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The Impact of Different Roles on the Moral Judgment of AI Painting Plagiarism: The Mediating Role of Moral Disengagement

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Abstract

Purpose: This study aims to explore the impact of different roles (actor, victim, and evaluator) on the moral judgment of AI painting plagiarism scenarios, and to test the mediating role of moral disengagement. **Method**: A randomized controlled experiment was used. The subjects, a total of 153 participants, were randomly divided into three groups according to their roles. After assuming their roles, the subjects were asked to judge the immorality of the moral story and the plagiarized picture, and the level of moral disengagement was measured using a moral disengagement questionnaire. **Results**: 1) The moral judgments of roles are significantly negatively correlated with moral disengagement and its four sub-dimensions. 2) There are significant differences in the level of moral judgment between different roles, and the moral judgment of the actor is significantly lower than that of the victim and evaluator. 3) Moral disengagement plays a mediating role in the impact of roles on moral judgment. **Conclusion**: 1) Roles affect the moral judgment of individuals on AI painting plagiarism. 2) Roles not only directly affect moral judgment, but also indirectly affect moral judgment by affecting the level of moral disengagement.

Keywords

AI Painting, Moral Judgment, Moral Disengagement, Roles

1. Introduction

The development of technology has promoted the widespread application of AI in various fields, including the field of painting. AI painting can generate con-

tent with artistic forms by learning from datasets. AI painting can generate content with artistic forms by learning from datasets. In contrast, original authors are human painters who have learned painting skills for a long time and rely on their own painting abilities to create pictures. As a product of AI-Generated Content (AIGC), AI painting attracts many young people with its fast and interesting experience, which leads them to display AI-created pictures on social media platforms (Li, 2023). However, AI painting also carries the risk of copyright infringement, which has drawn people's attention to the issue of infringement by AI-generated objects (Jia, 2023). Some abuse AI to plagiarize the works of others (Zhang, 2022); those works are highly similar to the original in terms of style, composition, etc. These types of AI usage deviate from the purpose of AI technology (Liu, 2022). Hence, there is a disagreement between AI painting users and original illustrators on copyright and morality: the former denies plagiarism, while the latter advocates for rights protection. The customers purchasing this type of AI technology are concerned with the commercial value and legal risks of AI painting. This is a phenomenon of roles in the moral judgment of AI plagiarism behavior. Improving the moral level of users and companies and avoiding the abuse of AI painting technology is the key to solving the problem of AI plagiarism. Therefore, analyzing the factors that influence the moral judgment of roles is crucial for preventing the abuse of AI painting technology and protecting the rights and interests of original authors.

Moral judgment can be defined as people's evaluation of the right and wrong, good and bad nature of human behaviors based on social standards (Cohen & Ahn, 2016). Moral judgment can be divided into two types: judgment of behavior and judgment of the actor. The judgment of behavior involves two ethical orientations: consequentialism and deontology (Cao, 2018). Consequentialism believes that the morality of behavior depends on the maximization of its results (Smart & Williams, 1973), while deontology believes that the morality of behavior depends on whether it complies with moral rules and obligations. Roles (such as evaluators or actors) may have different preferences and influences on moral judgment. Research has found that in negative situations, evaluators tend to give more severe punishments than do the actors; while in positive situations, actors tend to choose more rewards than would the evaluators (Whitson et al., 2015). AI painting users as actors may value the convenience and value brought by AI painting from a consequentialist perspective (De Freitas et al., 2019), and emphasize that they did not directly plagiarize someone's subjective intention (Ames & Fiske, 2013), while original illustrators as victims may believe, from a deontological perspective, that AI painting infringes upon their copyright and will, and is immoral. Customer as an evaluator may seek a balance between consequentialism and deontology. The issue of AI painting plagiarism has triggered differences in moral judgment among roles. These moral judgments may be influenced by ethical orientation and psychological factors. However, there is currently a lack of empirical research to explore the influencing factors and their

mechanisms of action. Existing theories cannot provide effective guidance and suggestions, highlighting the importance to further analyze the mechanism of the influence of roles on the moral judgment of AI painting plagiarism behavior.

Moral disengagement can be illustrated as a cognitive tendency developed by individuals that allows them to redefine behavior, reduce their sense of responsibility, and decrease their sympathy for the victims (Bandura, 1986a). Based on this theory, Moore believes that moral disengagement is an individual's self-cognitive tendency to avoid punishments, which may lead to more immoral decisions or behaviors (Moore, 2008). Detert's research found that people with higher levels of moral disengagement tend to make more immoral decisions (Detert, Trevino, & Sweitzer, 2008). Social cognitive theory believes that an individual's cognition and behavior influence each other (Bandura, 1986b), and moral disengagement can also be elevated by the feedback of behavior. In the context of AI painting plagiarism, the moral disengagement of roles may be influenced by factors such as their own interests, the degree of harm, and the degree of rationalization, which in turn affects their moral judgment of AI painting plagiarism behavior. The victim will morally condemn the immoral behavior of the infringer, and the infringer may tend to use the strategy of moral disengagement to alleviate their sense of responsibility and guilt, or to find justifiable reasons for their immoral behavior (Yu & Xu, 2019). Moral disengagement may play an important role in the moral judgment of AI painting plagiarism behavior by roles, but its specific mechanism of action is not clear. Therefore, it is very important to explore the role of moral disengagement in this relationship.

