

# Explore the Influence of Reading Hellish Gags on Negative Emotions

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**Abstract.** Disparagement humor is a kind of communication that includes denigration but draws forth amusement, while a hellish gag is one of the typical forms of that. A hellish gag is a kind of joke that uses other people's disability, tragedy, illness, racial discrimination, war, occupation, death, etc., as a point of humor. This study modeled a mediation test using reading hellish gags, sympathy, and discrimination against blacks, and designed a single-blind experiment to test the null hypothesis. The results showed that reading hellish gags significantly impaired empathy. In addition, It was determined that diminished empathy fully mediated the relationship between reading hellish gags and increased discrimination against blacks, with the mediating effect accounting for 100% of the total effect. Also, some people may be offended and unable to appreciate the humor when the hellish gags involve something related to the group of people comprehending the humor.

**Keywords:** Hellish gags; Disparagement humor; Prejudice.

## 1. Introduction

Before studying the negative emotions triggered by reading hellish gags, it is necessary first to have a clear grasp of what hellish gags are and how hellish gags occur. Generally, it is a joke that uses other people's disability, tragedy, illness, racial discrimination, war, occupation, death, etc., as a point of humor [1]. It's hard to pinpoint precisely when hellish gags started to occur on the internet; the only thing known was that they emerged as a reaction to excessive political correctness by a small group of people. This set the basic style for hellish gags, as they were dedicated to taunting others in the first place and were highly anti-politic. Later, hellish gags flooded 4chan [2], an American far-right website where users often complain about real-life. This atmosphere, combined with the site being automatically refreshed every 24 hours, has allowed extremist ideas to flourish [3]. Among those jokes, everyday events or people included are Steve Hawking's disability, racism, the assassination of former US President John F. Kennedy, and the 9.11 terrorist attacks [4]. As its name suggests, they are called hellish gags because if one understands and laughs at them, one could be considered inhuman and deserve to go to hell.

More profoundly, hellish gags are essentially a form of disparagement humor. Disparagement humor takes pleasure in denigration, as it slanders, belittles, and calumniates a specific person or a social group [5, 6]. Consider this hellish gag teasing the black: "In a history class, the teacher asked her students what the most popular commodity was from the 16th century to the 19th century. A black boy raised his hand, and the teacher said, 'Correct. Anything else?' [7]. In this hellish gag, the social group of black is targeted. The reader has to deal with both the joy of understanding the joke and the sense of offense. Based on the Incongruity-Resolution Model [8], understanding humor depends on the difference between the expectation hinted at by the story and what's going to be the punch line. From this theory, it can be inferred that there are two main stages of understanding jokes: detection of difference and resolution of the paradox. To comprehend humor, it is vital to reread the joke. By raising the hand of the black student, one presumes that the student is not treating himself as a commodity but is preparing to answer the question. However, the teacher said something unexpected and apparently incongruous in the punchline: 'Correct. Anything else?' This reaction is far from people's expectations that the teacher would allow the black boy to answer the question, indicating that the teacher knew it was the raciest joke. To comprehend the punch line, one needs to think over the meaning of "Correct. Anything else?" again and attribute it to other possible meanings to

comprehend the joke: “the teacher regards the black boy as a commodity now, despite the large scale of human trafficking has been ceased for many years.” As soon as the contradiction can be understood, the joke makes sense, and a feeling of amusement will come. However, laughing at a disparagement joke is neither socially nor morally appropriate. To admit that a disparagement joke is funny is to accept, or even participate in, insulting a group of people. In this vein, hellish gags as a kind of disparagement humor are likely to lead to a sense of guilt and embarrassment [9].

Based on the above interpretation of hellish gags, it seems that reading them for purely moral reasons causes people to be less aggressive toward targeted social groups (i.e., black) because of guilt. Nevertheless, according to several experiments, the outcomes are more complicated. One experiment studied the effect of violence on adolescent aggression by showing high school students animations with violent close-up footage [10]. Aggression and hostility were quantified in the experiment by giving participants an AQ (aggression questionnaire) [11] and allowing them to punish other participants who were required to put on the headset by using 80 decibels, 90 decibels, 100 decibels, and 110 decibels. The results revealed that the students who watched the violent and humorous animation imposed more severe punishment than those who watched the violent and unhumorous animation.

