

Do Counterstereotype Examples in Films Influence People's Stereotypes of African Americans?

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Abstract: Due to the higher consumption of social media in the development of technology and the pandemic of Covid-19, social media effects on people were studied. It has been proved that characters in films can influence people's thoughts, and by showing counter stereotypical role models to children, their gender stereotypes changed in the short term. Since African Americans have constantly been subjected to negative stereotypes in films and everyday lives for a long time, this study proposal aimed to study the counterstereotypes in films and cultural effects on film major students' stereotypes by utilising the Stereotype Content Model (SCM) and the Implicit Attitude Test (IAT) to measure their explicit and implicit attitudes. Since the study had no chance to carry out, this study predicted the possible results that both Chinese and American students' attitudes toward negative racial stereotypes declined after a designed lecture on stereotypes. Conversely, it was also expected that their perspectives might not change because the designed lecture was not practical enough.

Keywords: stereotypes, counterstereotypes, Stereotype Content Model (SCM), Implicit Attitude Test (IAT).

1. Introduction

Stereotypes refer to the “widely held, simplified, and essentialist belief about a specific group [1]. Based on Cardon, it can be divided into two categories: projected cognitive similarity and outgroup homogeneity effect [2]. Projected mental similarity means that people are likely to presume other group members share the same values as they do [2]. And outgroup homogeneity effect is when people think other group members have the same characteristics while considering their ingroup members as distinctive [2]. This study proposal mainly focuses on investigating the outgroup homogeneity effect.

Stereotypes exist in mass media, and statistics revealed a rise in media use in everyday life. According to Statista [3], American adults spent 750 minutes on major media such as television, radio and so on in 2019. While in China, 395 minutes were estimated to spend on media in 2019 (this may include fewer categories of media than American data do, so there is a vast difference between the data). This figure has increased rapidly under the circumstance of Covid-19 when cities and countries are locked down. With the high amount of media consumption, there might be one question about what media does to people. Tsftati and Cohen suggested that media significantly affects what and how people think [4]. Among all types of media, films show their ability to combine elements (e.g., images,

sounds, music, etc.) together, and create adoptions for audiences to take various styles and characteristics that characters hold in films, which can help audiences reflect on their lives [5,6]. In this case, films are believed to have a powerful effect on people's opinions and thinking.

However, this effect can be either positive or negative. More specifically, many films contain stereotypes which will make audiences harden their mind about some negative features of different cultures. For example, in Hollywood films, black people are often portrayed as villains, which could enhance audiences' inaccurate impressions of black people. These stereotypes cannot be applied to all people in that group. Hence, there should be methods to avoid these outgroup homogeneity effects of other cultures.

Given that films exert such a powerful influence on the attitudes and opinions of people, it seems reasonable that films with counter stereotypes will also have an impact on audiences. According to Olsson and Martiny, when children were briefly exposed to counter stereotypical role models (e.g., female physicians), their gender stereotypes changed in the short term [7]. With the support of this finding, this study proposal explores whether exposure to films with counter stereotypical characters will reduce outgroup homogeneity effects. This study used the Stereotype Content Model (SCM) to measure the explicit attitudes toward stereotypes. It is a psychological model that postulates that when people encounter a new group of people, they tend to stereotype them based on warmth and competence (i.e., kindness and capacity). And ratings of these two dimensions reflect their stereotypes toward the group [9,10]. Since the SCM may contain social desirability, this study also used the Implicit Attitude Test (IAT), which tests people's automatic preferences and subconscious attitudes [11]. Therefore, it was chosen to measure participants' implicit attitudes toward stereotypes about the counter stereotypical examples. This study predicts an overall decrease in outgroup homogeneity effects for Chinese and American participants, while American participants may show a more considerable decline.

2. Method

2.1. Participants

One hundred film primary university students from the United States who self-identified as European Americans ($M_{\text{age}} = 20.8$ years) were recruited as the American sample. Another 100 film majors from China ($M_{\text{age}} = 21.1$ years) were selected as the Chinese sample. Fifty participants from each sample are in the control group, while the rest are in the experimental group.

2.2. Materials

The prime purpose of this study was to compare the outgroup homogeneity effect on participants before and after the exposure to a film with counter stereotypical characters. Thus, this study prepared a regular lecture as an intervention for experimental groups. In this lecture, their professor would introduce appreciation of portrayals of African Americans in a film called *Green Book* [8]. In this film, the main character Don Shirley was an African American musician who was gentle, rich, and of high social status. This was different from the stereotype that most people held of African Americans in the 1960s. The professor did not highlight counter stereotypes in the film during the lecture because it was designed to be the same as their typical lectures about forming multi-dimensional and balanced characters when producing films.

