Cultivations and Substitutions of Social Media: A Case Study of the Box Puppy Trend Among Chinese College Students

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Abstract. This research investigated the influence of the cultivation theory in social media platforms and the intervention of audience motivation on audience behaviour results, using Cultivation Theory and the intervention of psychological substitution mechanisms as a typical example to analyze the prevalence of the box puppy phenomenon among young people. The further researches and analyzes this phenomenon by means of questionnaires and interviews. After viewing a social media-related post, the audience is intervened by many reasons (in the report the psychological substitution mechanism is used as a typical case), will materialize ideas into behaviors and participate in the circulation of the information, so that the influence of the medium continues to expand. Exploring the true motivations and purposes of the audience's behavior and giving them a deeper understanding of their own motivations can go some way to disengaging from the cultivate of social media. Through the questionnaire and the investigation of college students, writers obtained the Dissemination Model of user motivation and behaviour patterns based on the secondary cultivation theory (Puppy Claw Model for short).

Keywords: Social media · College Students · Popular culture · Cultivation theory · Psychological substitution

1 Introduction

"I already do not want to talk to anyone without a box puppy." [1].

After November 6, 2022, many Chinese media reported about this phenomenon of college students doing box puppy, college students are raising box puppies in their dormitories. The popularity of box puppies comes from the boredom of college students during the school's closure to find their own "fun". Because of the closed management, the scope of activities is limited, time and energy cannot rely on other activities, and the inspiration for creativity is quietly breeding out of it. The box puppy is easy to operate, everyone can get started, they can be made from mailboxes, and they can be creative, which makes college students who have been away from handicraft classes for a long time feel the long-lost fun in the process of making and becomes a way to relieve emotions and release the stress of school and life. In addition to box puppies,

tigers, kittens, crocodiles, dinosaurs, etc., were all born with the ingenious hands and whimsical ideas of the college students.

The fact that "box puppy" has become the "trendy logo" in college students' campus life is closely related to the psychological changes of students under the current campus epidemic prevention and control situation. In the current environment, the regular closed management and online teaching have restricted most students' activities on campus for a long time, affecting the scope of socialisation and slowing down the normal pace of life. This makes some students feel psychologically depressed, and some are also prone to psychological problems such as sensitivity, anxiety, and depression. [2]

2 Problem Statement

Media posts and messages related to box puppies are widely spread on domestic social media and platforms. Gerbner and his colleagues present the central thesis of connotation theory: television "cultivates" or "creates" a "worldview". This worldview, though not necessarily accurate, easily becomes a reality. The "landing" of the box puppy is a testament shows the influence of social media on the fixed audience, which is reflected in the motivation and behavior of the audience. At the same time, people constantly get new stimuli through what we see, hear, and feel. These new stimuli enter our mental system and cause our cognitive system to change constantly. Therefore, in the vast majority of cases, the cognitive system and mental health is not an absolute balance, only a relative balance. [3] During the school closure period, the living environment of the information audience tends to be more depressing and closed, which to some extent prevents many college students going through this period from returning to the family environment and having emotional communication with the pets they keep. At the same time, the rule against keeping pets in university dormitories also prevents many college students from experiencing the psychological sensation of keeping pets.

Suppose communication media can give individuals the same feelings on an emotional level as offline interactions. In this case, they will be perceived as "real people," such as pet owners who approximate the psychological surfaces of interacting with unreachable pets through this behaviour. [4] During the closure, conditions such as physical distance and eye contact that affect the intimacy of the communicating parties are limited by uncontrollable factors, so box puppy provides a psychological proxy for these pet owners who cannot return to their pets, these pet owners are indirectly reminded of the time they spent with their own pets by playing with box puppy, taking pictures, and walking them and become a link to enhance the flow of information during the whole process from the data flowing from the media platform to the implementation on the ground.