Interestingly, another study of the effects of hostile humor on aggression came to the opposite conclusion. The participants were reprimanded by research fellows and then asked to read either hostile or non-hostile jokes [12]. When asked what they thought of the researcher who reprimanded them, those who read the cruel joke reported lower levels of anger.

This study aims to answer several questions about how hellish reading gags affect the negative emotions of humans: Do hellish reading gags make people less sympathetic? Or do hellish reading gags that ridicule black people make people more hostile or discriminatory toward black people due to the lack of sympathy?

## 2. Methodology

### 2.1 Explanation of Mechanisms

This study hypothesized that reading hellish gags would cause people to discriminate more against black people after causing them to be less compassionate, so it is necessary to quantify empathy and discrimination against black people in the experiment.

To quantify empathy, subjects would be given 15 situations that might stimulate their moral judgment and empathy (such as a black man being pinned to the ground by a police officer and shouting “I can’t breathe”) and asked how amusing they find each situation by using a scale of 0 to 100. At the end of the experiment, the subjects' ratings would be collected to analyze changes in their empathy.

To quantify discrimination against black people, it is necessary to use a single-blind mechanism. In a world where political correctness has become mainstream, even if subjects are told that their answers will not be leaked, they will still make more socially desirable choices to protect their ethical reputation [13]. From this aspect, although the Bogardus scale has been widely accepted as a measure of racial discrimination [14], the data becomes invalid once the questions make the subjects aware that they are being tested about racial discrimination, while the purpose of this study is to investigate the subtle influence of reading hellish gags on racist thoughts. Since the problems in the Bogardus scale are related to racial thoughts (i.e., Do you allow your children to marry a black man?), this study will not use this scale. Instead, participants would be informed that this study is about the effect of reading hellish gags on human moral judgments and asked to complete the modified scale of moral judgment when measuring discrimination.

The Defining issues test (DIT) is the scale chosen to be modified. The DIT consists of six moral dilemma stories; each story has twelve questions corresponding from stage two to stage six in Kohlberg's stages of moral development [15]. The core of DIT is to measure a subject's level of moral

development by counting the number of questions reflecting the two highest stages of moral development selected into the four most important questions [16].

In this study, most of the questions in DIT would be modified to fit the requirement of this experiment. If subjects were more discriminating against black people after they read hellish gags, their top four questions would be more likely to relate to blaming black people and preventing them from getting more benefits when the moral dilemma stories had black protagonists instead of original protagonists. The following example will make this clearer.

Original: There was an unprecedented famine in a small village. Some families even made soup out of the bark. Jack's family was starving to death. He had heard that a rich man in his village had hoarded some grain to sell for a windfall when prices rose. Jack was desperate to steal some grain from the rich man's granary. He thought he would not be detected if he just stole a little.

Modified: There was an unprecedented famine in a European city (implying that most residents are white). Black slum dwellers even made soup out of the bark. Jack lived in it (implying a racial difference), and his family was starving to death. He had heard that a rich man in his city had hoarded some grain, ready to sell it for a windfall when prices rose. Jack was desperate to steal some grain from the rich man's granary. He thought he would not be detected if he just stole a little.

Some selected questions: (1) It is understandable for a loving father to steal for the sake of his family, isn't it? (2) People should follow community laws, shouldn't they? (3) Whatever it takes, it's wrong to steal, isn't it? (4) Rich man deserved to be stolen if he made a fortune from disaster, shouldn't he?

Changing some conditions in moral dilemmas could create a conflict between races. Among the questions above, questions one and four blame the rich, while questions two and three blame blacks. If subjects become more discriminating against blacks due to reading hellish gags, they are likelier to list questions two and three among the top four essential questions and less likely to add questions one and four to that list. Then, when quantifying the degree of discrimination, the number of questions that consider racism (i.e., questions 2 and 3 above) selected by subjects in the four most important questions can be used to determine whether there is a change.

