Chinese audiences' judgments on culturally incongruent product placement in movies

An online experiment

Student Name: Zihao Jin
Student Number: 534498

Supervisor: Dr. Petra Tenbült

Master Media Studies - Media & Business
Erasmus School of History, Culture and Communication
Erasmus University Rotterdam

Master's Thesis
June 2021

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ABSTRACT

In the past ten years, the product placement market in China has been activated by the increasing cooperation between brands and various media programs. Dating back to the year of 2009, the appearance of several Chinese brands in the Hollywood blockbuster, *Transformers*, could be considered the starting line of Chinese brands seeking for greater influence through imported media contents. Movies, as the major imported entertainment media commodity in China, naturally became the main field of the product placement collaboration of Chinese brands and foreign media hosts. In this process, the contradiction between the Perceived Brand Globalness (PBG) of the Chinese products and the Cultural settings of the foreign movies were discovered and criticized by some of the major news platforms in China. However, this may not represent the opinions of the Chinese movie audiences on the placement. In this case, this study investigated *to what extent cultural congruence of Chinese product placement in movies influences Chinese audience's judgment of it.* Hypotheses were formulated according to previous studies relating to cultural congruency in advertising and product placement fields. To test the hypotheses, this study incorporated a quantitative method to collect comparable numerical data. An online experiment was conducted on Chinese audiences to compare their judgment of the product placement in different culturally congruent contexts. The experiment measured the PBG levels of several selected Chinese brands, the localness and foreignness of movie settings, and the ethical and evaluative judgment of the Chinese audiences on the placement. The results

from an ANCOVA suggested that, firstly, the Chinese audiences would not ethically judge a product placement differently according to the PBG levels or the cultural settings of a movie. Secondly, the products of medium PBG level would receive more positive evaluative judgment of their placement in a very limited effect size, while the cultural settings of the movie would not make a difference. Lastly, the cultural congruency levels would not cause the audience's judgment to vary in different degrees. In conclusion, the cultural congruency could be considered not a decisive factor of the Chinese audiences assessing the quality of the product placement.

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1 Introduction

2009 may be the first year in which Chinese advertisers seek to experiment with product placements in the international film market. In the 2009 film Transformers: Revenge of the Fallen, a giant billboard reading Metersbonwe, a fast-fashion clothing brand from China, flashed across the screen. It was the first time a Chinese brand had appeared in a Hollywood film. Although Metersbonwe only appears in the background less than two seconds in purely visual form, it has opened the eyes of other Chinese brands to the opportunity of cooperating with Hollywood moviemakers. In 2011's Transformers: Dark of the Moon, four Chinese brands were featured: Lenovo, TCL, Yili, and Metersbonwe. One of the most widely discussed brands was Yili's Shuhua Milk. The Shuhua Milk was placed by audio-visual modality, which is considered more effective in product placement (Russell, 2002). Not only did Ken Jeong, a supporting actor in the film, say the name of the product in Chinese, but he also drank it on camera. Shuhua Milk was widely recalled and discussed by Chinese people on the Internet after the film's release. The results showed that the placement worked surprisingly well for the brand. After the movie Transformers: Dark of the Moon, the sales of Shuhua Milk rose 12% in that year (Sebag-montefiore & Zeitchik, 2012). The period sales of this milk even increased by 40% compared to the year-on-year growth after the second time placement in the sequel Transformers: Age of Extinction (Wei, 2016).

Despite this, there has been a great deal of criticism from viewers and the media about the placement itself (Lee, 2015; Wei, 2016). One of the most criticized scenarios was that the main character, played by Mark Wahlberg, has a credit card written China Construction Bank in Chinese and uses it to withdraw money from an ATM in a remote Texas town displaying a China Construction Bank logo. This may not seem much problematic to overseas audiences, as they do not know the bank. On the other hand, this could be a very abrupt scene to a Chinese audience (Liu, 2014) because the bank was never portrayed as a global one in China. This raises the question of why many of the Chinese audiences do not accept that in a Hollywood movie a local Chinese brand appears.

Product placement is still popular because of it being the substitute of traditional advertising to reach audiences when the effectiveness of traditional advertising is challenged

by its oversaturation and the more developed ad blocking technologies (Guo et al., 2019). Not only in commercial practices, but product placement is also a heated topic in academic research. As a young field of advertising, above 95% of product placement studies were conducted between 2003 and 2017 (Guo et al., 2019) and still to be explored. An integrative model framework of product placement proposed four elements in product placement research: execution factors, individual specific factors, processing depth, and placement effectiveness (Balasubramanian et al., 2006). The model assumes that the execution factors and individual specific factors would influence the effectiveness of product placement through affecting the processing depth. Execution factors, according to Balasubramanian et al. (2006), refer to how the product placement is applied, such as the placement modality, the priming of brand, the congruence between brand and the host, etc. Individual specific factors are the traits processed by the audience, for example, their judgment of the congruence, the attitude toward placement in general, the level of skepticism toward advertising, etc.

Therefore, in other words, the characteristics of a product placement and the perceptions of the audiences will affect their level of processing on the given product placement, and then influence the expectations on the effectiveness of the product placement. However, the model only elaborated the joint force of the characteristics of the product and audiences but neglected to investigate the relationship between the two factors. To enrich the model by connecting the two factors, and in regard of the phenomenon mentioned above, this study will investigate the relationship between the cultural congruency of the product placement and the audience's judgment of it.

In previous studies, scholars have investigated topics related to cultural congruency such as brand origin (e.g., Josiassen and Harzing 2008; Magnusson, Westjohn & Zdravkovic, 2011), perceived brand globalness (e.g., Sichtmann & Diamantopoulos, 2013), and the cultural congruence of product and advertising appeals (Zhou, Poon & Wang, 2015). However, they were hardly applied to product placement. Additionally, in the scholarship of product placement, the majority of the literature focuses on its effect on media consumers, including brand recall (e.g., d'Astous and Chartier 2000; Dens et al. 2012; Russell 2002), brand attitudes (e.g., Cowley and Barron 2008; Homer 2009), and consumer attitudes towards

product placements (e.g., de Gregorio and Sung 2010). Therefore, this study aims to expand the research on cultural congruency in the field of product placement.

Furthermore, the nature of cultural congruency determines that it is more obvious or observable when a local product has been placed in imported media commodities. For example, if a Chinese brand is placed in a foreign setting of a Chinese made media program, it might not be an outstanding conflict since both the brand and the media host are Chinese origin. This research has chosen movies to be the studied media host. Firstly because, in Chinese market, product placement in movies, TV series, and reality shows are still the most frequent placing format. Even though the in-game placement is rapidly increasing in countries like the U.S. and Japan, it remains undeveloped in China. Therefore, this study focused on the more mature market. Secondly, in Chinese market, the proportion for imported TV series and reality show is nearly zero due to broadcasting regulations and laws. Therefore, a study of cultural congruency of product placement in movies is more meaningful. As a result, this study aims to shed light on culturally incongruent product placement issues in movies.

Moreover, most of the studies of product placement were based on the US (Chan, 2012), and the cross-cultural generalizability of attitudes toward product placement is limited in applications to neutral products (in opposition to controversial products like cigarettes and alcohol) which were placed in movies (Eisend, 2009). This proposed study plans to be conducted in the world's second-largest and increasing market, China.

Besides the academic relevance, the study also has several managerial implications. First, the criticism against Chinese products placed in foreign movies from the press is not an adequate reason for both the brand and the movie producers to reconsider their strategy. This study might provide extra evidence for them to consider their collaboration. Second, this study will give implications for Chinese brands to choose the host movie for product placement. In the decisive process, they could discuss whether cultural congruency is a significant point. Lastly, for the movie producers, product placement revenue from Chinese market is also an option. The answer to the research question may also suggest whether cultural congruency is a significant factor of the development in product placement industry.

As a result, the research question of this research is finally formulated as:

To what extent does cultural congruence of Chinese product placement in movies influence Chinese audience's judgment of it?

2 Theoretical framework and hypotheses

Since the purpose of the study is to investigate how cultural congruence affects the audience's judgment on product placement in movies, the following sections elaborated on the critical theories to conceptualize the research question. Firstly, the definition of product placement is provided according to key literature in the field. Secondly, Social Judgment Theory (SJT) is employed to explain the possible causal relation between culture congruence and the audience's judgment on the product placement advertising. Thirdly, cultural congruence was clarified as matching a product's Perceived Brand Globalness (PBG) and the localness/globalness of the setting in which movie the product placement is hosted. Finally, the audience's attitude on the focal product placement was elucidated as two dimensions of ethical and evaluative judgment. The study's hypotheses were accordingly developed under the theoretical framework and presented at the end of the chapter.