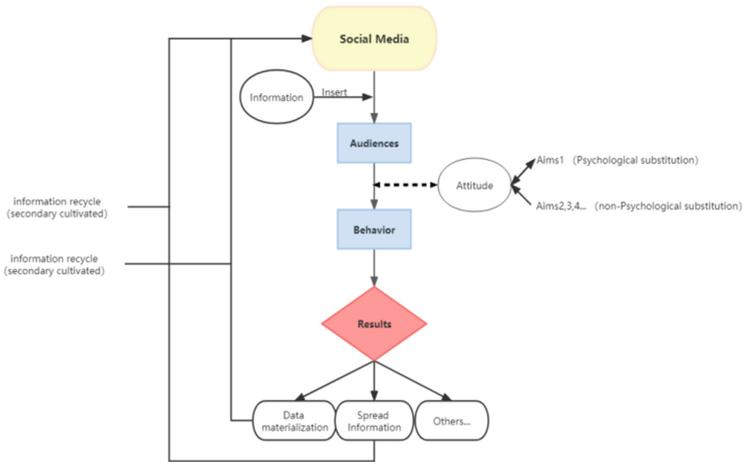Authors propose a Dissemination Model for this (Fig. 1):

Fig. 1. The Puppy Claw Model

3   Research Scope

The influence of specific ways of information dissemination on specific people in the context of new media is dominated by first-level and second-level cultivation theory and involves different motivations. The scope of this survey is college students from mainland China, who have more or less read the information of Box Puppy.

4   Research Objective

1. Prove that first-level cultivation theory is still applicable in the context of new media and our research objects.
2. Prove that the psychological substitution mechanism exists as one of the motivations in the case of Box Puppy, which promotes the materialized attitude of the audience.
3. Prove that new content published by audiences will affect official or more influential accounts, forming secondary cultivated.

5   Research Questions

1. Prove whether cultivation theory valid in our research community?
2. Does the psychological substitution mechanism exist as audiences' motivation?
3. Will the content posted by the audience influence the more influential accounts and form secondary cultivation?

6   Methodology

Authors have three research methods: questionnaire survey, interview and secondary data analysis. Authors will screen the interviewees when we distribute the questionnaire in the first step. Only those who meet the above conditions will be invited to further

research. There are three reasons for this: (a) Making box puppies is widespread among college students. (b) Only those who have made box puppies can further study their motives and subsequent effects. (c) The closure of schools is a central premise.

6.1 Questionnaire

As the primary data source for preliminary screening and research on media impact, the tool we chose can collect and analyze questionnaire data online and in real time. In the design of the question, authors first set up the screening of identity information to exclude participants other than college students. Secondly, participants who have seen box puppies and those who have not seen such messages on social media are differentiated, and specific information of these two groups is collected respectively to better explore the influence of media in the whole process. The success rate of data collection was about 99.46%.

6.2 Interview

In the collected questionnaire results (final N = 184), we selected 24 eligible participants for in-depth interviews, N = 20 participants agreed to participate in this interview. The interview was conducted in the form of a phone call, and the whole process will be recorded.

6.3 Secondary Data

In order to make the research rigorous and universal, the researchers also collected a large number of secondary data in addition to questionnaires and interviews. The official media involved are China Youth Daily and official accounts such as Zhizhu Web's report and analysis of the widespread phenomenon of college students making box puppies. The data and corresponding analysis also supplement and confirm our research, such as improving interpersonal relationships, developing hands-on ability, experiencing a positive psychological state and other reasons. This research focuses on the influence of media on people (cultivation theory and its extension) and psychological compensation mechanism.

7 Literature Review

Since media cultivation and psychological substitution are influences from two perspectives, passive and active, therefore, they will be reviewed separately in this study to cross-analyze the specific reasons for the emergence of the behavior of box puppies. This literature review will discuss the influence of cultivation on behavior from both primary cultivation, including environmental issues and audience issues, and secondary cultivation, including positive and negative aspects. It will also analyze the existing domestic and international literature from the perspective of psychology and conduct a specific case study from the perspective of psychological substitution.

7.1 Two-Way Cultivation

American communication scholar George Gerbner put forward the cultivation theory. The main content of cultivation theory is that the mass media has a subtle and long-term influence on the audience while spreading various information. [5] However, with the development of multimedia, the traditional cultivation theory is gradually transformed into a new cultivation theory. Furthermore, scholars in China and abroad also hold two kinds of opinions on it, which authors summarize as primary and secondary cultivation.

7.1.1 Primary Cultivation

With the development of new media, the public is exposed to a broader range of media and receives more detailed information. As the interaction between people and the media gradually increases, the public will implicitly be influenced by the information in the press. [6] Gerbner first proposed this as cultivation theory, which we also call primary cultivation. The causes of primary cultivation in the new media era can be divided into two types according to the existing literature. Namely, environment and audience. [7].