## 2.2 Experiment Design

First part: Ask all the subjects to assess their interest in each situation using a scale from 0 to 100.

Second part: The first group will read a set of hellish gags about several popular topics and then assess the 15 situations again. After that, they will finish the DIT with origin stories and modified questions. The second group will first read a set of hellish gags mainly about discriminating against black and then assess the 15 situations again. After that, they will finish the DIT with modified stories and questions. The third group will go through a similar process to group two, but the number of racial jokes will differ.

Materials: The set of hellish gags provided to group one is thirteen hellish gags, mainly including the passion of the Christ, the assassination of Kennedy, the 9.11 terrorist attacks, and other themes.

The set of hellish gags provided to group two will include Kobe Bryant's plane crash, discrimination against black and other themes, including three Kobe Bryant jokes, three jokes about black discrimination, and seven other themes. (Will does not include other racial discrimination jokes since this may disturb the effect of reading jokes about black discrimination.)

The set of hellish gags provided to group three will include similar topics to the material for group two. The only difference is the number of hellish gags about black discrimination will increase to six and maintain the total number at thirteen hellish gags.

Subjects: Select three groups of subjects; each group should contain 20 senior students in China. Before the second part of the experiment, they would be given related materials to understand every hellish gag.

Ethics statement: There will be a statement during the experiment that the hellish gags in this experiment are for research purposes only and in no way represent any view of this paper. Subjects will be given informed consent that they will read sensitive material about racism, the crucifixion of

Christ, and the 9.11 terrorist attacks. At the end of the second part of the experiment, the design mechanism and reason for the single-blind experiment will be disclosed to the subjects.

### 3. Result

Before starting data analysis, it is necessary to establish a model representing the mediating effect of the relationship between these three variables, as shown in Figure 1.

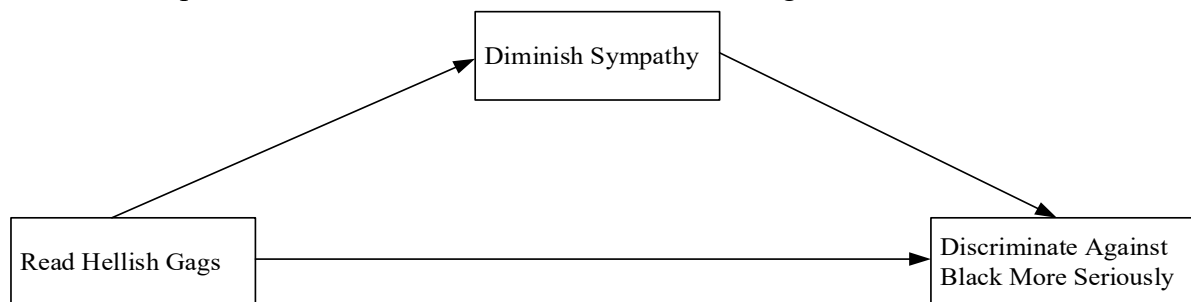


Figure1. Intermediary model in this study

Overall, the analysis results show that reading hellish gags has a significant effect on the weakening of empathy ( $B=1.590$ ,  $SE=0.733$ ,  $t=2.168$ ,  $p=0.035$ ), while the diminished sympathy also has a significant effect on the degree of black discrimination ( $B=0.129$ ,  $SE=0.011$ ,  $t=11.813$ ,  $p=0.000$ ), and reading hellish gags has a significant effect on the degree of black discrimination as well ( $B=0.288$ ,  $SE=0.110$ ,  $t=2.611$ ,  $p=0.012$ ). It was determined that diminished empathy fully mediated the relationship between reading hellish gags and increased discrimination against blacks, with the mediating effect accounting for 100% of the total effect.

