

'Heal the world': Can prosocial music reduce customer aggression in call centres?



Final report to Richard Benjamin Trust

Karen Niven

Manchester Business School, University of Manchester, UK

Funded by the Richard Benjamin Trust

‘Heal the world’: Can prosocial music reduce customer aggression in call centres?

Contents

1. Executive summary	p. 2
2. Background	p. 3
2.1. Why study call centres?	p. 3
3. Methodology of the study	p. 4
3.1. The intervention	p. 4
3.2. Study measures	p. 4
3.3. Participants	p. 5
3.4. Summary of methodology	p. 5
4. Findings of the study	p. 6
4.1. Can prosocial music ‘heal the world’?	p. 6
4.2. How does dealing with angry and aggressive callers affect call centre employees?	p. 7
4.3. Summary of results	p. 7
5. Discussion and recommendations	p. 8
5.1. Contributions of the research	p. 8
5.2. Limitations	p. 9
5.3. Recommendations	p. 9
5.4. Impact of the research	p. 10
6. References	p. 11

1. Executive summary

Could listening to songs with prosocial lyrics, like Michael Jackson's 'Heal the world', make people act less aggressively? Although laboratory research has shown promising results, it has yet to be determined whether such music can reduce everyday instances of naturally-occurring aggression in occupational settings. In call centres, where customer anger is high in prevalence, with significant health implications for employees, a low-cost, simple music intervention could provide a huge benefit. The present research aimed to test whether using prosocial songs as 'hold music' can reduce customer anger and improve employee well-being and performance in a call centre.

A field intervention study was conducted in collaboration with an inbound customer service call centre. Employees at the call centre participated in a diary study where they provided self-reported measures of caller anger and their own well-being and emotion regulation daily for a three-week period. Objective performance data were also obtained. The intervention, which employees were blind to, involved changing the 'hold' music in the call centres daily. Three conditions were compared: no change of music, prosocial music, and neutral comparison music.

Analyses revealed that the intervention did influence caller anger and employee well-being, but not employee performance. However, the differences between conditions were not consistent with the previously-reported prosocial music effect. Callers were no less angry and employees no less exhausted on days when prosocial music was played as hold music in the call centre. Instead, positive differences emerged on the days when popular music with neutral (i.e., non-prosocial) lyrics was played to callers. Further analyses suggested that caller anger had large negative effects of employees' day-to-day well-being, and that these effects were partly explained by employees' use of maladaptive strategies for managing their emotions.

The findings of the study suggest that popular music may hold some promise as an intervention for reducing caller anger in call centres, but music with neutral (i.e., non-prosocial) lyrics is likely to be most beneficial. Training employees in more adaptive strategies for regulating their emotions in response to caller anger and aggression is an alternative intervention that the present study suggests might prove effective.

2. Background to the study

Workplace aggression refers to negative acts perpetrated against organisational members that targets are motivated to avoid (Hershcovis & Barling, 2010), and includes non-physical acts of verbal aggression (e.g., being sworn at) as well as physical acts like being hit. Workplace aggression poses a significant challenge to organisations and wider society due to the detrimental effects it has on targets' well-being and health, performance and productivity, and absence from work (e.g., Rogers & Kelloway, 1997); costs of aggression to UK work organisations were estimated at £13.75 billion in 2007 (Giga, Hoel, & Lewis, 2008). Despite the clear impetus to protect employees from being subjected to aggression at work, few studies to date have sought to identify potential interventions.