This study aims to explore the differences in moral judgment of roles triggered by the issue of AI painting plagiarism and its influencing factors, especially the mechanism of moral disengagement.

The study proposes the following hypotheses:

1) Individuals of different roles have different moral judgments in the situation of AI painting plagiarism, and the moral judgment level of AI painting plagiarizers is lower.

2) Moral disengagement plays a mediating role in the relationship between roles and moral judgment.

2. Research Methods

2.1. Research Subjects

The sample size for this experiment is calculated to be 153 people using Gpower 3.1.9.7, with a significance level of 0.05, a regression coefficient of 0.3, and a statistical power of 0.8. Non-art-painting-majors college students of 18 - 24 years old with a balanced gender ratio are selected as subjects. They have no previous experience with AI painting. They all have normal vision. A certain reward is given after the experiment is completed.

2.2. Research Design

This study adopts a multi-factor mixed random control experimental design, with roles (between-group variables) as independent variable, and moral judgment and moral disengagement as the dependent variables. There are two sub-experiments in this experiment, the moral story experiment and the picture judgment experiment. The purpose of the two sub-experiments is to explore the impact of roles on moral judgment, but the presentation of materials is different.

2.3. Research Tools and Materials

1) AI painting plagiarism moral story: The subjects would first read a short story containing immoral AI painting plagiarism, and then judge the immorality of the plagiarist's behavior. This study compiled a story scenario of AI painting plagiarism, which involves three roles, namely, the actor (the programmer who uses the AI painting tool to plagiarize), the victim (the original painter who is plagiarized by the AI painting tool), and the evaluator (the novelist who buys or watches AI painting works). In order to manipulate the identity of roles, this study randomly assigned subjects to one of the three roles before the experiment began and gave them corresponding instructions; for example, if the subject plays the role of the actor, the instruction would be: "You are a programmer who creates pictures using AI painting tools and publishes or sells them. Please make your moral judgment on each pair of original works and plagiarized works from your own perspective, and answer related questions."

2) AI painting plagiarism material pictures: this study designed a set of experimental materials, including 10 original works and 10 AI-generated plagiarized works. The original works were selected from well-known illustrators on the Internet, with different themes and styles. The plagiarized works were generated using a deep learning-based AI painting tool, which can output pictures related to text or picture input, and can imitate various painting styles, such as oil painting, watercolor, comics, and more. The plagiarized works were highly similar to the original works, but contained certain differences. This study paired each original work with its plagiarized counterpart to form 10 pairs of comparison materials. In order to ensure the fairness and effectiveness of the experiment, this study uniformly processed all original works and plagiarized works, including cropping, compression, watermark removal, and other techniques. In addition, to exclude the impact of picture content on moral judgment, this study conducted an emotional valence evaluation on the pictures before use, ensuring that there is no significant difference in the emotional valence of all pictures, preventing the impact of emotional extraneous variables.

3) Moral disengagement questionnaire: Yang et al. (2010) further revised the moral disengagement questionnaire scale compiled by Bandura and others; the revised questionnaire includes 8 dimensions and 32 items, with a total reliability of 0.87.

4) Positive and Negative Affect Scale (PANAS): This scale was developed by Watson and Clark in 1988. This study used the Chinese version of the Positive

and Negative Affect Scale revised by Huang et al. (2003). The scale consists of 20 words, 10 positive words and 10 negative words. Positive words were scored positively, the higher the value, the more positive the current emotion. Negative words were scored inversely, the higher the value, the more negative the current emotion. Finally, the total scores of positive and negative words were calculated separately. This data was used to evaluate experimental materials and control emotional extraneous variables. The Chinese version of the Positive and Negative Affect Scale has a Gonhach's α reliability coefficient of 0.85 and 0.83, respectively.

5) Self-compiled online experiment test program: the content includes subject screening questions, demographic questions, moral judgment experiments, picture judgment experiments, and moral disengagement questionnaires.

2.4. Research Process

2.4.1. Evaluation of Experimental Materials

In order to ensure the control of extraneous variables and the effectiveness of the experiment, this study evaluated all the materials used in the research.

1) Self-compiled AI painting plagiarism moral story

The study found 30 volunteers to read the story and evaluate the content and questions of the story. The evaluation content includes: whether the language description is clear, whether the story plot is specific, and whether there are parts of the story that are difficult to understand or vague.

2) AI painting plagiarism material pictures

The study found 30 volunteers to evaluate the emotional valence and arousal of the pictures used in the experiment, using the "Positive and Negative Emotion Scale", to ensure that there is no significant difference in the emotional valence and arousal of each group of pictures. The quality of the pictures was reviewed to ensure that the pictures are consistent in terms of pixels, etc. The content of the pictures was reviewed to ensure that the content of the pictures would not contain content related to people's moral judgment.

2.4.2. Pre-Experiment

The pre-experiment would select about 30 subjects to be randomly divided into three groups according to their roles and complete the online experiment client of the Credamo platform. The overall experimental flowchart is shown in **Figure 1**.