More specifically, it is wise to focus on variable X to variable M first. The formula of the model is:  $M=64.067 + 1.590 X$  ( $SE=0.733$ ,  $t=2.168$ ,  $p=0.035$ ). F-test of the model found that the model passed the F-test ( $F=4.700$ ,  $P = 0.035 < 0.05$ ), which means that X must have an impact on M. In the first stage, all the subjects completed the M measurement without any intervention of other variables, and the average scores were 59.21, 60.46, and 61.47 respectively, without significant difference in statistics. However, in the second stage, after they read several hellish gags, significant differences occurred in their average scores, which were 63.57, 69.67, and 73.19, respectively. The increase in average scores meant that participants found the situations presented on measure M more amusing (like a child dropping a vase from a building and killing his grandfather), and they were more likely to treat other people's tragic experiences as a joke and less serious about them.

Another thing to note is that when measuring M, several questions about blacks and Kobe Bryant show significant changes in ratings.

Table 1. Some data of questions about blacks and Kobe

Question	G1 Average	G2 Average	Difference	P value
A 46-year-old black man was held to the ground by a police officer with his knee around his neck, Shouting, "I can't breathe!	60.44	71.95	11.51	<0.001
A policeman in the United States leaked photos of Kobe Bryant's crash and mocked his body as blackened like hamburger meat.	77.69	84.95	7.26	<0.05
A black teacher was walking on the road, while some teenagers shouted "Negga" to him.	76.44	83.26	6.82	<0.05

The change was probably because the second group was asked to read hellish gags about Kobe and blackism while the first group read about other topics. Regarding question 11, although this question also involves Kobe Bryant, the people involved in the plane crash were all Chinese. This may have resulted in many subjects having difficulty appreciating the humor of this hellish gag, giving shallow scores so that it will be further analyzed in the discussion.

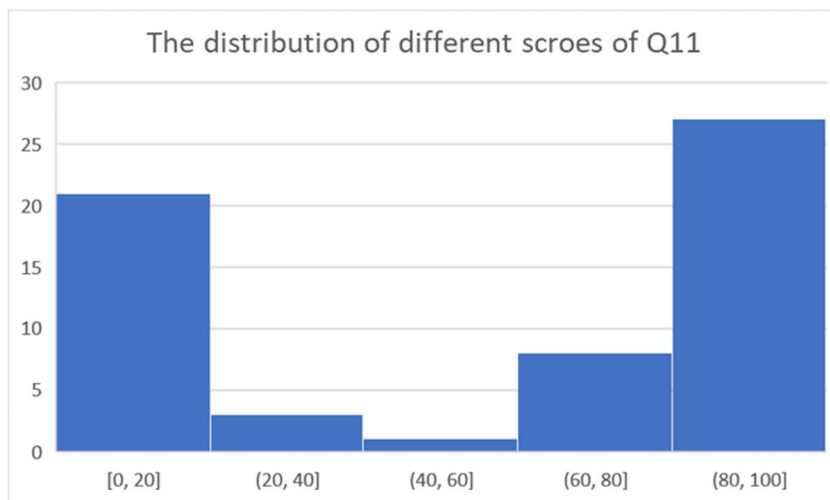


Figure2. The distribution of different scores of Q11

The step after this is to concentrate on variable M to variable Y. The formula of the model is:  $Y = -4.570 + 0.133 M$  (SE=0.011,  $t=12.641$ ,  $p=0.000$ ). It was found that the model passed F-test ( $F=159.793$ ,  $P=0.000 < 0.05$ ), which indicates that M must have an impact on Y.

In the last step of illustrating the model of mediating effect test, variable X to variable Y should be mentioned. One of the exciting results is that the marginal change in the number of discrimination questions they chose in the DIT was very different when the number of black discrimination jokes in the material they were asked to read was 0, 3, and 6. The average score given by G1 was 4.55, while that of G2 was 4.8, and G3 was 5.95. Having read a few hellish gags about black discrimination, increasing the number would have a more significant effect. Another important conclusion is that when designing questions, the study predicted that subjects who tend to discriminate against blacks would choose two main questions in their moral judgments: direct criticism of blacks and advocacy of whites. In the data analysis, it can be found that the probability of the subjects choosing the questions directly criticizing the black was much higher. These frequently chosen questions were Q4 in case one, Q6 and Q12 in case two, and Q6 in case three. This can even show their more obvious discrimination against black people: when choosing the questions that are more favorable to white people, they did not even choose the questions that support white people to hide their racism but directly chose the questions that criticize black people, as shown clearly in figure3 and figure4. Figure3. Number of different questions chosen by G2