- **The aim of the present study was to build on a recent body of social psychology research by testing the efficacy of a novel intervention to reduce aggressive behaviour at work.**

The intervention is based on a series of laboratory-based studies by Greitemeyer (2011; see also 2009a; 2009b), which demonstrated that compared to listening to neutral songs by the same artists, listening to songs with 'prosocial' lyrics about benefitting other people reduced people's aggressive feelings, thoughts, and behaviours. The influence of music more generally on people's behaviour is well-established (e.g., tempo and preference can affect shopping behaviour, driving behaviour, and work performance; Areni & Kim, 1991; Brodsky, 2002; Lesiuk, 2005), and Greitemeyer's results indicate that prosocial music may specifically have an impact on *aggressive* behaviour. However, a lack of organisational studies means that it is not yet clear whether prosocial music would be an effective intervention for reducing *workplace* aggression. In the present study, the idea was to test this in a customer service call centre, by introducing prosocial music as 'hold music' for customers.

- **The specific objectives of the research were to test whether the intervention had benefits in the workplace in terms of (a) reducing customer aggression towards call centre employees, and, in turn, (b) improving employee well-being and performance.**

2.1. Why study call centres?

Customer aggression is rife in call centres. The purpose of many calls is to complain, meaning that customers may start their call feeling angry; waiting 'on hold' for a call to be answered can further increase anger levels as customers grow impatient (Unzicker, 1999). This anger may then be taken out on employees, as representatives of the organisation (Dormann & Zapf, 2004).

Call centre employees subjected to customer aggression may experience significant detrimental well-being consequences (e.g., Grandey, Dickter, & Sin, 2004), with potential implications for their performance, because they are typically required to adhere to strict rules about the types of emotions they ought to express when dealing with customers (Lewig & Dollard, 2003). When dealing with an aggressive customer, employees will need to engage in 'emotion regulation' to maintain appropriate expression of emotion, which can exacerbate the strain associated with aggression (Niven, Sprigg, & Armitage, 2013; Niven, Sprigg, Armitage, & Satchwell, 2013).

3. Methodology of the study

Members of staff at an inbound customer service call centre were invited to take part in the study. An experimental study design was used, which involved three repeated measures conditions that differed according to the music played to customers while 'on hold'. The key outcome variables were measured from the perspective of employees, who were not informed that any intervention was taking place; thus any differences between conditions could more confidently be attributed to the hold music as opposed to employee expectations.

3.1. The intervention

The intervention involved changing the 'hold' music that callers were played when they phoned the call centre. The 'prosocial' music intervention was compared to two types of other music: (i) 'no change' which involved the music that was usually played at the call centre (generic background music); and (ii) 'neutral' which involved music by the same artists as the prosocial music, to check that any improvements were not simply due to musical preferences of the callers (e.g., being a fan of a particular artist or band).

Prosocial music: Michael Jackson 'Heal the world'; The Beatles 'Help'; Bob Sinclar 'Love generation'

Neutral comparison music: Michael Jackson 'On the line'; The Beatles 'Octopus's garden'; Bob Sinclar 'Rock this party'

To ensure that any differences between the conditions were due to the music being played and not something specific to a particular day or week, a timetable was devised so that the music was changed daily over a three-week period.

3.2. Study measures

3.2.1. Hourly surveys. At the end of each hour of work during the three-week study period, employees were asked to complete a very short (30 seconds) survey about the level of anger of the callers they had dealt with in the past hour. Caller anger was assessed using items from the UWIST mood checklist relating to anger (e.g., "Annoyed"; Matthews, Jones, & Chamberlin, 1990).

3.2.2. End of day surveys. At the end of each day of work during the three-week study period, employees were asked to complete a slightly longer (5 minutes) survey about how they felt at the end of the working day and the extent to which they had tried to manage their emotions during the day. Specifically, the measures included in this end of day survey, were as follows:

- Emotional exhaustion (Maslach & Jackson, 1981). A measure of feelings of exhaustion relating to one's work (e.g., "Burned out")

- Emotion regulation (Grandey et al., 2004; Robinson & Alloy, 2003). A combined measure of strategies used to deal with one's emotions at work. Includes the adaptive strategy of 'deep acting' whereby a person regulates felt as well as displayed emotion (e.g., "I tried to see things from a caller's point of view"), and the maladaptive strategies of 'surface acting' whereby a person alters the display of emotion only (e.g., "I faked my feelings"), 'venting' whereby a person does not adhere to requirements to display positive emotion (e.g., "I expressed anger to a rude or aggressive caller"), and 'rumination' whereby a person continues going over negative events like difficult calls in their mind (e.g., "I kept thinking about a stressful call long after it had finished").