2.1 Product placement

Product placement is a relatively younger and still developing term in advertising. It was first defined by Balasubramanian (1994) as sponsored advertising messages aimed to influence audiences by the designed and noticeable entry of branded products into movies or TV shows. As a type of hybrid messages, product placement seeks for an unconscious commercial influence on and different processing of commercial advertisement from audiences. Moreover, when the audiences perceive a message as a way of persuasion on them to purchase, it loses credibility (Moore & Rodgers, 2005). In this sense, the opportunity of the entry of a product placement is a significant factor in defining a successful product placement. In other words, the characteristics of product placement disappear when they are judged as traditional advertisement. Therefore, by the definition, the characteristics of a successful product placement should consist of that, firstly, the audiences receive as least commercial information and purchasing persuasion as possible; secondly, the audiences notice the brand as clear as possible. However, this definition limited product placement only in movies and TV programs, excluding other media hosts.

Gupta and Gould (1997) viewed product placement in another perspective. They

defined product placement as "placing brand name products in movies as props" (Gupta & Gould, 1997, p.40) for monetary or promotional benefits. However, this understanding had narrowed the opportunities in appearing as entities in the host media. Because in practices, according to the information processing perspective dimensionality, product placement is not only limited to visual appearance of branded products in host media, but also auditory presence and the combination of both (Russell, 1998). Later, Karrh (1998) developed the concept as the inclusion of branded products or identifiers within various media hosts via any modality. This definition was resonated by many subsequent studies (Karrh et al., 2001; Smit et al., 2009; Van Reijmersdal, 2009).

Among these adapted definitions in previous studies, three main characteristics could be observed, including (1) deliberate integration of brands and media programming, (2) with a delicate but obtrusive entry, and (3) for benefits or promotional effects. In this study, the subject and experimental materials were accordingly determined.

In previous studies, scholars discovered several streams or clusters. Guo et al. (2019) identified three main categories of product placement studies, including (1) basic concepts, models, and empirical studies in movies and TV programs, (2) product placement in games and children as audiences, and (3) the disclosure of product placement. Chan (2012) categorized five trends in product placement research, including (1) brand appearance and prominence in movies or TV programs, (2) placement effectiveness, (3) the development and trends of product placement research, (4) practitioners' views, and (5) perceptions and ethical acceptability of product placement in different cultures. Additionally, Chan (2012) noted that the field is hegemonized in the US context. In accordance, the current study meddled with the product placement in movies and the Chinese context.

Furthermore, Balasubramanian, Karrh and Patwardhan (2006) elaborated four important factors of product placement in a proposed integrative model framework, including execution factors, individual-specific factors, processing depth, and placement effectiveness. The four factors respectively accentuated four perspectives, which are in line with the characteristics incorporated above. Execution factors showcase the implementation of the integration and the level of obtrusiveness, such as the congruence between branded products

and the media host and the exposure frequency. Individual-specific factors incorporate audience characteristics, such as their judgement on the fitting of the product placement. Processing depth indicates the audiences' take-in, and placement effectiveness measures the outcome of the promotion. In the current study, the variables of cultural congruency and audience's judgment toward the product placement were developed from the relationship between the execution factors and the individual-specific factors, and the effectiveness factor.

2.2 Social Judgment Theory

Social Judgment Theory (SJT) believes that when people have received a persuasive message of an object, they immediately compare the message to their current beliefs to decide the degree of accepting it (Sherif & Hovland 1961). If the message is closer to the subject's existing perception of the object, the acceptance latitude for a decision is larger. In opposition, when the message is distant from the subject's attitude toward the object, the rejection latitude grows larger. Finally, if the message is neither acceptable nor questionable, the subject's attitude will firstly fall in the latitude of non-commitment. In the case of product placement, if the message (e.g., the depiction of the product and the scenario it is placed) is closer enough to the audience's recognition or image of the product, the audience will be more ready to accept the advertising message and generate better judgment on the placement.

Furthermore, according to SJT, Cui et al. (2009) stated that marketing practitioners could adjust the distance between a conveyed message in advertisements and consumers' held views. In other words, the audience's judgment on the advertisement can be affected by how the product is presented. Therefore, this kind of distance or matching defines the cognitive realm of congruence levels in this study.

2.3 Audience's judgment of the product placement

Since product placement travels across cultures in movies, it is common that people in one culture interpret the placement, which is programmed by people in a different culture (Gupta & Grabner-Krauter, 2000). This proposed study sees the audience's judgment on a product placement as a two-dimensioned concept: ethical judgment and evaluative judgment.

Studies about reactions or attitudes toward product placement usually stress two aspects (Gould, Gupta & Grabner-Krauter, 2000): (1) attitude toward product placement in general (e.g., Ham, Park & Park, 2017; Sabour et al., 2016) and (2) attitude toward specific product types in product placement (e.g., McKechnie & Zhou, 2003; Gould, Gupta & Grabner-Krauter, 2000). All these studies suggested that attitudes toward product placement are to be viewed from an ethical perspective because of research conducted by Gupta and Gould (1997) regarding the ethical concerns with product placement. However, the foundation of their ethical perspective on product placement was established on the controversial deceptive and subliminal nature of the "hidden but paid" type of advertisement (Gupta & Gould, 1997, p. 38). This study aimed to extend the ethical judgment to a cultural context.

Besides, judgments on product placement should include the ethical aspect and an evaluative judgment of realism and honesty. As mentioned before, moviemakers introduce product placement into movies partly because they believe that real-life brands add reality to the movie programming (Balasubramanian, 1994; DeLorme & Reid, 1999), and so do the audiences (Sung, de Gregorio & Jung 2009). When culturally incongruent product placement occurs in movies, the host movie may detract from the audiences' realistic experience. Therefore, the evaluative judgment on product placement was also a focus in the study.

2.4 Cultural congruency

In general, congruency elaborates the association between the placed brand or product and the story (Balasubramanian et al., 2006). In different niches of product placement studies it may have variations in terms regarding the host media, such as Game-Product Congruity in product placement studies in games (Peters & Leshner, 2013), or Sponsor-Program Congruity in product placement studies in mass media (d'Astous & Bitz, 1995). However, Lee and Faber (2007) pointed out that according to the interests of the researchers, they focused on different aspects in the branded products and the host media. For example, Moorman et al. (2002) examined the congruence between the context and the ad in it; Russell (2002) investigated the modality (i.e., audio and visual placements) and the plot connection; and Rodgers (2003) studied the relevance between the sponsor and the sponsored event. Even

though some studies tried to categorize the elements in the two ends of congruence (Balasubramanian et al., 2006), new points of interest kept emerging. But they do not scatter far from the axis that congruence indicates to what extent the product placement seems to be natural and consistent with the host, and a relatively prominent consensus that the product placement becomes less credible when the congruence is week (Williams et al., 2011).

For the purpose of this study, cultural congruence is therefore defined as to what extent the Perceived Globalness of a Chinese branded product fits in the cultural settings of the host movie. Zhou and Belk (2004) stated in their study of the Chinese consumers' readings of global advertising appeals that marketers add Western and cosmopolitan elements or background to local brands in the advertisement to increase persuasiveness because of the *mianzi* (prestige face) culture and nationalism among Chinese consumers. This mixture of foreign and local products, image, and advertising appeals is also explained as the result of the crossing influence of global and local culture in China and many Asian countries (Zhou, Poon & Wang, 2015; Zhou, Yang & Hui, 2010). Incongruence thus has been engendered between the foreign cultural appeals and local brands. When the messages on different congruence levels are compared to the local brands' held views, different attitudes will arise from customers. To elucidate the held views on a local product or brand in a cultural sense, the concept of Perceived Brand Globalness (PBG) was thus introduced. Simultaneously, the counterpart (i.e., the advertised message) in generating cultural congruence in product placement in movies is incorporated as the localness/globalness of the setting in a hosted movie.

Perceived Brand Globalness

Perceived brand globalness (PBG) refers to the extent to which a brand is viewed as globally marketed by its target consumers (Steenkamp, Batra & Alden, 2003). This definition was quite welcomed in recent studies about brand origin and extension (e.g., Halkias, Davvetas & Diammantopoulos, 2016; Swoboda, Pennemann & Taube, 2012). Steenkamp, Batra, and Alden (2003) stated that firms take advantage of PBG in many ways (e.g., brand name, logo, advertising appeals, etc.) to enhance brand image because in the sense of

signaling theory, consumers use cues instead of investigation to infer the quality of products (Sichtmann & Diammantopoulos, 2013), and consumers are likely to be more attracted by globally positioned brands, especially in emerging market (Alden, Steenkamp & Batra, 1999) such as China. This interpretation offers strategies to local brands that, instead of operating in global markets, presenting global characteristics in marketing communication can also enhance products' perceived quality. Ozsomer (2012) also claimed that for local brands in an emerging market, it is an effective defense strategy against foreign brands to increase PBG. Therefore, this study assumed that the PBG level of a product will not only influence the perception of the commodity, but also will affect the audiences' judgmental feelings of the placement and hence these hypotheses:

H1a. High PBG level of the product has a more positive effect on the ethical judgment on the product placement than medium PGB level.

H1b. Medium PBG level of the product has a more positive effect on the ethical judgment on the product placement than low PBG level.

H2a. High PBG level of the product has a more positive effect on the evaluative judgment on the product placement than medium PGB level.

H2b. Medium PBG level of the product has a more positive effect on the evaluative judgment on the product placement than low PBG level.