1) Instruction

This is a moral judgment experiment on AI painting plagiarism. You will play one of the roles in the following story and make evaluations on the behavior of the people in the story. Please read this story carefully and answer related questions from the perspective of the role you are playing.

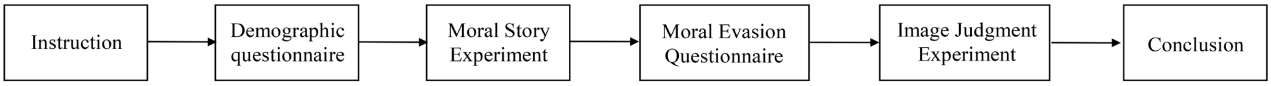

Figure 1. Overall experimental flow chart.

2) Fill in the demographic questionnaire

The questionnaire content includes: gender, age, major, whether AI painting has been used, whether studying or engaged in art-related majors and work.

3) Conduct a moral story experiment (Figure 2)

Instruction: Please put yourself in your role, read the following story carefully. After reading, press any key to continue to answer the question.

Story (taking the story of the actor as an example): You are a programmer who is good at using AI painting. You saw a custom illustration order submitted by user Xiao Wang on the part-time job website as the cover of his best-selling book. After some simple communication, you found that Xiao Wang wanted to buy the work of the original painter Xiao Li, but due to the high cost (3000 yuan), he chose to place an order with you who use AI painting but at a more affordable price. You use web search to view the works published by Xiao Li and found that you can easily meet Xiao Wang's painting requirements by imitating Xiao Li's works. So you downloaded Xiao Li's painting works without Xiao Li's authorization and put his works into the AI drawing software for secondary processing, and quickly generated two pictures that met the requirements and submitted them to Xiao Wang, and Xiao Wang paid you a reward of 500 yuan.

Question: "Do you think your behavior is immoral?", Scored on a 9-point scale (1 represents definitely not, 5 represents: neutral, 9 represents definitely yes) The larger the number, the more serious the degree of immorality.

4) Conduct a picture judgment experiment Instruction (Figure 3)

You are a programmer who is good at using AI painting. Please carefully compare the ten groups of pictures that will be presented. The left side is the work of the original painter, and the right side is the work generated by AI painting. Please rate whether the generation and sale of the picture on the right constitutes an immoral act of plagiarizing others, scored on a 9-point scale (1 represents definitely not, 5 represents: neutral, 9 represents definitely yes) The larger the number, the more serious the degree of immorality.

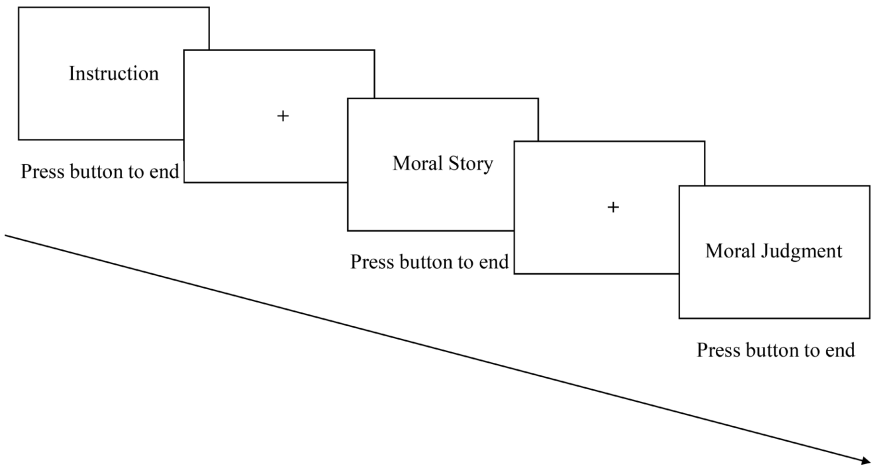

Figure 2. Moral story experimental process.

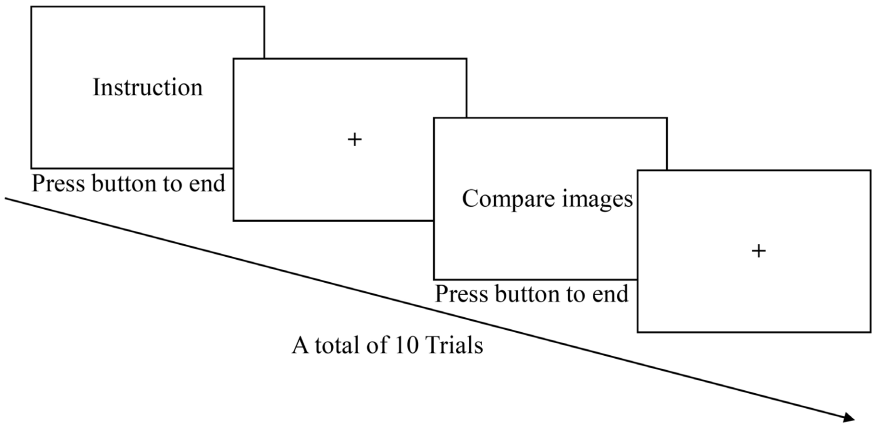

Figure 3. Image judgment experiment process.