3.2.3. Objective data. Objective data relating to employee performance was obtained, to try to establish whether the intervention and/or caller anger and aggression would influence employee performance. Specifically, the number of calls taken by each employee on each day of the study, and the average length of the calls, was measured.

3.3. Participants

An inbound customer services contact centre was approached to participate in the study. The call centre employed 30 staff (10 of these part-time). Data collection occurred in January-February 2013. A total of 25 employees (20 females and 5 males; average age = 34 years; average tenure = 4 years) provided sufficient data to be included in the study. On average, these workers provided data on over 90% of the days that they worked during the study period. Because the study involved a great deal of time from participating employees, all full-time employees were paid £40 in Amazon vouchers for their time, while part-time employees were paid £30.

3.4. Summary of methodology

- 25 employees from a UK-based customer service call centre took part in the study
- Participants completed daily surveys (at the end of each hour and at the end of the day) for a three-week period, reporting on the anger of their callers and their own well-being and emotion regulation
- Objective performance data for each study day was also collected
- On a third of the days during the study the music played as 'hold' music for callers was not changed; on another third of the days callers were played prosocial music; and on the final third of the days callers were played neutral music
- Participating employees were not told that there was an intervention, so any differences between the days should be due to the music played

4. Findings of the study

4.1. Can prosocial music 'heal the world'?

To determine whether the intervention was successful in reducing the levels of caller anger, multilevel modelling in SPSS was used to analyse the data. The data in the present study is nested, because observations at the hourly- and daily-levels are nested within individuals. Multilevel modelling allows the user to correctly partition variance at the multiple levels. Condition was a categorical predictor variable with three levels (no change, prosocial, neutral), which were compared in the analyses to look for differences in the key outcome variables. In all analyses, gender, age, and tenure were controlled for.

4.1.1. Effects on caller anger. The first analysis tested whether condition (no change, prosocial, neutral) predicted caller anger, as rated by the call centre employees. Because employee ratings of caller anger were hourly, a three-level multilevel model was used, with hourly ratings nested within days nested within participants. The main independent variable, condition, was at the day-level, while the control variables were at the person-level.

The analysis revealed that there was a significant effect of the intervention on caller anger. However, the pattern of results was not as expected. While caller anger was slightly lower in the prosocial condition than the no change condition, this difference was not significant. Instead, the only significant difference was between the neutral and no change conditions, with music that had neutral lyrics producing the lowest levels of caller anger.

4.1.2. Effects on employee well-being. The second analysis tested whether condition predicted employee emotional exhaustion. Because employee ratings of this variable were daily, a two-level multilevel model was used, with daily ratings nested within participants. As in the previous analyses, the independent variable, condition, was at the day-level, while the control variables were at the person-level.

The results again revealed the same pattern – there was a significant effect of the intervention, but the only significant differences were between the neutral and no change conditions. In this case, employees' exhaustion levels were lowest in the neutral music condition.

Key finding 1: The intervention did have an impact on caller anger and employee emotional exhaustion. However, the prosocial music was not responsible for this effect – neutral music showed more potential for reducing anger and improving exhaustion levels.

4.1.3. Effects on employee performance. The final set of analyses examining the effects of the intervention tested whether condition (no change, prosocial, neutral) predicted employee performance, in terms of number of calls taken and average call length. A two-level multilevel model was used to analyse this data, with daily ratings of performance nested within participants, and gender, age, and tenure included as controls. No significant effects were observed.