Localness/globalness of movie settings

Product placement offers good chances for local brands to create a global image because it can be located in the script far before the movie production to satisfy the sponsors' desirable story contexts. (Balasubramanian, 1994). For instance, if a Chinese brand wants to portray that its product is welcomed in the Netherlands, a setting could be created as it appears in a Dutch family scene or a Dutch film. Even though there are few literatures about the cultural settings of movies in the field of product placement, advertising studies have made some suggestions that may be extended into the area of product placement. Zhou and Belk (2004) argued that global appeals   are welcomed among the Chinese market.

Nonetheless, they also found that the global settings in advertising are not necessarily better than local settings. Essentially, global or, in most cases in China, Western appeals do not prevail for its own sake. Therefore, it is possible that in product placement, the localness or the globalness of the movie setting do not significantly affect the Chinese audiences' judgment on it. Two hypotheses were thus developed:

H3a. The ethical judgment of Chinese audiences on the product placement do not vary on local or global movie settings of it.

H3b. The evaluative judgment of Chinese audiences on the product placement do not vary on local or global movie settings of it.

Successful product placement is not a unilateral decision by the sponsoring brand. The brands have the total discretion on the settings of a product placement. Moviemakers also need the product to fit the story well as consumers "believe that product placements increase the realism" (Meyer et al., 2016, p.8) of the host media (i.e., movies), and realism in the movie is always compared to the audiences' personal relevance when they are evaluating the movie (Charkravarty et al., 2010).

In the perspective of SJT, when the realism created by moviemakers and sponsored brands is far away from the audiences' pre-held views of the context (i.e., the movie's cultural setting) and the product (i.e., PBG of the product), the audiences will probably reject the scene with a low evaluation of the product placement. Therefore, this study assumed that in an emerging market like China, the interplay of the PBG level of a product to be placed in movies and the placement's cultural context will influence the audiences' judgment on a particular placement. If the cultural congruency does exist as the theoretical model has suggested, it is possible that the variance of the audiences' judgment on the product placement differs when products of different PBG levels appear in different cultural settings of the movie. Thus, an interaction might be discovered:

H4a. The effect of the PBG levels of a product on the ethical judgment of the product

placement differs between the cultural settings of the movie.

H4b. The effect of the PBG levels of a product on the evaluative judgment of the product placement differs between the cultural settings of the movie.

3   Methodology

In this chapter, the choice of method, the operationalization of variables, the pilot test, the experimental procedure, and the validity and reliability of the experiment were demonstrated. The choice of method section explained how the between-group factorial experiment was chosen, the consideration for an online experimental questionnaire, and the choice over the analytical approaches of the data. The operationalization section discussed the measurement of the independent variables (i.e., the PBG levels and the Cultural settings) and the dependent variables (i.e., the Ethical judgment and the Evaluative judgment). Next, the pilot test and the procedure section exhibited the conduction of the pilot test and the online experiment. Finally, the validity and reliability of the experiment were discussed.

3.1 Choice of method

Quantitative research

This study employed the quantitative research method. Since the study aims to investigate how the PBG level of the product, and the cultural settings of the movie will influence the audience's attitudinal judgment on the hosted product placement, it requires the numerical measurement on each variable for a relational model. As defined by Aliaga and Gunderson (1999), the explanations to phenomena are provided by analyzing numerical data; a quantitative method is necessary (Muijs, 2011). Besides, the quantitative research method allows the collected data to be numerically represented and is effective in modeling the relationships between multiple variables (Goerzen, 2017; Muijs, 2011). Additionally, in another perspective, with several existing measuring scales (which were demonstrated in the operationalization section), the variables in this study were able to be quantified. Therefore, the quantitative method is selected to enable the study to collect quantified data for hypothesis tests. In this study, the variance of the Audience's judgment on the product placement to the PBG levels of the products and the Cultural settings of the movie was analyzed based on appropriate quantification of the data. Moreover, according to Babbie (2014), quantification means that the data of social science are readable by computers and can by processed in preferred analytical approaches with the help of statistical software, such as SPSS, which is

used in the current study. Finally, quantitative research often tends to find out explanations to phenomena that can be applied to a larger group of people (Allen et al., 2009). In this study, inferential information was required to be generalized to the whole Chinese movie audiences. As a result, the quantitative research method was adopted.

Between-group factorial experiment

Furthermore, to determine whether the PBG levels and the Cultural settings have a significant effect (i.e., main effects and interaction effect) on the Audience's judgment, the study incorporated an empirically based experiment. Because experiments allow the comparison of variance under different controlled settings (Neuman, 2014). In the case of this study, the experiment empowered the researcher to created multiple stimuli of products on different PBG levels, and product placements in different cultural settings of a movie. In addition, also according to Neuman (2014), a properly designed experiment could mostly mimic the natural real-life scenario and, at the same time, control or mitigate the influence of the confounding variables which are common in the reality, hence the internal validity of the method and results. In this sense, the results of the study could be better generalized to bigger population as possible.

More specifically, this study conducted a between-group factorial experiment (Neuman, 2014). It is firstly because of that the study aimed to compare the variance of Audience's judgment on the product placement based on different products PBG levels, and different Cultural settings of the movie. Therefore, the between-group experiment was chosen to compare across different groups of treatment. Secondly, the study also investigated the influence of the cultural congruency (i.e., PBG levels vs. Cultural settings). A factorial experiment satisfied the demand of investigating the simultaneous effects of the PBG levels of the products and the Cultural settings of a movie (i.e., the cultural congruency), and allowed for interaction effect analysis (Neuman, 2014). Therefore, a between-group, 3 (high vs. medium vs. low PBG level) × 2 (local vs. global movie setting) factorial experiment was developed.

Online questionnaire

The experiment took form in an online questionnaire. Conducting an online experiment accounts for the feasibility and randomization. It is cheaper and less time consuming than a real-life experiment. Besides, due to the limitation of other resources (e.g., co-workers, place, etc.) and the regulations during the COVID-19 pandemic, an online experiment could be the most feasible and economical approach. Moreover, online experiment allows for longer data collection period and the expansion of participants. The respondents could be more diverse and could complete the experiment on their own pace (Bryman, 2016). Besides, online experimental tools, such as Qualtrics and Tencent survey (which were discussed in the procedure section), allow random assignment and digital data recording. Therefore, it is a proper approach for valid comparison and convenient data collection and preparation.

Analytical approach

The study conducted different types of analysis according to the purposes and types of data. First, factor analysis (Principal Component Analysis) and reliability tests were conducted to confirm the scales (i.e., the PBG scale and the judgment scale) had measured the variables properly. Second, after the pilot test, one-way ANOVA was used to compare the PBG levels of different products for determining the high, medium, and low PBG products. This is because the PBG in the pilot test was measured as a continuous variable on a Likert scale, and the brands represented eight different categories. Third, one-way ANOVA was used for testing the influence of gender categories, and OLS regression was used for testing the influence of age. At last, ANCOVA was conducted to model the main effects and the interaction. This is because firstly, Fandom was controlled as a covariate; secondly, in the experiment, PBG levels and Cultural settings are categorial variables (i.e., high, medium, low PBG level, and Foreign and Local settings), and Audience's judgment was measured on a Likert scale as the continuous variable. Additionally, assumptions for different analyses were also tested. All the quantitative analyses and results were performed and provided in SPSS. The results were exhibited respectively in different sections in the Results chapter.

3.2 Operationalization

The PBG level of a product was measured by a scale adapted from Steenkamp, Batra, and Alden (2003). All items were measured on five-point Likert scales (1 = strongly disagree, 5 = strongly agree). Three items were in the scale: (1) To me, this is a global brand/To me, this is a local brand; (2) I don't think consumers overseas buy this brand/I do think consumers overseas buy this brand; (3) This brand is sold only in China/This brand is sold all over the world. The measuring was conducted in a pilot test to select three representative products in high, medium, and low PBG, respectively, as a part of the manipulation.

The local/foreign settings of a movie will be measured as local or foreign. Was operationalized as the same excerpt of a movie script with Chinese or English names of the characters. By fully matching the three PBG levels with the two movie settings, cultural congruence of product placement was operationalized (see Appendix B).

The audience's judgment toward the product placement was measured by a two-dimensioned scale from d'Astous and Seguin (1999). The first dimension is the ethical judgment measured by seven items concerning appropriateness, morality, acceptability, taste, relevance, honesty, and frankness (Cronbach's α = .88). The second dimension is the evaluative judgment measured by five items concerning dynamism, originality, agreeableness, amusement, and pleasantness (Cronbach's α = .85). Each item was measured on a five-point Likert scale (one = strongly disagree, five = strongly agree).

3.3 Pilot test

To manifest the stimuli, the study chose mobile phone products as the subject of the manipulation as they were necessary and ethically neutral products in life. It was important as product placement of ethically challenged products, such as alcoholic drinks and cigarettes may affect people's acceptance of the placement (Brennan & Babin, 2004; Gupta and Gould, 1997; Nebenzahl and Secunda, 1993). A pilot test was conducted on eight common Chinese mobile phone brands to choose the most appropriate brands of high, medium, and low PBG. Eight Chinese mobile phone brands were measured on their PBG level by a three-item scale: 1) To me, this is a global brand; 2) I do think consumers overseas buy this brand; and 3) This

brand is sold all over the world, on a five-point Likert score (five = Strongly agree, one = Strongly disagree). The results (in the next chapter) suggest that Huawei Xiaomi, and Honor are to be selected as the high, medium, and low PBG products, respectively.

