was used (baseline condition).

Three 15 songs Audio CD were used each with about the same time of listening (from 58.7 min to 64.2 min). Each CD was displayed two times during the same dining period (lunch or dinner). The waitresses were instructed to act in a similar way as usual. After the patron or group of patrons had left, the waitress returned to the table to clear it. She reported on a notebook how the client had behaved, namely, whether he/she had left a tip or not and how much he/she gave to her.

The first dependent variable was the proportion of patrons who left a tip and it was calculated by dividing the number of patrons who left a tip during each period by the number of patrons who were seated in the restaurant during this period. The second dependent variable was the amount of money gave by the donators and it was obtained by dividing the sum of money gave by the donators during each period by the number of customers who gave a tip during this period.

## 2. Results

In France giving the waiter or the waitress a tip is unusual because French legislation mandates that a 12% service charge be included in the cost of the item on the menu. Thus, in this experiment, the rate of patrons who left a tip during each time period was

**Table 1**

Mean (SD in brackets) of the proportion of patrons who left a tip during each time period according to the experimental condition and the lunch or dinner condition.

	Prosocial lyrics	Neutral lyrics	Baseline condition
Lunch	37.46 (9.31)	28.09 (15.81)	21.71 (6.83)
Dinner	32.64 (13.00)	20.89 (13.13)	26.41 (5.55)
Total	35.05 (11.33)	24.48 (17.73)	24.06 (6.54)

**Table 2**

Mean (SD in brackets) of tip gave (in euros) by customers during each time period according to the experimental condition and the lunch or dinner condition.

	Prosocial lyrics	Neutral lyrics	Baseline condition
Lunch	1.22 (0.15)	1.23 (0.17)	1.15 (0.14)
Dinner	1.53 (0.24)	1.21 (0.46)	1.26 (0.21)
Total	1.38 (0.25)	1.22 (0.32)	1.21 (0.18)

the first dependant variable whereas the amount of tip left at each time period was the second dependant variable. Preliminary data analysis was conducted for the two waitresses and revealed no difference on both dependant variables according to the experimental conditions. Thus, their data were combined.

With the rate of patrons who left a tip during each time period a 3 (experimental condition: pro social lyrics, neutral lyrics, baseline condition)  $\times$  2 (period: lunch, dinner) was used. Data are present in Table 1.

A main effect of the music condition was found  $F(2, 66) = 7.36$ ,  $p \leq .005$ , partial- $\eta^2 = .182$ . Post hoc test revealed that the prosocial song condition was significantly different than the neutral song condition (LSD test,  $p = .002$ ) and the baseline condition (LSD test,  $p = .001$ ) whereas neutral song condition and the baseline condition was not different (LSD test,  $p = .90$ ). Neither main of the period (dinner vs lunch):  $F(1, 66) = 0.85$  ns, partial- $\eta^2 = .01$ , nor interaction between the music condition and the period were found:  $F(2, 66) = 1.88$  ns, partial- $\eta^2 = .05$ .

With the amount of money gave by the donators during each time period a 3 (experimental condition: pro social lyrics, neutral lyrics, baseline condition)  $\times$  2 (period: lunch, dinner) was used. Data are present in Table 2.

A main effect of the music condition was found  $F(2, 63) = 3.63$ ,  $p = .03$ , partial- $\eta^2 = .102$ . Post hoc test revealed that the prosocial song condition was significantly different than the neutral song condition (LSD test,  $p = .03$ ) and the baseline condition (LSD test,  $p = .02$ ) whereas neutral song condition and the baseline condition were not different (LSD test,  $p = .81$ ). A main of the period (dinner vs lunch) was found  $F(1, 64) = 5.13$ ,  $p = .03$ , partial- $\eta^2 = .05$  revealing that customer gave larger tips during lunch than during dinner. However, further comparisons revealed that the difference between the dinner and the lunch periods was found only when prosocial songs lyrics were displayed ( $t(22) = 3.79$ ,  $p < .001$ ,  $d = 1.62$ ). No interaction between the music condition and the period was found:  $F(2, 64) = 2.78$ , ns, partial- $\eta^2 = .08$ .

## 3. Discussion

Our hypothesis is supported by the results. Listening to prosocial song lyrics, relative to neutral ones, is associated with greater further helping behavior. Some research found that music displayed in people's environment was associated with an increase in pro-social behavior (North et al., 2004), interaction behavior (Le Guellec et al., 2007) or consumer behavior (Areni and Kim, 1993). However, in these experiments the effect of music was found when comparing with a control condition where no music was displayed. Recent research found that listening to songs with prosocial lyrics was associated with greater helping behavior and prosocial thoughts

and feelings (Greitemeyer, 2009a,b). However, in these later studies the experiments were conducted in a laboratory setting with participant solicited to focus their attention to music. This is not the case in our experiment which was natural and where multiple environmental events appeared. When customers were exposed to prosocial song lyrics, such lyrics probably activated prosocial thoughts and empathy (Greitemeyer, 2009a,b) which in return led the customer to offer more help to the waitress by leading her larger tips. Thus, future studies could explore if this behavioral effect is mediated by such feelings.

Such results have managerial implication. In this experiment, we found that the average rate of customers who left a tip to the servers is higher in the prosocial lyrics conditions when compared to neutral lyrics or baseline condition. The systematic use of this technique could therefore increase the employees' income. Considering the part of tipping in the waiters' and waitress' income in France, this technique could increase their wages by about 8%. Managers, then, should encourage these methods, insofar that they may create a greater state of fulfilment in the workplace for the employees; their work becoming far more interesting owing to an increase in tips. Further, these methods may infer in turn, much more contentment and satisfaction for the customer; these factors being a means to encourage the customer to come back or to praise the place.

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