5) Fill in the moral disengagement questionnaire
6) Ending language

2.4.3. Formal Experiment

The process of the formal experiment is the same as that of the pre-experiment, modifying the possible problems in the pre-experiment, as well as removing some of the invalid data according to the subject screening criteria.

2.5. Statistical Analysis

This study uses SPSS 22.0 to perform variance analysis, chi-square test, descriptive analysis, correlation analysis, etc., and uses the Process program to perform mediation tests.

3. Research Results

3.1. Demographic Variable Difference

The Different Roles A difference test was conducted on the age and gender ratio of roles. The results showed that there was no significant difference in age and gender ratio among the three roles, as shown in Table 1.

3.2. Differences in Moral Judgment and Moral Disengagement under Different Roles

3.2.1. Difference Test of Moral Judgment under Different Roles

A variance analysis was conducted on the level of moral judgment under different roles. The difference test results showed that there were significant differences in the level of moral judgment between roles ($F(2, 150) = 17.511$, $p < 0.001$, Biased eta square = 0.19; $F(2, 150) = 36.690$, $p < 0.001$, Biased eta square = 0.33). Post-hoc tests showed that the moral judgment of the actor's story is significantly lower than that of the victim ($p < 0.001$) and the evaluator ($p < 0.01$); the moral judgment of the victim's picture is significantly higher than that of the evaluator ($p < 0.001$) and the actor ($p < 0.001$), and the actor is significantly lower than the evaluator ($p < 0.001$) (Table 2).

Table 1. Differences in demographic variables among different roles ($M \pm SD$).

Demographic indicators		Statistical value	Age	Gender	
				Male	Female
Group	Victim group		21.45 ± 1.51	19	32
	Evaluation group		21.82 ± 1.91	26	25
	Behavior group		21.84 ± 1.55	21	30
		F	0.896		
		χ^2		2.078	
		p	>0.05	>0.05	

*$p < 0.05$, **$p < 0.01$, ***$p < 0.001$.

Table 2. Test for differences in moral judgment under different roles ($M \pm SD$).

		Statistical value	Moral judgment of the story	Moral judgment of images
group	Victim group		8.08 ± 0.77	7.71 ± 0.71
	Evaluation group		7.43 ± 2.09	6.78 ± 1.32
	Actor group		6.00 ± 2.22	5.57 ± 1.59
		F	17.511***	36.690***
		p	<0.001	<0.001

*$p < 0.05$, **$p < 0.01$, ***$p < 0.001$.

3.2.2. Difference Test of Moral Disengagement Level under Different Roles

A variance analysis was conducted on the level of moral disengagement under different roles. The difference test results showed that there were significant differences in moral disengagement and its four dimensions of advantageous comparison, responsibility shift, responsibility dispersion, and responsibility attribution among the roles ($F(2, 150) = 14.440$ $p < 0.001$, Biased eta square = 0.16; $F(2, 150) = 19.056$, $p < 0.001$, Biased eta square = 0.20; $F(2, 150) = 9.596$, $p < 0.001$, Biased eta square = 0.11; $F(2, 150) = 25.283$, $p < 0.001$, Biased eta square = 0.25; $F(2, 150) = 16.748$ $p < 0.001$, Biased eta square = 0.18). Further post-hoc tests showed that the moral disengagement and its four dimensions of advantageous comparison, responsibility shift, responsibility dispersion, and responsibility attribution of the actor were all significantly higher than those of the victim ($p < 0.001$) and the evaluator ($p < 0.001$). Among the eight sub-dimensions of moral disengagement, advantageous comparison, responsibility dispersion, and responsibility attribution were related to moral judgment. This indicates that the mediating role of moral disengagement in the influence of roles on moral judgment in the experiment may be due to the role of these four moral disengagement strategies. For details, see **Table 3**.

Table 3. Differences in moral reasoning under different roles ($M \pm SD$).

		Statistical value	Moral disengagement	Moral justification	Euphemistic label	Favorable comparison	Transfer of responsibility	Diffusion of Responsibility	Twisted results	Dehumanized	Attribution of responsibility
group	Victim		68.86 ± 12.11	7.20 ± 1.91	8.04 ± 1.99	8.96 ± 2.25	11.39 ± 2.63	7.86 ± 2.00	9.82 ± 2.61	9.39 ± 2.31	6.20 ± 1.55
	Evaluation		65.86 ± 14.29	7.00 ± 1.74	7.98 ± 2.17	8.63 ± 2.66	10.86 ± 3.17	7.43 ± 2.13	8.84 ± 2.72	8.75 ± 3.40	6.37 ± 1.60
	Actor		81.04 ± 18.26	7.10 ± 1.60	8.51 ± 2.36	12.31 ± 4.61	13.41 ± 3.45	11.39 ± 4.48	9.41 ± 2.78	9.24 ± 2.53	9.39 ± 4.95
		F	14.440***	0.159	0.905	19.056***	9.596***	25.283***	1.694	0.998	16.748***
		p	<0.001	>0.05	>0.05	<0.001	<0.001	<0.001	>0.05	>0.05	<0.001

*$p < 0.05$, **$p < 0.01$, ***$p < 0.001$.