3.4 Experiment procedure

A survey (Statista, 2018) showed that in the age mapping of China's cinema audience, the age from 19 to 34 took up the significant percentage of 77.8 (each 5-year chuck is above 20%). Therefore, the study's sampling aimed to reach near to the age distribution. Additionally, the female audience with a percentage of 59.2% and the male audience with a percentage of 40.8% build up the gender structure of the Chinese cinema market (Sohu, 2017). However, the gender structure is affected by the story, or the theme of the movies released that year, as another news report shows that the male audience has an increase in numbers in 2019 because more sci-fi and action-themed movies were on (36Kr, 2019). In this sense, the sampling aimed for an even distribution of gender (male and female) of cinema audiences in China.

For gathering an adequate number of respondents in an online experiment, the study applied a combination of convenience and snowball sampling. The reason for applying this sampling method is that convenience sampling compensates for the limitation of time and resources (Etikan, 2016). Another reason is that snowball sampling helps reach a more targeted population (Babbie, 2014).

To adequately disseminate the online experimental questionnaire, the study used the most popular social media network in China, WeChat. According to industry data reports (DyData, 2020), WeChat has nearly 59% of users who are aged under 30 which has an almost even distribution of male and female users. The respondents reached by WeChat are possibly also cinema audiences. Moreover, asking contacts aged between 19 and 34 to forward the questionnaire link or QR code to their friends in WeChat raises the chance of an overlapping of the respondents and the targeted population.

Two channels on WeChat were eventually used to disseminate the questionnaires. The first one was the social networking platform of WeChat. Questionnaire links were posted in

the researcher's social feed of friends' updates and several group-chats every day at GMT +8 21:00 in a week as between 20:00 to 1:00 are the time when users read WeChat feed the most (Graziani, 2016). Besides, contacts were kindly asked to voluntarily forward the experiment link to their contacts, thus the snowballing.

Due to the limited contacts and the relatively low efficiency of voluntary participation, the second channel on WeChat, 腾讯问卷 (Tencent survey; Tencent is the parent company of WeChat) was also adopted to reach out to more respondents. This platform pushes notifications of surveys to users who consented to receive feeds of questionnaires. The participants of validated questionnaires by the researcher will receive 30 Euro cents (the price of a bottle of Coca Cola in China) as monetary incentives. The researcher validation mechanism to some extent ensured the quality of the answers. Moreover, the manipulation checks also added credits to this approach.

The questionnaires via the social feed channel were developed in Qualtrics, as it is mobile friendly and provides various ways of distribution (e.g., anonymous link and QR code). Those via the Tencent survey channel were developed in its own questionnaire designer. But the contents of the two versions of questionnaires were exactly identical, except for the randomizer mechanism. This was elaborated more in details in the part relating to the randomization.

The participants firstly read the consent form. In the consent form, the participants were told to fill out a survey on their perceptions of a short movie script excerpt. After the participants have given their consent, they would have their demographic information recorded by answering two questions. The first question was about gender. Participants would choose from female, male, and if any case, enjoy the flexibility of selecting of other genders. The second question asked for the year of birth, instead of asking for the age directly. This alternation considered the convention of not asking strangers' age directly in the Chinese society. The participant would feel more comfortable to provide genuine information of their year of birth and therefor to possibly reduce the chances of their giving false ages.

Then, the study implemented a short script excerpt from the movie *The Secret Life of Walter Mitty* and adapted it into the experiment context as stimuli. The use of scripts

considered the feasibility of manipulation implementation. The excerpt was selected because the scene of it was mobile phone involved and would not indicate any movie genre. Moreover, the scene would easily fit either in Chinese or foreign societies because the audiences will pretty much perceive the cultural connotations of the scene according to the given geographical cues in the scripts. The excerpt described an editor went out of his office, boarded a plane to meet a photographer, and read an e-mail from the photographer on his mobile phone before take-off.

The excerpt was revised into six versions to fit the 3×2 framework by assigning Huawei, Xiaomi, and Honor mobile phone products to them in both foreign and local settings. To mimic the product placement in movies, close-ups of the phone brands were indicated with brands. Foreign and local settings were realized by designating Chinese names or Dutch names to the characters and specifying a Chinese city or a Dutch city in the scripts of where the scene happened. Every other word remained the same across the six versions of excerpts. As a result of a full matching of the three brands and the two movie settings, six manipulation groups were formed in the experiment design. A camera brand was added in the scene as a part of the deception. The six versions of excerpts were shown in the Annex section.

A randomizer assigned the participants to one of the six groups. To assure the randomization work appropriately, two different methods were applied according to the questionnaire designing systems. The randomization in Qualtrics was realized by embedded data. To be more specific, each participant was embedded with a number randomly from 1, 2, 3, 4, 5, and 6 which represented different treatment groups. Therefore, the different manipulations received by the participant were recorded. While the randomization in Tencent survey was realized by the built-in coding system. It only realized random displaying but without recording. For this reason, an additional check box indicating that the participant finished reading was added right below the script with an embedded value of 1, 2, 3, 4, 5, or 6. In this way, the manipulation that the participants have received was respectively marked and recorded.

After the treatment section, manipulation check questions were served. These questions aimed to find out if the participants correctly noticed the foreign or local setting of the movie

and the mobile phone brand they had been treated with (i.e., "Do you think the scene was happening in China or in some other countries?" and "Which brand of the protagonist's cell phone did you remember?"). Then, to test the internal validity of the experiment, by measuring their fandom of the brands were measured as a control variable because product familiarity is also a prominent factor in product placement to generate audience outcomes (Balasubramanian et al., 2006). Besides these three questions, four filler questions were added in the section. Among those, the questions about the observed product placement of the mobile phones and those about the camera as deception were arranged symmetrically to better cover up the real research purpose.

In the next section, the two dependent variables were measured by the participants' rating of twelve statements upon if the branded mobile phones were product placements. Similarly, symmetrical filler questions/statements about the camera brand were following. Lastly, a purpose check was added to rule out the data from the participants who had figured out the purpose of the experiment.

3.5 Validity and reliability

This study tried to increase validity and reliability in many ways. Concerning the internal validity which refers to the confidence of a causal relationship between the independent and dependent variables, this research largely prevented the threats in the experimental design (Neuman, 2014; Vargas et al., 2017). First, a randomizer was implemented before the stimuli to ensure the equivalence between the experimental groups. Second, in case of the maturation effect occurring, the online questionnaire was designed to be as short as possible. The reading time of the stimulus materials were kept within 30 seconds by being pretested by several colleagues. Filler questions which were added in between the measurements also partially aimed to keep the questionnaire interesting. Third, the online experimental tools were designed to record the participants' progress in completing the questionnaire. Accordingly, those who failed to participate through the questionnaire were cancelled out in the stage of data preparation to eliminate the effect of experimental mortality.

Then, the implementation of online questionnaires prevented the communication

between the participants to reduce the diffusion of treatment. The questionnaires which were disseminated by Tencent Survey perfectly prevented it from happening because of the random selection amongst over a million WeChat users. However, during the snowballing process via the researcher's social media platform, it could not be considered as one hundred percent prevention, even though the participants were told not to discuss the content of the questionnaire with other participants. Next, the demand of characteristics was considered. At the end of the questionnaire, a purpose checking question was added to test whether the participants had figured out the actual purpose of the experiment. The data with the correct answer to the question were deleted during the data preparation. Additional to the purpose check, the experiment was designed with a cover story and filler questions of an aim to inquire of their perceptions of the excerpt of the movie scripts. Finally, manipulation checks were added after the treatment. The participants were asked which brand appeared in the manipulation material and their perceptions of whether the scene was set in a foreign or local Chinese environment.

In regard to the external validity which relates to the generalization of the results, this study was designed carefully for sampling, treatment, and measurement (Neuman, 2014). First, to achieve the populational generalization, this research disseminated the questionnaires through both social feeds of the researcher and a third-party survey platform. The survey platform randomly pushed the questionnaire to WeChat users across China. As such, random sample could to some extent be considered as achieved. Second, the naturalistic generalization was considered. The participants were asked if the story would happen in real life and 79.3% percent of the sample ($N = 343$) perceived it as real and natural. Therefore, the mundane realism could be seen as met. However, even though the cover story prevented the participants from knowing the experiment, they were still aware of being a part of a study. In this case, interesting filler questions were added to distract them from thinking of being studied. Therefore, the researcher believed that the reactivity against the study could be mitigated. Finally, the scales of variables were tested for reliability and was ensured that the Conbach's α of all the scales were above .80 (see in the results chapter). Moreover, the confounding variable was controlled and measured during the experiment. And ANCOVA was

used in hypotheses test to reduce the influence of the covariate.