Pilot data were collected from 20 participants (university students from China or the United States). After watching *Green Book*, the most common reviews given by our pilot participants were about proposing equality and reducing racial discrimination and negative stereotypes about African

Americans. This explicated that this film could provoke pilot participants to think about stereotypes to some extent. Yet, their focus was on racial problems.

To obtain participants' explicit and implicit attitudes towards stereotypes of African Americans, our study chose to utilise the SCM and Race IAT. The SCM required two phases. In the first phase, pilot participants (20 university students from China or the United States) were asked to suggest three groups that most people know of. In other words, three groups were provided that preliminary participants most offered. The second phase divided 100 American participants into three groups and asked them to rate the warmth and competence of the group that they were allocated to using a Likert scale. Then, a 2-dimensional space was generated to assess their attitudes towards their rated groups. For example, in Figure 1 below, if participants rate the group with high competence and warmth, this group is with high status and not competitive and is considered their ingroup members.

The race IAT had seven trials. The first trial required participants to pair portraits of children with either European American or African American children separately on the top right and left corners of the screen. In the second trial, participants needed to link evaluative concepts to two-word types, which were pleasant or unpleasant words. It then combined children's races with word types for participants to pair in the following two trials. Additionally, the children's race location changed in the fifth trial. Further, the combination of races and word categories changed in the last two trials.

		Competence	
		Low	High
Warmth	High	Paternalistic stereotype low status, not competitive (e.g., housewives, elderly people, disabled people)	Admiration high status, not competitive (e.g., ingroup, close allies)
	Low	Contemptuous stereotype low status, competitive (e.g., welfare recipients, poor people)	Envious stereotype high status, competitive (e.g., Asians, Jews, rich people, feminists)

Figure 1: Stereotypes Content Model [12].

2.3. Procedure

All participants took the pre-test, which contained both SCM and IAT. A week later, experimental groups were given the lecture while the control group did not. After that, both experimental and control groups were asked to do the same SCM and IAT again.

3. Results

Considering that there was no reasonable chance for the experiment to occur, two predicted results are presented here.

3.1. Condition 1

Descriptive data of IAT scores of both ethnic groups were shown in Table 1 and 2. In these predicted results, comparisons of SCM and IAT scores from pre- and post-tests found significant declines in outgroup homogeneity effects for Chinese and American experimental groups. Whereas no significant differences were detected in both SCM and IAT for both control groups, there were only some fluctuations between their ratings and scores. Chinese pilot participants selected three groups in the pre-test: the homeless, basketball players, and celebrity groups. Overall, Chinese participants rated the homeless group as a contemptuous stereotype ($M_{\text{wamth}} = 2.54$, $M_{\text{competence}} = 2.34$). At the same time, ratings of the other two groups fell in admiration stereotypes. American participants had similar ratings as did Chinese participants. Their pilot participants suggested the homeless, students and celebrities. Similar ratings were found for the homeless group, where ($M_{\text{wamth}} = 2.12$ and $M_{\text{competence}} = 2.13$). Additionally, 90.9% and 84.8% of participants considered student and celebrity groups as admiration stereotypes separately.

After the lecture, the Chinese experimental group showed an increase of 8.56% in ratings of the homeless group ($M_{\text{wamth}} = 2.76$, $M_{\text{competence}} = 2.15$). There were no significant differences found in ratings of basketball players and celebrities. For the American experimental group, changes in ratings of the homeless group were much more extensive, where $M_{\text{wamth}} = 2.38$, $M_{\text{competence}} = 1.88$ (increased by 12.08%). Moreover, all the participants thought the other two groups admirable.

According to descriptive statistics in Table 1. Chinese participants showed a slight decrease (0.07) in their scores, indicating that they show more preference for African Americans. Changes in IAT scores for the American experimental group showed consistency with our hypothesis.

Table 1: Descriptive data of IAT scores for the Chinese experimental groups.

Tests	M (SD)	95% CI
Pre-test	0.54 (0.17)	[0.49, 0.59]
Post-test	0.47 (0.30)	[0.41, 0.53]

Note. CI = confidence interval

Table 2: Descriptive data of IAT scores for the American experimental groups.