3.3. Correlation Analysis

The study used Pearson correlation to analyze moral judgment, moral disengagement and its eight dimensions. The results are shown in Table 4. The story moral judgment was significantly negatively correlated with moral disengagement, advantageous comparison, responsibility dispersion, and responsibility attribution (t = −0.18 - −0.30, $p < 0.05$); the picture moral judgment was significantly negatively correlated with moral disengagement, advantageous comparison, responsibility shift, responsibility dispersion, and responsibility attribution (t = −0.42 - −0.57, $p < 0.001$). The eight dimensions of moral disengagement were positively correlated with each other and positively correlated with the total score. Among them, advantageous comparison, responsibility dispersion, and responsibility attribution contributed more to the relationship between moral disengagement and moral judgment, and the moral attribution strategy of the subjects in the experiment may be related to these three sub-dimensions.

3.4. The Mediating Role of Moral Disengagement

In order to further clarify the psychological mechanism of roles affecting moral judgment, the Model 4 of the SPSS macro compiled by Hayes was used to investigate the mediating effect of moral disengagement in the relationship between roles and moral judgment. In the mediation effect analysis model of this study, roles (victims, evaluators, actors) were coded as dummy variables, the mediating variable moral disengagement and the dependent variable moral judgment were continuous variables, and after controlling for demographic variables such as age and gender, the analysis results of the mediation effect test were shown in Table 5.

Table 4. Descriptive statistics and correlation analysis.

	M ± SD	1	2	3	4	5	6	7	8	9	10	11
1) Moral judgment of the story	7.17 ± 2.00	1										
2) Moral judgment of images	6.69 ± 1.53	0.450***	1									
3) Moral justification	7.10 ± 1.75	−0.048	−0.013	1								
4) Euphemistic label	8.18 ± 2.18	0.007	−0.038	0.546***	1							
5) Favorable comparison	9.97 ± 3.71	−0.298***	−0.534***	0.264**	0.370***	1						
6) Transfer of responsibility	11.89 ± 3.27	−0.316	−0.332***	0.320***	0.401***	0.667***	1					
7) Diffusion of Responsibility	8.90 ± 3.55	−0.300***	−0.567***	0.254**	0.396***	0.826***	0.655***	1				
8) Twisted results	9.36 ± 2.71	0.109	0.073	0.230**	0.379***	0.240**	0.394***	0.171*	1			
9) Dehumanized	9.12 ± 2.41	0.087	0.002	0.380***	0.456***	0.333***	0.357***	0.270**	0.628***	1		
10) Attribution of responsibility	7.32 ± 3.44	−0.223**	−0.454***	0.224**	0.211**	0.668***	0.572***	0.716***	0.073	0.095	1	
11) Moral disengagement	71.92 ± 16.39	−0.181*	−0.416***	0.500***	0.614***	0.856***	0.829***	0.850***	0.492***	0.578***	0.677***	1

*$p < 0.05$, **$p < 0.01$, ***$p < 0.001$.

Table 5. Test results of the mediating effect of moral disengagement on moral judgment.

Mediation Path	Estimated value	95%CI	
		Low	High
Taking the victim group as a reference:			
Evaluation group → Moral evasion → Story moral judgment	0.122[a]	0.013	0.112
Evaluation Group → Story Moral Judgment	−0.659	−1.374	0.056

Continued

Behavior group → Moral evasion → Story moral judgment	−0.048	−0.325	0.296
Behavior Group → Story Moral Judgment	−2.030	−2.781	−1.280
Evaluation group → Moral reasoning → Image moral judgment	0.177[a]	0.060	0.230
Evaluation group → Image moral judgment	−1.000	−1.474	−0.527
Behavioral parties → Moral evasion → Image moral judgment	−0.312[a]	−0.583	−0.089
Behavioral party → Image moral judgment	−1.823	−2.321	−1.326

[a]indicates a significant mediating effect.

As can be seen from Table 5, when the victim is used as a reference, the mediating effect value of the evaluator on the moral judgment of the story through moral disengagement was 0.122, and the 95% Bootstrap confidence interval was [0.013, 0.112], not including 0, indicating that the mediating effect was significant; after adding the mediating variable moral disengagement, the direct effect of the evaluator on the moral judgment of the story was −0.659, and the 95% Bootstrap confidence interval was [−1.374, 0.056], including 0, indicating that the direct effect was not significant, so moral disengagement played a complete mediating role in the relationship between the evaluator and the moral judgment of the story. The mediating effect value of the actor on the moral judgment of the story through moral disengagement was −0.048, and the 95% Bootstrap confidence interval was [−0.325, 0.296], including 0, indicating that the mediating effect is not significant.