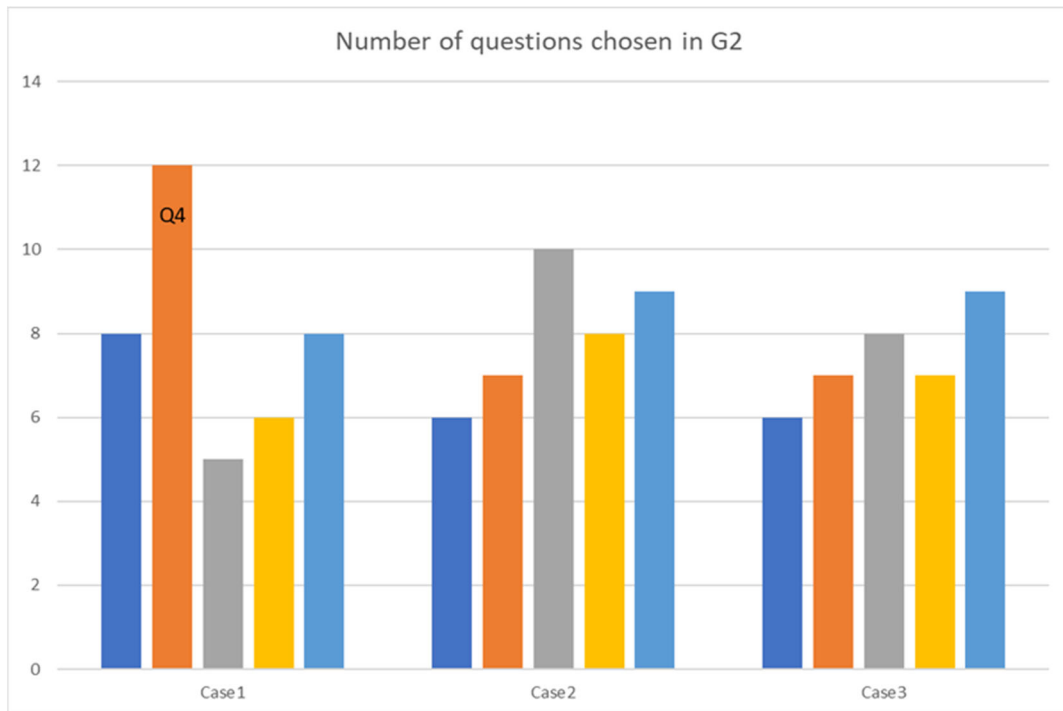


Figure3. Number of different questions chosen by G2

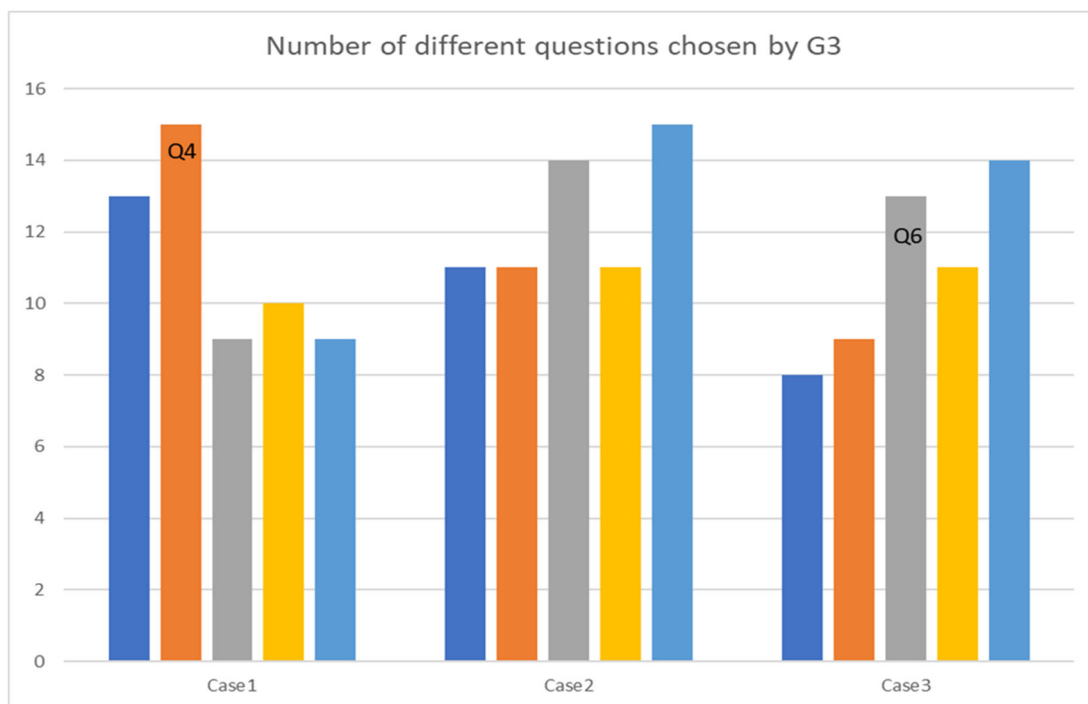


Figure4. Number of different questions chosen by G3

#### 4. Discussion

To begin with, it is worth discovering why the mediating model in the ‘Result’ shows that mediating effect accounts for 100% of the total effect, which indicates that reading hellish gags could not directly lead to more severe discrimination against black. This is probably explained by the fact that the subjects did not complete the questionnaire immediately after reading the material but procrastinated for several hours. A study of political jokes showed that the influence of reading harmful political jokes, which resulted in subjects changing their attitudes toward politicians, tends

to be a temporary change but not a permanent change [17]. Therefore, subjects' attitudes towards blacks may also be affected by the time interval between reading materials and completing the questionnaire because when implementing the experiment, materials and questionnaires were sent to subjects through social platforms. The completion time was set, but there was no requirement to finish the questionnaires immediately after they finished reading the materials.

However, on the other hand, it is also possible that the sample size is too small, resulting in no significant results for variable X versus variable Y. In this case, there is no substantial distinction between complete and partial mediation since full mediation is likely to become partial mediation as the sample size expands [18]. This study only selected a small sample size for 20 subjects per group, which was likely to disturb the result. In addition, complete mediation does not mean that the intermediary variable is unique, and there may be other mediation variables. From this perspective, it is more appropriate to interpret a complete mediation as a "major mediation." Therefore, Preacher and Hayes raise their opinion of abandoning the concept of complete mediation and considering all mediating effects as partial mediations [19]. Simply put, the primary model of this study should be described as follows: the independent variable X affects the dependent variable Y mainly through the mediating variable M.