4   Results

This chapter exhibits all the analytical results in the study. First, the sample demographics were described. Second, the results of factor analysis and the reliability test of the scales were displayed. The scales include the PBG scale and the audience's judgment scale. Third, the results of the pilot test reveal how the three representative brands of high, medium, and low PBG level were selected. Next, the influence of the demographic information on the dependent variables were tested. The results suggest that the influence either are insignificant or could be neglected due to the small effect size. At last, the hypotheses were tested on control, and they were either rejected or supported according to the results.

4.1 Sample

A total of 523 questionnaires were successfully retrieved, 103 from WeChat social feeds and 420 from WeChat Tencent survey. After ruling out the invalid responses due to their failure in manipulation check, 349 of the responses entered the analysis. Additionally, the bar of at least 30 participants in each manipulation group was reached.

The demographic information of the sample was analyzed. Amongst the participants, 46.0% are male, and 54.0% are female. The average age of the participants was 23.01 (SD = 6.47). The accumulative percentage of participants under the age of 30 was 91.7% which was unexpected. Besides, the mode of age was 21.00 and the median 21.00. This age span was largely different from the pilot test.

4.2 Factorial analysis and reliability test of the scales

For the evaluation of the tests and scales, the principal component (PCA) analysis and reliability test were conducted. Firstly, the PBG scale in the pilot test was tested. Because the pilot test only included 31 (fewer than 150) participants, the reliability test was conducted instead of the PCA. The results show that the scale is reliable on measuring the PBG of brands, Cronbach's α = .80.

Secondly, the scale of the audience's judgment on the product placement was tested. It was checked beforehand that the assumptions for the factor analysis were met. First, the scale consists of two factors, the Ethical judgment and the Evaluative judgment. For each factor, it has more than three items (i.e., the Ethical judgment having seven items, and the Evaluative judgment having five). Second, all the items were measured by a five-point Likert scale hence the continuous measurement. Third, the online experiment incorporates 343 participants and thus the sample size is above 150.

Then the twelve items of the audience's judgment on the product placement were entered in the PCA with Oblimin rotation based on Eigenvalue (> 1.00), $KMO = .91$, χ^2 ($N = 213, 66$) = 1338.66, $p < .001$. Additionally, the correlations between each item are all above .30 (Table 4.2). Therefore, the posteriori of the PCA is satisfied. The resultant model explained 51.47% of the variance in the audience's attitude. Factor loadings of individual items onto the two dimensions found are presented in Table 4.1. The two dimensions were in line with the pre-existed scale from d'Astous and Seguin (1999). The results also prove the scale reliable with the Cronbach's $\alpha = .88$ for the Ethical judgment factor and the Cronbach's $\alpha = .85$ for the Evaluative judgment factor.

Table 4.1 Loadings of items and reliability of scales

Item	Ethical Judgment	Evaluative Judgment
ETH_1 It is an appropriate product placement.	.95	
ETH_2 It is an acceptable product placement.	.89	
ETH_3 It is a moral product placement.	.76	
ETH_4 It is a product placement of good taste.	.72	
ETH_5 It is a frank product placement, not intending to be hidden.	.58	

ETH_6 It is an honest product placement to real life.	.55	
ETH_7 It is a product placement relevant to the movie scene.	.44	
EVL_1The product placement is an original idea, rather than a common one.		.94
EVL_2 The product placement is an amusing one, rather than being boring.		.67
EVL_3 The product placement is a dynamic one, rather than being static.		.59
EVL_4 The product placement is a pleasant one, rather than being shocking.		.59
EVL_5 The product placement is an agreeable one, rather than being irritating.		.58
R^2	32.24	19.23
Cronbach's α	.88	.85
Eigenvalue	5.99	1.10

Note: Items were translated into Chinese when conducting the experiment

Table 4.2. Correlations of the items in the judgment scale

	ET H_1	ET H_2	ET H_3	ET H_4	ET H_5	ET H_6	ET H_7	EV L_1	EV L_2	EV L_3	EV L_4	EV L_5
ETH_1	.00											
ETH_2	.48	1.00										
ETH_3	.56	.57	1.00									
ETH_4	.60	.51	.60	1.00								
ETH_5	.38	.41	.49	.55	1.00							
ETH_6	.43	.46	.49	.50	.60	1.00						
ETH_7	.30	.39	.38	.35	.31	.35	1.00					
EVL_1								1.00				
EVL_2								.41	1.00			
EVL_3								.45	.42	1.00		
EVL_4								.39	.59	.58	1.00	
EVL_5								.45	.38	.67	.53	1.00

4.3 Pilot test

A total of 31 participants responded the pilot test and among them, 51.6% were female, 45.2% were male, and 3.2% were of other genders. The age spanned from a minimum of 23

to a maximum of 39 with a mean of 28.87 (SD = 3.32). The result showed that both the gender and age were normally distributed. The PBG scores of the eight brands are exhibited in Table 4.3. Additionally, because all the brands were scored by the same 31 participants in the pilot test, the Levene's F-test was not reported. Then the brands Huawei (M = 4.27, SD = .76) and Honor (M = 2.42, SD = .86) were selected to represent the high and low PBG level respectively as they are the highest and the lowest in the scores; Xiaomi was selected to represent the medium PBG level as (M = 3.41, SD = 1.24) it has the most similar score to the whole sample mean (M = 3.17, SD = 1.25).

At last, a one-way ANOVA was conducted to investigate whether Huawei, Xiaomi, and Honor are different on the PBG scores. The results revealed that the three levels significantly differ from each other. In the Tukey post-hoc multiple comparison test, the difference between Huawei (i.e. the high PBG level) and Xiaomi (i.e. the medium PBG level) is significant ($M_{difference}$ = .86, p = .002), and the difference between Xiaomi and Honor (i.e. the low PBG level) is also significant ($M_{difference}$ = .99, p < .001). Therefore, the PBG levels were distinguishable to the participants and could be used as stimuli.

Table 4.3 ANOVA results of mean PBG scores (N = 31)

Brand	M	SD
Huawei[a]	4.27	.76
Lenovo	3.70	1.21
Oneplus	3.43	1.41
Xiaomi[b]	3.41	1.24
Oppo	2.83	1.21
Vivo	2.71	1.13
ZTE	2.57	.95
Honor[c]	2.42	.86
Total	3.17	1.25

Note: [a]Selected as High PBG; [b]Selected as Medium PGB; [c]Selected as Low PBG

4.4 Demographical influences

The effect of gender on Ethical judgment and Evaluative judgment on the product placement were tested by ANOVA. The results show that gender has a significant influence on the variance of Ethical judgment on the product placement, but the effective size is quite limited, $F_{(2, 340)} = 3.23$, $p = .041$, $\eta^2 = .02$, and the effect of gender on the variance of Evaluative judgment on the product placement is also significant but with rather small effect size, $F = _{(2, 340)}$, $p = .049$, $\eta^2 = .02$. Even though the influences are significant, they could be not considered as key factors because of the low effect size.

Furthermore, the effect of age was also tested in the linear regression model. The results suggest that both Ethical judgment, $F_{(1, 341)} = .77$, $p = .382$, and Evaluative judgment, $F_{(1, 341)} = .00$, $p = .954$, on the product placement are not significantly affected by age distribution.

4.5 Hypotheses test

Because the fandom towards the brands could possibly be a covariate, an ANCOVA was conducted in the study. In order to perform the ANCOVA, data preparation and several analyses was made to check if the assumptions of ANOCVA were satisfied. Firstly, as ANCOVA is sensitive to the outlier cases, they were left out from the analysis process. Then, the assumptions were tested. The first assumption is independent observations. This was assured in the design of the experiment. In the current study, each experimental participant was assigned to one of the six treatment groups only once by the randomizer and independently completed the online questionnaire on their own mobile devices. In this case, it can be considered that the participants did not interact with or influence each other. Thus, the independent observation can be considered as achieved.

The second assumption is normality. This assumption requires normal distribution.in each subpopulation if the sample is smaller than twenty. Nonetheless, the sample size ($N = 343$) in the experiment is big enough to skip this assumption. The third assumption is the homogeneity of variance. The results of Levene's F-tests suggest equal variances in population. In the test with the Ethical judgment as the dependent variable, equal variance in

population is supported, $F (5, 337) = .75$, $p = .588$. In the test with the Evaluative judgment as the dependent variable, equal variance in population is also supported, $F (5, 337) = 1.49$, $p = .191$. Thus, the homogeneity in variance is achieved.

The fourth assumption is the linear relation between the covariate and the dependent variables. As both the covariate and the dependent variables were measured by Likert scales, OLS regression analysis were chosen over the scatterplot. The correlation between the covariate and the dependent variables were investigated in every treatment groups. For Ethical judgment, the linearity is violated in Group 1 (i.e., High PBG level vs. Foreign settings), $F (1, 55) = 1.48$, $p = .188$, and in Group 6 (i.e., Low PBG level vs. Local settings), $F (1, 60) = 1.48$, $p = .229$. Nonetheless, In Group 2 (i.e., Medium PBG level vs. Foreign settings), $F (1, 48) = 5.48$, $p = .023$, Group 3 (i.e., Low PBG level vs. Foreign settings), $F (1, 50) = 5.06$, $p = .029$, Group 4 (i.e., High PBG level vs. Local settings), $F (1, 69) = 5.23$, $p = .025$, and Group 5 (i.e., Medium PBG level vs. Local settings), $F (1, 49) = 6.67$, $p = .013$, the linearity was all supported.