The mediating effect value of the evaluator on the moral judgment of the picture through moral disengagement was 0.177, and the 95% Bootstrap confidence interval was [−1.474, 0.230], not including 0, indicating that the mediating effect was significant; after adding the mediating variable moral disengagement, the direct effect of the evaluator on the moral judgment of the picture was −1.000, and the 95% Bootstrap confidence interval was [−1.374, −0.527], not including 0, indicating that the direct effect was significant; hence so moral disengagement played a partial mediating role in the relationship between the evaluator and the moral judgment of the picture. The mediating effect value of the actor on the moral judgment of the story through moral disengagement was −0.312, and the 95% Bootstrap confidence interval was [−0.583, −0.089], not including "0", indicating that the mediating effect was significant; after adding the mediating variable moral disengagement, the direct effect of the actor on the moral judgment of the picture was −1.823, and the 95% Bootstrap confidence interval was [−2.321, −1.326], not including 0, indicating that the direct effect was significant, so moral disengagement played a partial mediating role in the relationship between the actor and the moral judgment of the picture.

4. Discussion

4.1. The Influence of Different Roles on Moral Judgment

This study found that there were significant differences in the level of moral

judgment among roles when facing the situation of AI painting plagiarism. Specifically, there was no significant difference in the level of moral judgment between the evaluator and the victim, but they were both significantly higher than the actor, which was consistent with the expected results of this study. This result can be explained from the definition, function, and triggering conditions of moral judgment.

Moral judgment is an individual's evaluation and judgment of the good and evil, good and bad, and personal right and wrong of a certain event or behavior (Cohen & Ahn, 2016), and its core function is to promote and maintain group cooperation (Nucci & Turiel, 1993). When there are three components of violation of norms—negative impact, and binary harm—moral judgment will appear (Gray, Waytz, & Young, 2012). In this study, AI painting plagiarism was a particular scenario that triggers moral judgment. The experimental material AI painting plagiarism behavior not only violated the intellectual property rights of the original author, but also harmed the interests and reputation of the original author, while disrupting the fair competition and innovative development in the art field. The moral story sub-experiment used the programmer Xiao Zhang who uses AI painting. His behavior of downloading and using AI painting software to imitate Xiao Li's painting works without authorization and selling the imitated works for profit is an immoral behavior of plagiarism. This story would trigger the subject's moral judgment. The evaluator and the victim in the story have no immoral behavior, so the evaluator and the victim feel that the behavior of the actor clearly violates the rules and binary harm (Haidt & Graham, 2007), and the degree of immorality of this behavior was higher. The actor in the story, as the person who uses AI painting to plagiarize, does not clearly violate the rules in this role perspective (the story uses the word "imitation" for plagiarism behavior, but combined with the essence of the behavior of the actor in the story, it belongs to plagiarism), and there is no obvious negative impact and binary harm, so it may value the convenience and value brought by AI painting from a consequentialist perspective (De Freitas et al., 2019) and ignore its works and the original works in style, composition, etc. In this way, this role prompted a lower level of moral judgment among the experiments. In the picture judgment sub-experiment, the differences in levels of moral judgment proved to be significant.

In this study, the level of moral judgment of roles for AI painting plagiarism behavior is reflected in two dependent variable indicators (moral story and picture judgment), indicating that the experimental paradigm used in this experiment can effectively trigger the sense of identity of roles and further affect its moral judgement level, which lays a solid foundation for subsequent empirical research on moral judgment of AI painting plagiarism. At the same time, this study reveals the differences in the level of moral judgment of roles when facing the same situation of AI painting plagiarism, which helps to explain the reasons for the contradictions and conflicts between original painters and AI painting

users in real life. We attempt to explain the findings of this study from a realistic perspective. Original painters are more likely to become victims or evaluators in real life. They have a higher level of artistic literacy and copyright awareness, and hold a higher moral standard for whether AI painting is plagiarism. On the other hand, AI painting users in reality may pay more attention to the accessibility and convenience of AI painting, and tend to ignore or downplay the copyright issues. They have a lower moral judgment. This difference in moral judgment leads to different moral positions of different groups when facing AI painting, which in turn causes controversy. Hence, roles within this issue lead to different moral positions of different groups when facing AI painting, which in turn triggers controversy. If one wants to avoid this controversy, from the perspective of the actor, one first needs to avoid infringement problems caused by deliberate imitation, realize that the abuse of AI painting is plagiarism of others (Zhang, 2022), and deviate from the purpose of AI technology (Liu, 2022) Immoral behavior. From the perspective of the victim and the evaluator, it is necessary to judge the essence of the behavior of AI painting users, not presetting the other party as the perpetrator simply for using AI painting software. Only when roles reach a consensus on the moral judgment of the use of AI painting can the situation of infringement and over-judgment be avoided. This study explores the research methods and empirical data of AI painting moral judgment, provides reference and inspiration for subsequent AI painting research, and contributes to the work of popularizing the use of AI painting and maintaining copyright awareness to the public.

4.2. The Mediating Role of Moral Disengagement

This study found that in the influence of roles on the situation of AI painting plagiarism, moral disengagement has a significant mediating role. That is, roles affect the level of individual moral disengagement, which in turn leads to differences in the level of moral judgment.