For X to M, previous research has shown that reading related disparagement jokes can lead to less empathy for the subject of the joke. A study of disparagement jokes about women showed that subjects scored significantly lower on a compassion scale after reading those jokes [20]. This may explain why the subjects' empathy decreased after reading the hellish gags, particularly pronounced for black people and Kobe. However, other studies have shown that reading hellish gags significantly affects people who are already prejudiced [21]. To explain this result, Ford and Ferguson put forward the Prejudice Norm Theory of disparagement humor, believing that disparagement humor creates a social norm that permits the expression of prejudice, which does not fundamentally change the attitudes of the subjects but acts as a release of prejudice [22]. The normalization of prejudice can be divided into three steps: (1) cues such as expression, laughter, tone of voice in specific situations, or humorous information in the conversation are perceived by the receiver; (2) Humorous cues and information become an important information in communication, which activates a non-serious way of thinking and relaxes the social norms that should initially be followed in communication; (3) The recipient of disparagement humor no longer needs to suppress prejudice in the relaxed norm, but if the recipient has no prejudice, they will not be affected. It seems likely that the reason for the statistically significant difference in how funny the situations were before and after was that they were already with prejudice, causing them to be more stimulated by reading hellish gags than those who have no prejudice against other people. This study did not investigate the subjects' reading of hellish gags before the experiment and only made random grouping, which might lead to the result that some people who often read hellish gags were being divided into the same group, and this caused a significant impact on the results.