4.2. How does dealing with angry and aggressive callers affect call centre employees?

The data collected are not just informative about the efficacy of the intervention intended to reduce caller anger and aggression; they can also be used more generally to explore how caller anger affects employees on a day-to-day basis. Further analyses, using multilevel modelling as described above, were therefore conducted to explore: (i) whether caller anger had negative effects on employee well-being and performance; and (ii) whether increased employee emotion regulation was responsible for these potential negative effects.

The results suggested that the levels of angry callers taken by employees throughout the day had a large impact on employees' well-being, with higher levels leading to increased emotional exhaustion. No links to performance were observed, however.

When higher levels of angry callers were received, employees engaged to a much greater extent in all types of emotion regulation. There was no evidence that the adaptive emotion regulation strategy of deep acting mediated the effects of caller anger on employee well-being. In other words, employees' use of deep acting in response to caller anger did not account for the negative effects of caller anger on employees' well-being. However, there was evidence of partial mediation in the case of all three of the maladaptive emotion regulation strategies, i.e., surface acting, venting, and rumination. Thus, employees' use of these strategies to deal with caller anger in part explained why caller anger resulted in higher employee emotional exhaustion.

Key finding 2:



4.3. Summary of results

- The prosocial music intervention did not show a great deal of promise in reducing anger in this particular field context
- However, the music used as 'hold music' did influence caller anger and employee exhaustion, with the lowest levels observed on days when popular music with neutral lyrics was played to callers
- There was clear evidence that caller anger negatively impacted employees' well-being, and that part of the reason for this was that employees engaged in maladaptive emotion regulation strategies to deal with caller anger

5. Discussion and recommendations

The aim of the present research was to test a novel intervention to reduce aggressive behaviour at work. The intervention involved playing people music with lyrics about helping others, and was tested in a call centre to try to reduce the anger of callers towards employees.

Changing the music played at the call centre showed some promise in reducing caller anger and improving employee well-being compared to the generic background music that was already used in the call centres. However, it was not the music with prosocial lyrics that proved effective, even though the research on which this study was based reported strong effects across a series of studies comparing the same prosocial and neutral music pieces (Greitemeyer, 2011). Instead, music with neutral lyrics emerged as a more promising candidate for future interventions.

The present findings suggest that Greitemeyer's effect may not translate outside of the laboratory, at least not to call centres; while popular music in general might be helpful for reducing caller anger, prosocial music does not appear to have any added advantage. In call centres, people's anger stems from real issues, rather than being artificially induced. While listening to upbeat popular music might lead to a short-term boost in mood and even behaviour, the lyrics of the music might not sufficiently penetrate these genuine concerns.

Additional exploration of the study data suggested that experiencing anger from callers had important effects on employees' day-to-day well-being, leaving them feeling emotionally exhausted by the end of the day. Furthermore, use of surface acting (faking one's feelings), venting, and rumination strategies during the day was partly responsible for these negative effects. Thus, one key reason why being aggressed might negatively influence victims is that they resort to using maladaptive strategies to manage their emotions.

5.1. Contributions of the research

The present research has advanced knowledge in two key ways:

- It tested the use of a prosocial music intervention to reduce caller anger in a call centre. Prosocial music has thus far only been tested in laboratory conditions, so it was unknown whether it would be useful for reducing real, everyday instances of aggression. An effective and low-cost method of dealing with aggression in workplaces (and other public contexts, e.g., bars, concerts, sports venues) has yet to be identified, so as the first test of this potential intervention, the research made a large contribution. The results suggested that the intervention had limitations in translating to the call centre context.
- It identified maladaptive emotion regulation as an important mechanism through which workplace aggression exerts effects on employees. In particular, strategies like surface acting, venting, and rumination, seem to be instrumental in explaining why employees may end up feeling exhausted after being exposed to others' anger. These results are important for identifying alternative ideas for interventions.