When an individual plagiarizes using AI tools, their moral disengagement may increase, which may be due to the individual's avoidance of punishment and moral emotions. In common immoral behaviors, the actor usually has a side or partially reasonable defense for the immorality of the behavior in order to escape legal and other issues. They weaken the degree of harm done to the victim, reduce their own responsibility, or redefine their behavior. In this study, the actor redefines the plagiarism behavior as "imitation", and believes that the use of AI painting does not harm the interests of others, thereby disengaging the immorality of this behavior. At the same time, moral disengagement is an individual's cognitive tendency to avoid punishments, which may lead to more immoral decision-making or behavior (Moore, 2008). When an individual has immoral behavior, his cognition has a significant perception of immoral behavior, even if the behavior is not punished, immoral behavior will still cause subsequent moral emotions such as guilt and self-blame (Zhou, 2022). Any emotion that an indi-

vidual produces when adhering to or violating moral norms can be called a moral emotion (Haidt, 2001). These emotions are based on the evaluation and judgment of oneself and others (De Hooge, Zeelenberg, & Breugelmans, 2007). In order to avoid the impact of moral emotions, individuals will use cognitive strategies of moral disengagement to redefine immoral behavior, thereby protecting self-perception (Song, 2017). This phenomenon does not occur in the victim and the evaluator, because the victim and the evaluator do not have the essence of immoral behavior, and will not be affected by punishment and moral emotions, thereby increasing the level of moral disengagement.

The increase in the level of moral disengagement may lead to a decrease in the individual's moral judgment level of AI painting plagiarism behavior. In the cognitive reappraisal stage, the individual adjusts the harm, impact, and immorality of the behavior at the cognitive level, and believes that the behavior is no longer immoral without changing the essence of the behavior. This will cause the individual to have more immoral behavior tendencies in subsequent similar behaviors (Wen & Ding, 2015; Obermann, 2010). Moral emotions themselves have a behavioral regulation function, and the generation of emotions will affect the individual's subsequent behavior (Malti & Krettenauer, 2013; Johnston & Krettenauer, 2018). The activation of disgust can effectively control the individual's immoral behavior, but the appearance of moral disengagement weakens this effect. When an individual has a higher level of moral disengagement, the effect of disgust on controlling the individual's immoral behavior is limited. Under the current immoral behavior, a higher level of moral disengagement may lead to a decrease in disgust, a decrease in the internalization of moral standards, and then affect the individual's subsequent moral judgment and behavior. Specifically, after the actor rationalizes the behavior of AI painting plagiarism, when facing a situation that needs to use AI painting to solve the problem, they will not feel disgusted because of the same behavior. Compared to avoiding this emotion, they are more likely to judge based on previous experience and repeat previous behaviors.

In summary, this study analyzes the differences in moral judgment caused by the AI painting plagiarism problem from the perspective of roles and its influencing factors. It reveals that the role mechanism of moral disengagement provides a theoretical basis and practical guidance for coordinating the relationship between artificial intelligence and human society, protects personal rights and interests, and improves the moral level of AI painting developers and users.

5. Conclusion

The study investigates the impact of roles on the moral judgment of AI painting plagiarism, tests the role mechanism of moral disengagement, and draws the following conclusions: 1) Different roles affect the moral judgment of individuals on AI painting plagiarism, and the moral judgment level of the actor is lower than that of the victim and the evaluator. 2) Moral disengagement plays a mediating role in the impact of roles on moral judgment.

6. Deficiencies and Prospects

This study considers the three most common and most prevalent roles in AI painting plagiarism (actors, victims, and evaluators). It mainly discusses the impact of the three roles on the moral judgment of AI painting plagiarism. But real-life relationships are more complex than the three archetypes used within the study. The same person may simultaneously assume multiple roles, such as people who are original painters may also use AI for painting. Whether the conclusions of this study are applicable to more complex role relationships, and even roles other than the three, remains as basis for further investigation. Subsequent research can introduce more roles, such as AI painting software developers, etc., and discuss the differences in moral judgment when an individual plays multiple roles.

This study is a between-subject experiment. Considering the difficulty of subject selection that meets the role, in order to control individual differences, college student subjects are used, and the method of role entry is used to simulate the moral judgment of roles. The results of the simulated role entry experiment will inevitably bring about the defect of reduced ecological validity. Future experiments might consider using subjects who play corresponding roles in real life for experiments directly.

This study only uses moral disengagement as an influencing factor of moral judgment, and does not consider other possible psychological factors, such as moral emotions, moral identification, moral values, etc., which may limit the depth and breadth of the research. Furthermore, future research can implement other possible psychological factors that may affect moral judgment, such as moral emotions, moral identification, moral values, etc., to reveal their relationship and role mechanism with moral disengagement, and to construct a more complete and comprehensive moral judgment model.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

References

Ames, D. L., & Fiske, S. T. (2013). Intentional Harms Are Worse, Even When They're Not. *Psychological Science, 24,* 1755-1762. https://doi.org/10.1177/0956797613480507

Bandura, A. (1986a). *Social Foundations of Thought and Action* (pp. 23-28). Prentice Hall.

Bandura, A. (1986b). Social Foundations of Thought and Action: A Social Cognitive Theory. *Journal of Applied Psychology, 12,* 169-171. https://doi.org/10.2307/258004

Cao, Z. J. (2018). *The Influence of Art Attributes on Value Perception and Moral Judgment*. Doctoral Dissertation, Tsinghua University.