At the same time, for Evaluative judgment, the linearity is violated in Group 1, $F (1, 55) = 1.05$, $p = .310$, Group 3, $F (1, 50) = 2.97$, $p = .091$, Group 5, $F (1, 49) = 1.54$, $p = .220$, and Group 6, $F (1, 6) = 1.66$, $p = .203$. In Group 2, $F (1, 48) = 8.59$, $p = .005$ and Group 4, $F (1, 69) = 11.20$, $p = .001$, the linearity was supported. Therefore, the assumption of linearity between the covariate and the dependent variables in each treatment group was partially met. In this circumstance, the ANCOVA is still able to be conducted but it has to be pointed out that the power of variance reduction might be reduced.

The final assumption is the homogeneity of regression slopes. The results in Table 4.4 show that the slopes are not significantly different from each other. Accordingly, this assumption is met. Therefore, Fandom could be considered as a covariate and would be controlled in the ANCOVA analysis.

Table 4.4 Test for homogeneity of regression slopes

Interactions	*p*
PBG * Movie settings	.778
PBG * Fandom	.726
Movie settings * Fandom	.893
PBG * Movie settings * Fandom	.660

A two-way ANCOVA was conducted to determine a significant difference between the PBG levels of a product, as well as the Cultural settings of the movie, on the Ethical judgment on the product placement controlling for the Fandom toward the product. The means of Ethical judgment before and after controlling the covariate are exhibited in Table 4.5. The results show that there is no significant effect of PBG levels on Ethical Judgment after controlling for Fandom, $F(2, 336) = 1.76$, $p = .174$, partial $\eta^2 = .010$. Therefore, H1a: High PBG level of the product has a more positive effect on the ethical judgment on the product placement than medium PGB level, is rejected. And at the same time, H1b: Medium PBG level of the product has a more positive effect on the ethical judgment on the product placement than low PBG level, is also rejected. In other words, between High, Medium, and Low PGB levels products, the Ethical Judgment on the product placement does not differ significantly on controlling Fandom.

Furthermore, Cultural settings also have an insignificant main effect on Ethical Judgment of the product placement, $F(1, 336) = .80$, $p = .373$, partial $\eta^2 = .002$. Therefore, H3a: The ethical judgment of Chinese audiences on the product placement do not vary on local or global movie settings of it, is supported.

At last, no significance is found in the interaction effect of PBG levels and Cultural settings on Ethical Judgment, $F(2, 336) = 1.93$, $p = .147$, partial $\eta^2 = .011$. The interaction plot is shown in Figure 4.1. Therefore, H4a: The effect of the PBG levels of a product on the ethical judgment of the product placement differs between the cultural settings of the movie, is rejected.

Table 4.5 Means, Adjusted Means, Standard Deviations and Standard Errors for Ethical

Judgment on independent variables ($N = 343$)

IV	Ethical Judgment			
	M	*SD*	*M_{adj}*	*SE*
Foreign setting	3.60	.73	3.59	.06
Local setting	3.64	.72	3.66	.05
High PBG	3.60	.74	3.53	.07
Medium PBG	3.70	.71	3.70	.07
Low PBG	3.57	.72	3.65	.07

Note: No significance of the variance of means and the adjusted means were found.

Figure 4.1 Estimated marginal means of Ethical Judgment ($N = 343$)
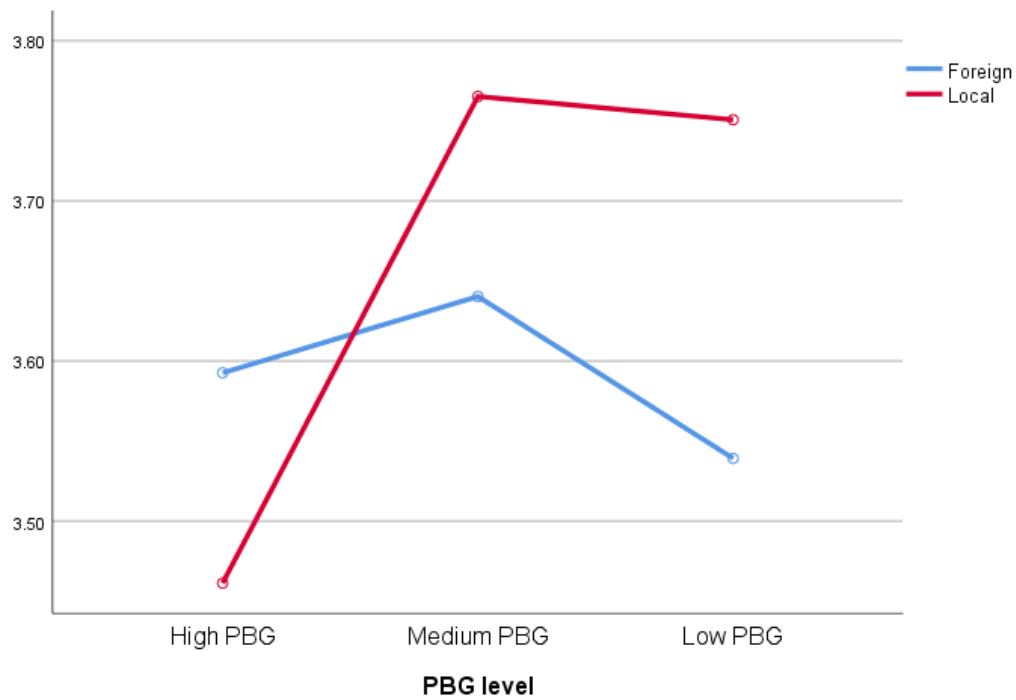
Covariates appearing in the model are evaluated at the following values: Fandom = 3.6793

In the analytical results of Evaluative judgment of the product placement on controlling

Fandom, the two-way ANCOVA revealed a significant main effect for PBG levels on it, F (2,

336) = 4.56, p = .011, partial η^2 = .026. The means of Evaluative judgment before and after

the controlling of the covariate are displayed in Table 4.6. Pairwise, LSD post-hoc comparisons revealed that the Medium PBG level product significantly received higher Evaluative judgment of the placement than the Low PBG level product, $M_{difference}$ = .27, p = .011. Therefore, H2b: Medium PBG level of the product has a more positive effect on the evaluative judgment on the product placement than low PBG level, is supported. However, the Evaluative judgment on High PBG level product is significantly lower than the Medium PBG level product, $M_{difference}$ = -.22, p = .030. Thus, H2a: High PBG level of the product has a more positive effect on the evaluative judgment on the product placement than medium PGB level, is rejected. And at the same time, it is interesting that the High PBG level product does not significantly differ on the Evaluative Judgment from the Low PBG level product, $M_{difference}$ = .05, p = .658.

Cultural settings were found to have no significant main effect on Evaluative Judgment of the product placement, $F(1, 336)$ = .03, p = .871, partial η^2 = .006. As a result, Evaluative Judgment does not vary on Cultural settings of the movie on controlling Fandom. Therefore, H3b: The evaluative judgment of Chinese audiences on the product placement do not vary on local or global movie settings of it, is supported. The interaction effect of PBG levels and Cultural settings on Evaluative Judgment of the product is also not significant, $F(2, 336)$ = .58, p = .357, partial η^2 = .006. Therefore, H4b: The effect of the PBG levels of a product on the evaluative judgment of the product placement differs between the cultural settings of the movie, is rejected. The interaction plot is exhibited in Figure 4.2.

Table 4.6 Means, Adjusted Means, Standard Deviations and Standard Errors for Evaluative Judgment on independent variables ($N = 343$)

IV	Evaluative Judgment			
	M	*SD*	*M_{adj}*	*SE*
Foreign setting	3.58	.80	3.59	.06
Local setting	3.55	.75	3.57	.06
High PBG	3.52	.81	3.52	.07
Medium PBG	3.74	.69	3.74	.07
Low PBG	3.47	.77	3.47	.07

Note: The significance of variance is reported in the text.