5.2. Limitations

There are some important limitations that should be acknowledged, to contextualise the contributions and recommendations of the research. First, the research is based on a relatively small sample of people. Although multiple observations across multiple days were gathered, a larger sample would give greater confidence to generalise the findings to other call centres. It should also be noted that the present research only tested the prosocial music intervention in one type of context. Although the intervention had limited success in call centres, it might still be useful in other work organisations and/or other public settings.

Second, as a field test of the prosocial music intervention, the amount of experimental control in the present study was relatively low. Although efforts were made to provide a robust test of the intervention (e.g., by not informing employees that any intervention was taking place), there may have been some confounding factors that were unable to be controlled.

5.3. Recommendations

1) Consider the use of popular music as 'wait' and 'hold' music

The results of this study suggest that when popular music with neutral (i.e., non-prosocial) lyrics is played to callers, they may begin their calls feeling less angry and thus be less inclined to speak to call handlers in a rude or aggressive manner. Further work is needed though to determine exactly which types of popular music are most effective for improving caller mood and behaviour.

2) Employees should manage their feelings in a way that does not leave them feeling drained

When dealing with angry callers, most employees have to engage in emotion regulation to keep their cool and maintain professional service. But the present study suggests that certain strategies (surface acting, venting, and rumination) may contribute towards poor well-being. Deep acting strategies like trying to take the caller's perspective or trying to focus on positive aspects of a situation, on the other hand, do not seem to have the same negative impact. Such strategies can be encouraged via employee training.

3) Employees should use their time away from work most effectively to recover

Recovery from work is essential, especially after a stressful day with lots of difficult callers. Employees should engage in activities that allow them to forget about their work during 'off-job' time. Whatever activity is chosen, it needs to be something that is absorbing and takes their mind off work, so that it allows them to recover and relax, to avoid negative work related thoughts and worries from intruding.

5.4. Impact of research

The present research has so far resulted in two conference papers. A 40-minute interactive talk at the Division of Occupational Psychology conference in January 2013 shared the aims and design of the study with an audience of academics and practitioners and raised wider issues about the effects of music in the workplace. A 20-minute presentation at the Academy of Management conference in August 2013, as part of a symposium I organised on workplace mistreatment, shared the results of the study with international academics. Further dissemination plans are in place to write up the key findings for a journal publication and for a piece in *The Psychologist*.

Beyond academic impact, the research has also had practical impact. The participating call centre has changed the music used as their 'wait' and 'hold' music for several months now and will continue to do so for at least the next year. By using popular music instead of the generic background music previously used, the results of the present study suggest that they may be reducing the anger of their callers (which should be beneficial in itself to help them avoid the negative health consequences of anger; e.g., Smith, Glazer, Ruiz, & Gallo, 2004), and thus improving the well-being of their employees. Reports were also produced for the call centre, which were distributed to all participating employees.

A dissemination workshop, to be held in Manchester Business School, will enable further practical impact. Although this workshop was planned for the summer of 2013, practical constraints have meant that the workshop has been postponed until later in the year. In collaboration with the Fairness at Work Research Centre, the workshop will involve presentations and discussions about customer service, dealing with difficult customers, and music in the workplace. The event will be advertised to and attended by representatives from local retail and service businesses.

Finally, talks are ongoing with music licensing firms PRS and PPL to publicise the findings of the research on their websites, so that other call centres and public places can consider how the music they play might affect their customers or patrons.