In this part, the worth-noticing problem is that the subjects gave some extreme scores in a situation involving both Bryant and the subjects' compatriots. As can be seen from Figure 2 in the results section, those who rated 0-20 and 80-100 to the degree of interest of "according to the survey, 133 fans of Kobe Bryant were on board the crashed Eastern Airlines, and this was their last tribute to Kobe Bryant" accounted for the significant part of the sample size. Those who scored high were because they remembered in the material that a helicopter crash killed Kobe, and they considered this situation extremely funny. So, it's important to note here why, after reading the same material, many subjects still gave shallow scores to express their aversion to having fun with this situation (the probability of giving 0 to Q11 was 0.183, while the second highest probability of giving 0 to a specific question was 0.067). Probably, the effect of disparagement humor is related to the group identity of the humor recipient; for instance, non-Jews were more likely to laugh at disparagement jokes about Jews [23], and members of the Democratic Party were more likely to laugh at jokes about Republicans than about Democrats [24]. But a simple distinction between belonging and not belonging to a certain group doesn't explain everything: lower-class African-Americans, for example, don't find

disparagement jokes about African-Americans funny, while middle-class African-Americans show the same appreciation for such jokes as whites do [25].

A more convincing explanation, then, is that whether or not listeners appreciate disparagement humor depends mainly on their emotional attitude toward a particular group. Disparagement humor works well when the audience holds a positive attitude toward the person telling the joke or a negative attitude toward the group being laughed at [26].

Finally, regarding the direct effect of X on Y, previous studies have also shown that disparagement humor can trigger prejudice against the group being derogated. For example, after subjects were forced to retell disparagement jokes about lawyers, they had a more negative attitude toward the lawyer group than the experiment group, who had the entitlement to choose to retell or not [27]. Similar studies have found that reading nationality jokes will increase the stereotypes participants reported about people in that country [28]. One way to explain this result is the cognitive dissonance theory; that is, if there is a dissonance between the disparagement jokes repeated by an individual and the inner attitude, the individual can change the inner attitude to relieve the psychological tension caused by this dissonance. The result is the deepening of the identification of prejudice [27]. However, this theory can't explain the experiment with disparagement jokes about women because even if subjects weren't forced to retell disparagement jokes about women, they would have reinforced the dismissive and objectification of women simply by reading those jokes [20]. From this aspect, Prejudice Norm Theory seems to explain this contradiction better.

Nevertheless, other factors could affect this result. The questions in the DIT are strictly related to the six stages of Kohlberg's theory of moral development. The scores are given according to the number of subjects' choice of questions for the highest two stages [29]. In the design of the DIT questions provided to the subjects, more attention was paid to whether the question was about supporting whites or discriminating against blacks, without much consideration of the theory of the six stages of moral development. This was likely to lead subjects to choose questions corresponding to their stage of moral development, reducing the difference between supporting whites and discriminating against blacks implied in the question.

## 5. Conclusion

Through the analysis of the above experimental results, some conclusions can be drawn: First, reading hellish gags leads to a marked reduction in empathy. Second, reading hellish gags can lead to further discrimination against the groups involved in hellish gags, mainly by undermining empathy, with people who are already prejudged being more affected after reading hellish gags. Third, when the hellish gags involve compatriots of subjects, the subjects are more likely to feel offended than to appreciate the humor of the jokes. In addition to the above, this study can also extend some meaningful questions: Since the spread of hellish gags on the Internet can negatively impact the people who are discriminated against, could a machine learning system be developed to automatically screen and delete these jokes? Or, for these negative emotions expressed in hellish gags, just having hellish gags blindly prohibited may cause a violent outbreak, but if they are left alone will also cause various effects on the discriminated groups, then what is the appropriate attitude towards these jokes? In addition, in a severe social event, if the disparagement humor about this event is widely spread (for example, a male star is suspected of sexual assault, and the hot topic of public discussion is jokes about his sexual ability), will the non-seriousness of humor at this time weaken people's awareness and reflection on the event itself? These questions are waiting for further study and analysis in the future.

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