Figure 4.2 Estimated marginal means of Ethical Judgment ($N = 343$)
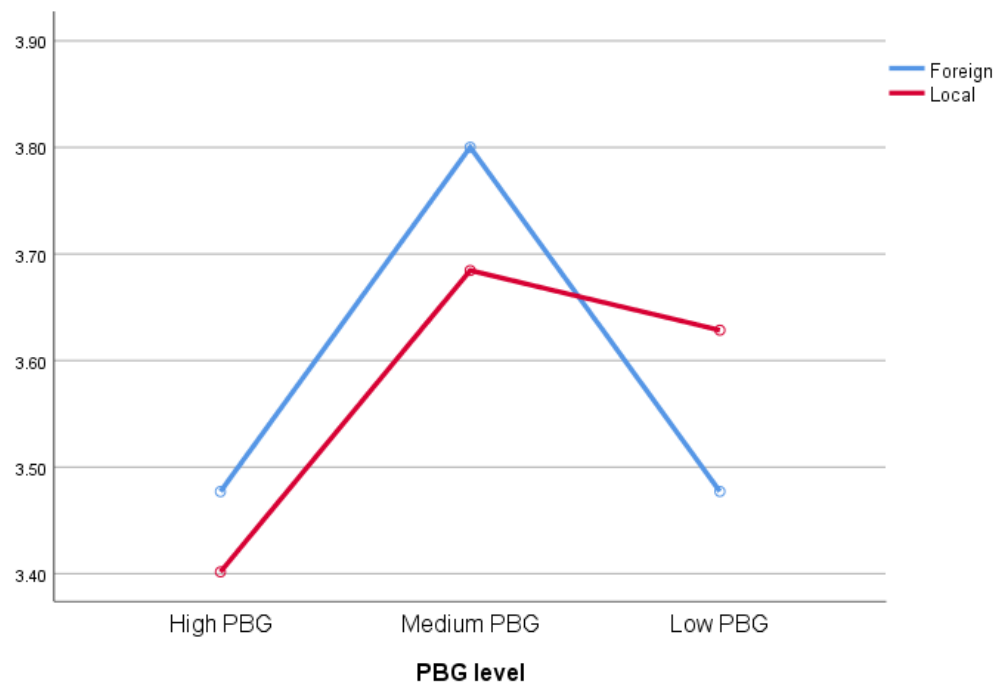
Covariates appearing in the model are evaluated at the following values: Fandom = 3.6793

5 Discussion

5.1 Conclusion

The results suggest that for both the Chinese audiences' ethical and evaluative judgment on the product placement of Chinese brands are not influenced by the cultural settings of a movie. One implication for the movie makers and also the brand operators is that they may enjoy more opportunities to cooperate since the cultural settings of a movie do not distinguish good or bad product placement for Chinese movie audiences. In other words, on the one hand, when a movie is going into the Chinese cinema market, whether it tells a story in China or in other countries, Chinese brands will have the possibility to be placed in the movie, without the concerns of cultural settings affecting ethical or evaluative responses to the placement form Chinese movie audiences. On the other hand, Chinese brands do not necessarily to be placed in foreign or Western movie settings to receive better audience responses of the placement. Local Chinese movies can also be considered just as the Hollywood makes. This supports the extension of Zhou and Belk's (2004) qualitative findings from advertising to product placement in movies in the Chinese market. Chinese audiences do not prefer global appeals or settings of a product over localized environment.

The results suggest that for Chinese movie audiences, they do not judge product placement ethically according to the PBG level of the brand. The results also suggest that for the Chinese audiences' evaluative judgment on the product placement of Chinese brands, products of medium PBG level outperform those of high and low PBG levels. The interesting part of the results is that high PBG level products are not different from low PBG level products on the evaluative judgment on their product placements. The medium PBG products engender higher evaluative judgment on the product placement but with a small effect size (partial $\eta^2 = 0.026$). Therefore, even though the product placement of medium PBG level products receive higher evaluative judgment from the Chinese audiences, the strength of the relationship between PBG levels of products and the evaluative judgment index is limited. One main practical implication is that movie makers or the production company do not necessarily have to choose medium PBG level products to receive better evaluations on a product placement. They may pay more attention to other factors in the product placement for

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better audience outcomes.

Furthermore, the variance of the ethical judgment on the product placement on PBG levels does not differ on the cultural settings of the movie. Since no interaction effect was found between PBG levels of the products and the cultural settings of the placement (local and foreign to China) the most important finding of the present study is that Chinese brands of high, medium, or low PBG levels will benefit equally of the cultural settings. From a managerial point of view, low PBG brands do not need to limit themselves in local Chinese movies to achieve the same audiences' judgment. They can also aim for Hollywood blockbusters to reach to more movie goers in China. Moreover, in the Chinese market, movie producers may have more choices of cooperating brands in product placement, regardless of the localness or globalness of the brand and the cultural settings of the movie. Michael Bay's Transformers series mentioned in the introduction chapter is actually a good example. Even though the media reactions were not that friendly when a local Chinese brand appeared in a typical American environment, the audiences might have thought in another way.

This finding provides an exception to the statement of Williams et al. (2011) that sponsor-program incongruency may lead the product placement to lower credibility. It also supports that the congruency in product placement is a complex concept. Different focuses of researchers on multiple dimensions of congruency may generate divergent or contrasting results. And this field is still to be explored and developed.

Besides, this finding is not supporting some studies of cultural incongruence and audiences' attitude to the advertisement in the advertising field (Ozsomer, 2021; Zhou et al., 2015). In their studies, cultural incongruence between the product and the appeal of the advertisement negatively influences the audiences' attitude towards the advertising. Nonetheless, in the current study, when the advertising environment was transferred from explicit advertising to subliminal product placement, the effect is not supported. This contradiction just illustrates the necessity of studying the cultural congruence in the field of product placement. It also suggests that product placement is possibly more potential in mitigating the negative influence caused by cultural incongruency.

5.2 Limitations

Several limitations should be stressed for future research. First, the movie scripts excerpts may not perfectly realize the realistic scenario of product placement. The subjects may react differently to verbal and audiovisual stimuli due to the variance of information processing modality. Accordingly, the judgment which are made on the product placement could be affected. Therefore, further studies may employ video clips for higher validity.

Second, this study only included one product type in product placement. People may question whether the same results would occur on other product types because different levels of familiarity with products and their placement may lead to divergent outcomes. For example, mobile phones (as in this study), beverages, and automobiles are frequently placed in movies while banks and insurance may not be. Audiences possibly react more defensively to the uncommon appearance of financial products in product placement. At the same time, this also applies to brands. When one brand repeatedly occurs in the product placements in many movies, it may either be annoying or desensitizing. Future studies could use multiple types and brands of products to test if the results will differ.

Third, even though the study carefully controlled for the confounding variables such as the fandom towards the brands and the plot fitting, the influence of other factors might not be completely ruled out. For example, the reputation of the brand was not considered. It might be the reason of the medium PBG level product outperforming the high PBG level product in the evaluative judgment scores. Further studies may take brand reputation into account to investigate whether it will influence the audience outcomes on the product placement.

At last, the study which employed a quantitative method can only explain the variance of the audiences' judgment on the product placement on the cultural congruency. However, it could not provide in-depth interpretations of why the audiences would made such judgment. Therefore, qualitative research on this subject is strongly suggested to investigate how the audiences judge a culturally incongruent product placement.

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%9A%E7%94%A8%E6%88%B7%E5%8F%91%E5%B1%95%E6%8A%A5%E5%91

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Appendix A. Experimental Questionnaire

CONSENT REQUEST FOR PARTICIPATING IN A SURVEY

FOR QUESTIONS ABOUT THE STUDY, CONTACT:

Zihao Jin, 3063ED, Rotterdam, 534498zj@eur.nl, +31 (0) 6 33 47 19 65

DESCRIPTION

You are invited to participate in a short survey on your perceptions of an excerpt from a movie's scripts. The data collected will be used in my Master Thesis in Erasmus University Rotterdam. In this survey, you will be asked about some of your individual demographic information, as well as your opinions on the excerpt.

Your acceptance to participate in this study means that you accept to participate in the survey. In general terms,

- the questions of the survey will be related to your demographic information and opinions of the provided movie script excerpt

- your identity will be by no means revealed

- my observations will focus on your opinions

For the integrity of the data, all the questions request for an answer. However, if you do not want to answer a particular question, you may stop participating at any point.

RISKS AND BENEFITS

A. As far as I can tell, there are no risks associated with participating in this research. Your name will not be mentioned in the experiment as you submit it anonymously. Yet, you are free to decide whether you would like to give consent or not. Measures will be taken in case of identification by only mentioning your year of birth, gender, and the country you live in.

B. There will be no risks of exposing your social relations.

C. Data collected will be used exclusively for academic work, such as further research, academic meetings, and publications.

TIME INVOLVEMENT

Your participation in this study will take around 7 minutes. But you can take as much time as you can.

PAYMENTS

Valid questionnaires will get ￥2.5 through Tencent Survey platform.

PARTICIPANT'S RIGHTS

If you have decided to accept to participate in this project, please understand your participation is voluntary and you have the right to withdraw your consent or discontinue participation at any time without any consequence. You have the right to refuse to answer particular questions by seizing the participation. Your individual privacy will be maintained in all published and written data resulting from the study.

CONTACTS AND QUESTIONS

If you have questions about your rights as a study participant, or are dissatisfied at any time with any aspect of this study, you may contact –anonymously, if you wish— Petra Tenbült, ESHCC via tenbult@eshcc.eur.nl

Q1 I will participate in the survey.

o   Yes

o   No

Q2 I am ...

o   a female.   (1)

o   a male.   (2)

o   of other genders.   (3)

Q3 I was born in... (year of 4 digits)

_____

In the next page, you will read an excerpt from a movie script. The script scerpt is about 150 words and will take approximately 0.5 minutes to read. Please read it carefully as you are not able to read it after the questions are shown. Then, please answer a couple of questions related to it afterwards.