Niven, K. Aggressive customers, emotion regulation, and performance: A daily diary study. In Niven, K., & Reich, T. Emotions and workplace mistreatment from multiple perspectives. *Presented at Academy of Management Conference, August 2013, Florida, USA.*

Niven, K. (2013). Can music in the workplace have benefits for employees? *Presented at British Psychological Society, Division of Occupational Psychology Conference, January 2013, Chester, UK.*

6. References

- Areni, C. S., & Kim, D. (1993). The influence of background music in shopping behavior: Classical versus top 40 music in a wine store. In L. McAlister & M. L. Rothschild (Eds.), *Advances in consumer research* (pp. 336-340). Provo, UT: Association for Consumer Research.
- Brodsky, W. (2002). The effects of music tempo on simulated driving performance and vehicular control. *Transportational Research Part F*, *4*, 219-241.
- Dormann, C., & Zapf, D. (2004). Customer-related stressors and burnout. *Journal of Occupational Health Psychology*, *9*, 61-82.
- Giga, S. I., Hoel, H., & Lewis, D. O. (2008). *The costs of workplace bullying*. Report commissioned by the Dignity at Work Partnership.
- Grandey, A. A., Dickter, D. N., & Sin, H. P. (2004). The customer is not always right: Customer aggression and emotion regulation of service employees. *Journal of Organizational Behavior*, *25*, 397-418.
- Greitemeyer, T. (2009a). Effects of songs with prosocial lyrics on prosocial thoughts, affect, and behavior. *Journal of Experimental Social Psychology*, *45*, 186-190.
- Greitemeyer, T., (2009b). Effects of songs with prosocial lyrics on prosocial behavior: Further evidence and a mediating mechanism. *Personality and Social Psychology Bulletin*, *35*, 1500-1511.
- Greitemeyer, T. (2011). Exposure to music with prosocial lyrics reduces aggression: First evidence and test of the underlying mechanism. *Journal of Experimental Social Psychology*, *47*, 28-36.
- Hershcovis, M. S., & Barling, J. (2010). Towards a multi-foci approach to workplace aggression: A meta-analytic review of outcomes from different perpetrators. *Journal of Organizational Behavior*, *31*, 24-44.
- Lesiuk, T. (2005). The effect of music listening on work performance. *Psychology of Music*, *33*, 173-191.
- Lewig, K. A., & Dollard, M. F. (2003). Emotional dissonance, emotional exhaustion and job satisfaction in call centre workers. *European Journal of Work and Organizational Psychology*, *12*, 366-392.
- Maslach, C., & Jackson, S. E. (1981). The measurement of experienced burnout. *Journal of Occupational Behavior*, *2*, 99-113.
- Mathews, G., Jones, D. M., & Chamberlain, A. G. (1990). Refining the measurement of mood: The UWIST Mood Adjective Checklist. *British Journal of Psychology*, *81*, 17-42.

- Niven, K., Sprigg, C. A., & Armitage, C.J. (2013). Does emotion regulation protect employees from the negative effects of workplace aggression? *European Journal of Work and Organizational Psychology, 22*, 88-106.
- Niven, K., Sprigg, C. A., Armitage, C. J., & Satchwell, A. (2013). Ruminative thinking exacerbates the effects of workplace violence. *Journal of Occupational and Organizational Psychology, 86*, 67-84.
- Robinson, L. A., & Alloy, L. B. (2003). Negative cognitive styles and stress-reactive rumination interact to predict depression: A prospective study. *Cognitive Therapy and Research, 27*, 275-292.
- Rogers, K., & Kelloway, E. K. (1997). Violence at work: Personal and organizational outcomes. *Journal of Occupational Health Psychology, 2*, 63-71.
- Smith, T. W., Glazer, K., Ruiz, J. M., & Gallo, L. C. (2004). Hostility, anger, aggressiveness, and coronary heart disease: An interpersonal perspective on personality, emotion, and health. *Journal of Personality, 72*, 1217-1270.
- Sprigg, C. A., Smith, P. R., & Jackson, P. R. (2003). *Psychosocial risk factors in call centres: An evaluation of work design and well-being*. Report for the Health and Safety Executive.
- Unzicker, D. (1999). The psychology of being put on-hold: An exploratory study of service quality. *Psychology & Marketing, 16*, 327-350.
- Warr, P. (1990). The measurement of well-being and other aspects of mental health. *Journal of Occupational Psychology, 63*, 193-210.