- Environmental issue:

    As audiences are exposed to more sources of media forms, they are also more susceptible to the medium, and for Chinese audiences, the same message may appear multiple times on Xiaohongshu, Weibo, WeChat and TikTok. The rapid development of new media has enabled the public to quickly get a lot of fragmented information in a short period. And new media also shared some content shared in a large amount in a short period, leading to the rapid spread of information. [8] So the content on the media is no longer only spread on virtual networks but also shifted to the real world, which has a particular influence on people's behavior. [9] It is also because the background of the current era allows a variety of information to come into people's lives through a variety of media, so people can only understand or judge a matter through uninterrupted media news, which leads to a pronounced cultivation effect. [10]

- Audience issue:

    The audience's time to read the same content gradually increases with the development of new media, and at the same time, the algorithm of big data will push the specified content to the page that the user browses.
    When the public accepts the information spread by the media, they will choose the type of information they receive independently. Therefore, online media can make intelligent interest recommendations by accurately analysing the needs of the public. By sending the same message several times, the audience will gradually move from unfamiliarity to familiarity and even integrate this particular content form into their lives after long-term exposure. [11] The state of audience cognition also changes from content acquisition to information storage. The audience will decide which information will be stored and compared with the previously held content based on their attention and habitual cognition, producing different cultivation effects in the long run. [12]
    However, while affirming the influence of media cultivation, some scholars have also proposed other ideas. In today's digital age, people's choices are increasingly diverse

and differentiated, so multimedia significantly weakens the holistic impact on the audience. [10] Audience initiative plays a prominent role in the new media. Therefore, the psychological change of the audience is no longer just receiving information but also influencing and screening information. [13] We refer to this as secondary cultivation, which means the audience cultivates media.

7.1.2   Secondary Cultivation

When the public is influenced by media cultivation, it also transmits information outward through the media, which produces specific feedback and influences the media, which we call secondary cultivation. Whether the new media will change the traditional cultivation model has also attracted the attention of many scholars in China, and some scholars have proposed a new cultivation model.

Since the Internet has dramatically improved communication speed, its anonymity, convenience, and real-time have caused some impact on the traditional cultivation theory. The emergence has broken the old linear communication model in the traditional cultivation theory of new media. In the new media era, the media empowers the audience, which means that the audience can also participate in the whole process as the subject of information dissemination. Moreover, the way of cultivation has gradually changed from the one-way linear process of "media cultivates the audience" to the two-way influence and interaction process of "media cultivates the audience" and "the audience cultivates media". [14] At the same time, some scholars point out that "media cultivates the audience" and "the audience cultivates media" is a self-cultivation process of continuous circulation and mutual influence. [15]

In addition, some scholars suggest that when analysing the cultivation theory, it is still necessary to consider the influence of audience psychological changes. [16] Therefore, our group will further propose the topic of psychological substitution as a motivational intervention in cultivation theory and study its influence on cultivation theory.

7.2   Psychological Substitution

7.2.1   Status of Domestic Research

There are few studies on psychological substitution behaviour in China, and the main disciplines involved in the known literature are medicine and pharmacology. The number of psychology-related literature is minimal. However, in the currently known psychology-related literature, it can be seen that the demand for compensatory behaviour among college students is exceptionally high. [14] When encountering insurmountable obstacles, psychological substitution will give up the initial goal by achieving other similar purposes, seeking internal satisfaction. The data from Taobao show that 70 million adults bought themselves toys in 2019, of which 57% were post-90s. In response to this phenomenon, a psychologist at University College London argues that many adults' need for toys is a substitute for childhood regrets and may also be a nostalgic pursuit. [17] Some scholars studying the emotional game of online cohabitation have suggested that because college students have a thirst and need for sexual culture, they use online cohabitation as a substitution behaviour for the sex and disguise self-satisfaction to satisfy their emotional needs and curiosity. [18] Therefore, when people need something but cannot

be satisfied, they tend to adopt substitution behaviours to get satisfaction. Moreover, people also engage in potential virtual substitution behaviours to vent their desires, such as watching mukbang. [17] In addition, missing experience also causes people to imagine satisfaction, a kind of substitution psychology. [19] Therefore, we can see that domestic scholars have focused more on the satisfaction brought by psychological substitution.