Tests	M (SD)	95% CI
Pre-test	0.74 (0.15)	[0.70, 0.78]
Post-test	0.66 (0.16)	[0.62, 0.70]

Note. CI = confidence interval

3.2. Condition 2

Alternatively, the results may fail to meet our hypothesis, showing no differences in SCM ratings, IAT scores, or even increases. Yet only fluctuations were discovered in both control groups. Data from the pre-test may be similar to the one in condition 1 for both Chinese and American groups. After the lecture, ratings of the Chinese experimental group for the three groups remained analogous. Likewise, the American experimental group showed no essential differences when comparing SCM ratings for all three groups.

Regarding the race IAT, the Chinese experimental group gained slightly higher post-test scores than those in the pre-test. However, the American experimental group had comparatively higher scores for the IAT in the post-test. In contrast, American participants showed more tremendous changes after the lecture.

4. Discussion

4.1. Condition 1

The predicted results indicate that films with counter stereotypical characters reduce outgroup homogeneity effects. This may be because both Chinese and American participants learned that African Americans can be diverse and that the most recognisable stereotypes do not apply to every one of them. Therefore, their explicit and implicit attitudes toward African Americans implies that they have more knowledge of this group and have fewer bias generated by negative stereotypes. Moreover, the outgroup homogeneity effect is also reduced. Once they know that African Americans were not always the same as those negative stereotypes portrayed, they will not apply that stereotype to the whole group.

Furthermore, the more significant decline in the outgroup homogeneity effect in the American group can be explained by Spencer-Rodgers et al. [13]. They found that Chinese were much easier to apply stereotypical and dispositional characteristics to a group without having more discrimination against the group. In this case, since the Chinese have fewer chances to get in touch with African Americans and have less knowledge of this group than Americans, the outgroup homogeneity effect will be more brutal to reduce only with an intervention of the lecture about Green Book.

Apart from these, there are some limitations of our experiment. First, the post-test was taken immediately after the lecture, which means our predicted results may be the products of short-term effects. And it is still unknown whether counter stereotypes can reduce the outgroup homogeneity effect in films in the long term. Second, some participants may have already watched the film Green Book and had their points of view about this film. Therefore, they might think this film is more about equality of rights than reducing negative stereotypes. Finally, since our participants were all film majors, they could more easily understand the counter stereotypes in the film. Still, since this study only planned to recruit film major students, it failed to capture the influences of age and education of people on understanding the deeper meaning of the formations of counter stereotypical characters.

4.2. Condition 2

These predicted results show less consistency with our hypothesis. It is possible that the film in this study was not appropriate for helping reduce stereotypes, and participants might think this film was about racial discrimination and proposing equal rights. If they did not relate the film to counter stereotypes, it would be difficult to find changes in their attitudes towards stereotypes of African Americans influenced by outgroup homogeneity effects. However, the higher increase in the IAT scores of the American experimental group may be explained by Americans considering this film as fake racial harmony. In other words, they are aware of the situation of stereotypes about African Americans, and they are sure this stereotype cannot be reduced quickly.

Furthermore, another white character in the film supported Don Shirley and helped him achieve his success. This means that although Don Shirley was portrayed against common negative stereotypes in this film, he still needed European Americans to assist him in overcoming difficulties. Thus, American participants may show more preference for European-Americans after the lecture. And this is accidentally consistent with one of our predictions.

5. Conclusion

In this study, two different results were predicted. In condition 1, the results were explained by a better understanding of groups from other cultures. In other words, the outgroup homogeneity effect would have fewer influences on people's attitudes towards their stereotypes with sufficient knowledge. In this case, Americans know African Americans better than Chinese. Hence, Americans had a more significant reduction in negative stereotypes. In condition 2, this study failed to obtain compatible results. This was attributed to the design of the intervention, which did not entirely focus on counter stereotypes. Therefore, with proper intervention, the results may be similar to the one in condition 1.

This study proposal focused on a relatively underexplored area: the effects of counter stereotypical examples in films. If the results are as predicted in condition 1, more counter stereotypical characters can be portrayed in films to reduce stereotypes and prejudices towards specific groups. Moreover, with the decreasing stereotypes, there will be more equality in society, reducing unnecessary arguments about ethnic groups. Future research can shift the focus to test whether counter stereotypical examples in films have a long-term effect on the audience. Additionally, this study only included film major students who may better understand the underlying meanings of the portrayals in films. Therefore, future research can recruit people of different ages, nationalities, and education levels to see whether the predicted results in condition 1 are consistent with the other groups of people.

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