Cohen, D. J., & Ahn, M. (2016). A Subjective Utilitarian Theory of Moral Judgment. *Journal of Experimental Psychology: General, 145,* 1359-1381. https://doi.org/10.1037/xge0000210

De Freitas, J., DeScioli, P., Thomas, K. A., & Pinker, S. (2019). Maimonides' Ladder:

States of Mutual Knowledge and the Perception of Charitability. *Journal of Experimental Psychology: General, 148,* 158-173. https://doi.org/10.1037/xge0000507

De Hooge, I. E., Zeelenberg, M., & Breugelmans, S. M. (2007). Moral Sentiments and Cooperation: Differential Influences of Shame and Guilt. *Cognition and Emotion, 21,* 1025-1042. https://doi.org/10.1080/02699930600980874

Detert, J. R., Treviño, L. K., & Sweitzer, V. L. (2008). Moral Disengagement in Ethical Decision Making: A Study of Antecedents and Outcomes. *Journal of Applied Psychology, 93,* 374-391. https://doi.org/10.1037/0021-9010.93.2.374

Gray, K., Waytz, A., & Young, L. (2012). The Moral Dyad: A Fundamental Template Unifying Moral Judgment. *Psychological Inquiry, 23,* 206-215. https://doi.org/10.1080/1047840X.2012.686247

Haidt, J. (2001). The Emotional Dog and Its Rational Tail: A Social Intuitionist Approach to Moral Judgment. *Psychological Review, 108,* 814-834. https://doi.org/10.1037/0033-295X.108.4.814

Haidt, J., & Graham, J. (2007). When Morality Opposes Justice: Conservatives Have Moral Intuitions that Liberals May Not Recognize. *Social Justice Research, 20,* 98-116. https://doi.org/10.1007/s11211-007-0034-z

Huang, L., Yang, T., & Ji, Z. (2003). Applicability of the Positive and Negative Affect Scale in Chinese. *Chinese Journal of Mental Health, No. 1,* 54-56.

Jia, M. (2023). Research on Copyright Infringement Issues of AI Painting. *Communication and Copyright, No. 11,* 121-124.

Johnston, M., & Krettenauer, T. (2018). Moral Self and Moral Emotion Expectancies as Predictors of Anti- and Prosocial Behaviour in Adolescence: A Case for Mediation? *European Journal of Developmental Psychology, 8,* 228-243. https://doi.org/10.1080/17405621003619945

Li, X. L. (2023). AI Painting Falls into Copyright Dispute. Is It Creation or Plagiarism? *Sichuan Rule of Law Daily,* 003.

Liu, Y. H. (2022). May Involve Plagiarism, AI Painting Grows Wildly and Has Hidden Worries. *China Youth Daily,* 003.

Malti, T., & Krettenauer, T. (2013). The Relation of Moral Emotion Attributions to Prosocial and Antisocial Behavior: A Meta-Analysis. *Child Development, 84,* 397-412. https://doi.org/10.1111/j.1467-8624.2012.01851.x

Moore, C. (2008). Moral Disengagement in Processes of Organizational Corruption. *Journal of Business Ethics, 80,* 129-139. https://doi.org/10.1007/s10551-007-9447-8

Nucci, L., & Turiel, E. (1993). God's Word, Religious Rules, and Their Relation to Christian and Jewish Children's Concepts of Morality. *Child Development, 64,* 1475-1491. https://doi.org/10.2307/1131547

Obermann, M.-L. (2010). Moral Disengagement in Self-Reported and Peer-Nominated School Bullying. *Aggressive Behavior, 37,* 133-144. https://doi.org/10.1002/ab.20378

Smart, J. J. C., & Williams, B. (1973). *Utilitarianism: For and against*. Cambridge University Press. https://doi.org/10.1017/CBO9780511840852

Song, P. P. (2017). *The Influence of Moral Emotion on Moral Judgment of Middle School Students.* Master Dissertation, Shaanxi Normal University.

Wen, S. S., & Ding, D. Q. (2015). How Emotions Affect Moral Judgment: A Completely Differentiated View. *Psychological Research, No. 3,* 19-29.

Whitson, J. A., Wang, C. S., See, Y. H. M., Baker, W. E., & Murnighan, J. K. (2015). How, When, and Why Recipients and Observers Reward Good Deeds and Punish Bad Deeds. *Organizational Behavior and Human Decision Processes, 128,* 84-95.

https://doi.org/10.1016/j.obhdp.2015.03.006

Yang, J. P., Wang, X. C., Lu, L. J., & Zhang, L. W. (2010). A Study on the Relationship between Moral Avoidance and Academic Cheating Behavior of College Students. *Psychological Development and Education, 26,* 364-370.

Yu, F., & Xu, L. Y. (2019). Change and Invariance in Moral Responsibility Attribution. *Journal of Wuhan University of Science and Technology (Social Science Edition), No. 1,* 53-60.

Zhang, J. (2022). Seoul University AI Team Plagiarism Shocks South Korea. *Global Times,* 004.

Zhou, J. (2022). *Research on the Relationship between College Students' Moral Judgment Ability, Moral Disengagement, Moral Emotion and Prosocial Behavior.* Master Thesis, Shanxi Normal University.