7.2.2 Status of Foreign Research

There are slightly more studies on psychological substitutions abroad than in China. The American psychologist Brin pointed out in the psychological reactance theory that when an individual perceives that his free behaviour is threatened, he will be awakened to the motivational state of psychological resistance. Moreover, this motivational state shows that the individual will try to release the threat faced, prevent further loss of freedom, or rebuild freedom. And at this time, he will usually resist external suggestions and information. This state of motivation is characterised by the individual's desire to remove threats, prevent further loss of freedom, or reestablish independence. The factors influencing the strength of psychological resistance are the expectation of freedom, the threat of deprivation of liberty, the importance of freedom, and whether it will affect other freedoms. When people's freedom is restricted, psychological defence mechanisms, i.e., psychological substitution, are triggered. The study Substitution and Substitution in the Social Networks of Older Widowed Women mentioned that the absence of close social relationships causes a lack of support in people's lives. Hence, people look for substitute relationships to compensate for their loneliness. [20] Many respondents see television as a temporal and social substitute, [21] as mentioned by foreign scholars who have explored older adults' attitudes toward television. In addition, other types of needs may also cause substitution, such as some users may use Facebook for social substitution, such as establishing new relationships. [22] Therefore, based on the existing national and international literature, we can conclude that psychological substitution can motivate people to do something.

Many existing foreign studies in different fields also refer to substitution behavior and analyze the impact of psychological substitution through case studies. Imen Khelil, in his study on psychological capital (PsyCap) and moral courage on internal audit effectiveness (IAE), collated the responses of managers and concluded that PsyCap and moral courage are not playing a complementary role in improving IAE, but PsyCap substitutes for moral courage in increasing IAE. [23] Fiske has also mentioned that in the study of social substitution people often choose a substitute for the predetermined interactor in order to uncover how they represent their social intentions. The authors also argue that the natural occurrence of the absence of substitution preserves the relational pattern of the interaction but not the characteristics of the individual participant. This shows that the act of mental substitution is also applied in sociology. [24]

8   Research Gap

8.1   Theoretical Implications

In conclusion, social media cultivation and people's realistic behaviour will achieve two-way cultivation. The resistance that occurs in the process will be transformed into substitution behaviour as some motivation. In the case of box puppy, the subject of the study is a college student in closure schools, and it is precisely in the context of restricted freedom that people's expectations of freedom are significantly increased and therefore there is an ideological resistance to the closure of schools. In substitution for recreational behaviors or elements of freedom, group substitution behaviors emerged, making a box puppy a psychological substitute for certain needs. At the same time, the information on social media is also influencing group behavior in a subtle way, making puppy in a box popular among colleges. To obtain satisfaction and spiritual needs, people's substitution behaviour becomes a motivation to intervene in the primary cultivation, which has a specific influence on the audience's behaviour. In secondary cultivation, vicarious behaviour also motivates to influence media further.Therefore, in this study, psychological substitution is added as a motive in the two-way cultivation process between media and people to analyse the application of psychology in the context of communication.

8.2   Practical Implications

There is no research on this case and this method of communication in China and abroad, so this study will fill the gap in the research field of the influence of psychological substitution in the cultivation theory.

9   Conclusion

The changes in the media will cultivate the social environment, which in turn will cultivate the behavior of individuals. [7] In this research, the reception of information in social media affects the audience's behaviors, and more people have begun to make box puppies, which is consistent with this view. The way people receive information has changed dramatically due to big data. Netizens actively search the first type of search information, one of the ways to get similar information is the pushing messages, which is pushed to users through enterprises or organizations based on their characteristics. [8] Whatever type of information push is based on the original characteristics and needs of the user, it increases the directivity of the user's reply. In our case, viewers would post on social media after seeing or creating a box puppy, thereby influencing the behavior of a larger new media audience. Such secondary cultivation, when the public is influenced by media cultivation to share information to the outside world via media, generates specific feedback and makes the original recipients of the information an integral part of the information transmission. The media cultivates the audience and influences people's behavior, and the audience also activates the media, which enriches ecology even more.

In conclusion, after receiving information, people will translate it into practical actions and show it in their lives, and then return it to the media in the form of information.

This study sheds light on the directional propagation of information after social media cultivation. Because media cultivation and audience feedback to media is a continuous process of circulation and mutual influence, interventions at each node will become critical for obtaining traffic. At the same time, authors find that the substituted action of a person in order to obtain his spiritual needs is also the key to catching the current. Thus, this study provides new knowledge on the generation and propagation of popularity.

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