(For stimuli script excerpts, see in Appendix B)

The following questions do not have correct answers. Every answer you give will be completely based on your perceptions of the excerpt and own life experience.

Q4 Where do you think the scene is happening?

o   In a foreign country other than China   (1)

o   In China   (2)

Q5 Do you think it is an appropriate scene that the protagonist is checking messages with his mobile phone before the plane takes off?

o   No. It's definitely not happening in the real life.   (1)

o   I don't know.   (2)

o   Yes. It's just a normal life scene.   (3)

Q6 Are you aware of the brand of the mobile phone?

o   Yes. It is Huawei. (1)

o   Yes. It is Honor. (2)

o   Yes. It is Apple. (3)

o   Yes. It is Samsung. (4)

o   No. (5)

Q7 Are you a fan of the mobile phone brand?

o   Yes. It's my favorite. (1)

o   I like it but a fan is too much. (2)

o   It's just a brand. (3)

o   Can't say I like it. (4)

o   I don't like it and I don't need a decent reason. (5)

Q8 Are you aware of the brand of the camera? (Deceptive questions are in red for reference.

They are no different to measured questions in the survey.)

o   Yes. It is Canon. (1)

o   Yes. It is Panasonic. (2)

o   Yes. It is Nikon. (3)

o   Yes. It is Sony. (4)

o   No. (5)

Q9 Are you a fan of the camera brand?

o   Yes. It's my favorite. (1)

o   I like it but a fan is too much. (2)

o   It's just a brand. (3)

o   Can't say I like it. (4)

o   I don't like it and I don't need a decent reason. (5)

Q10 What do you think of the protagonist according to the scene and your imagination?

o   He's losing his job. Even if he gets the photo, he can't be saved.   (1)

o   He's losing his job. Perhaps he doesn't work hard enough.   (2)

o   He's losing his job. But who care's about a job?   (3)

o   He's losing his job. But perhaps it is not his fault.   (4)

o   He's losing his job. But the photo will eventually save him.   (5)

Q11 What do you think of the photographer according to the scene and your imagination?

o   She got her best shot. But I don't think it will be good enough to save the protagonist's career.   (1)

o   She got her best shot. But I think she exaggerated it.   (2)

o   She got her best shot. But who cares about whether it is really a good one?   (3)

o   She got her best shot. Perhaps it is really an astounding one.   (4)

o   She got her best shot. Perhaps the photo will eventually save the protagonist's career. (5)

In the following, you will read several statements. Please rate your level of agreement on them.

Q12 If the close-up on the mobile phone is a sponsored product placement of the brand, how do you think of it?

1. Strongly disagree 2. Somewhat disagree 3. Neither agree nor disagree 4. Somewhat agree 5. Strongly agree

1. It is an appropriate product placement. 1   2   3   4   5

2.   It is a moral product placement. 1   2   3   4   5

3.   It is an acceptable product placement. 1   2   3   4   5

4.   It is a product placement of good taste. 1   2   3   4   5

5.   It is a product placement relevant to the movie scene. 1   2   3   4   5

6.   It is an honest product placement to real life. 1   2   3   4   5

7.   It is a frank product placement, not intending to be hidden. 1   2   3   4   5

8. The product placement is a dynamic one, rather than being static. 1   2   3   4   5

9. The product placement is an original idea, rather than a common one. 1 2   3   4   5

10. The product placement is an agreeable one, rather than being irritating. 1   2   3   4
    5

11. The product placement is an amusing one, rather than being boring. 1   2   3   4   5

12. The product placement is a pleasant one, rather than being shocking. 1   2   3   4   5

Q13 If the photographer's message is a sponsored product placement of the brand, how do
you think of it?

1. Strongly disagree 2. Somewhat disagree 3. Neither agree nor disagree 4. Somewhat agree

5. Strongly agree

1. It is an appropriate product placement. 1   2   3   4   5

2. It is a moral product placement. 1   2   3   4   5

3. It is an acceptable product placement. 1   2   3   4   5

4. It is a product placement of good taste. 1   2   3   4   5

5. It is a product placement relevant to the movie scene. 1   2   3   4   5

6. It is an honest product placement to real life. 1 2   3   4   5

7. It is a frank product placement, not intending to be hidden. 1   2   3   4   5

8. The product placement is a dynamic one, rather than being static. 1   2   3   4   5

9. The product placement is an original idea, rather than a common one. 1 2   3   4   5

10. The product placement is an agreeable one, rather than being irritating. 1   2   3   4
    5

11. The product placement is an amusing one, rather than being boring. 1   2   3   4   5

12. The product placement is a pleasant one, rather than being shocking. 1   2   3   4   5

Appendix B. Stimuli

Participants were randomly assigned into one of the six groups as showed in Table B.1.

Table B.1 Experimental groups

	Global setting	Local setting
High PBG	Group 1	Group 4
Medium PBG	Group 2	Group 5
Low PBG	Group 3	Group 6

The treatment (script excerpt) in each group is as shown below.

Group 1. Global setting + High PBG (This message will not show in the survey)

(Joep van den Broek is a news editor)

INT. JOEP'S DIVISION FLOOR - LATER

Everyone's at work, in the cubicle spaces. Joep comes walking through the area, with his briefcase, on his way out.

EXT. STREET, AMSTERDAM - LATER

Joep's out walking among the crowds. But he's moving with some purpose, somewhere specific. All he's got is his briefcase.

CUT TO:

CLOSE ON THE MOBILE PHONE, AN EMAIL REPLY

Joep van den Broek is Out of the Office. This is an automatic reply

INT. AIRCRAFT CABIN, AMS, AMSTERDAM - SAME

The plane is mostly empty. But Joep's on it. And just one other guy. But he's sitting in the seat beside Joep. The Captain's speaking. Joep's looking at his Huawei mobile phone email from the photographer Cinthia Lane - Best picture I've taken with Canon. The total "F"ing quintessence of Life. Joep looks at this message like there's hope there, like finding this thing might save his career. The plane takes off now, soars.

Group 2. Global setting + Medium PBG (This message will not show in the survey)

(Joep van den Broek is a news editor)

INT. JOEP'S DIVISION FLOOR - LATER

Everyone's at work, in the cubicle spaces. Joep comes walking through the area, with his briefcase, on his way out.

EXT. STREET, AMSTERDAM - LATER

Joep's out walking among the crowds. But he's moving with some purpose, somewhere specific. All he's got is his briefcase.

CUT TO:

CLOSE ON THE MOBILE PHONE, AN EMAIL REPLY

Joep van den Broek is Out of the Office. This is an automatic reply

INT. AIRCRAFT CABIN, AMS, AMSTERDAM - SAME

The plane is mostly empty. But Joep's on it. And just one other guy. But he's sitting in the seat beside Joep. The Captain's speaking. Joep's looking at his Xiaomi mobile phone email from the photographer Cinthia Lane - Best picture I've taken with Canon. The total "F"ing quintessence of Life. Joep looks at this message like there's hope there, like finding this thing

might save his career. The plane takes off now, soars.

Group 3. Global setting + Low PBG (This message will not show in the survey)

(Joep van den Broek is a news editor)

INT. JOEP'S DIVISION FLOOR - LATER

Everyone's at work, in the cubicle spaces. Joep comes walking through the area, with his briefcase, on his way out.

EXT. STREET, AMSTERDAM - LATER

Joep's out walking among the crowds. But he's moving with some purpose, somewhere specific. All he's got is his briefcase.

CUT TO:

CLOSE ON THE MOBILE PHONE, AN EMAIL REPLY

Joep van den Broek is Out of the Office. This is an automatic reply

INT. AIRCRAFT CABIN, AMS, AMSTERDAM - SAME

The plane is mostly empty. But Joep's on it. And just one other guy. But he's sitting in the seat beside Joep. The Captain's speaking. Joep's looking at his Xiaomi mobile phone email from the photographer Cinthia Lane - Best picture I've taken with Canon. The total "F"ing quintessence of Life. Joep looks at this message like there's hope there, like finding this thing might save his career. The plane takes off now, soars.

Group 4. Local setting + High PBG (This message will not show in the survey)

(Jian Zhao is a news editor)

INT. JIAN ZHAO'S DIVISION FLOOR – LATER

Everyone's at work, in the cubicle spaces. Jian comes walking through the area, with his briefcase, on his way out.

EXT. STREET, SHANGHAI – LATER

Jian's out walking among the crowds. But he's moving with some purpose, somewhere specific. All he's got is his briefcase.

CUT TO:

CLOSE ON THE MOBILE PHONE, AN EMAIL REPLY

Jian Zhao is Out of the Office. This is an automatic reply

INT. AIRCRAFT CABIN, PVG, SHANGHAI – SAME   The plane is mostly empty. But Jian's on it. And just one other guy. But he's sitting in the seat beside Jian. The Captain's speaking. Jian's looking at his Huawei mobile phone email from the photographer Caiyan Lin – Best picture I've taken with Canon. The total "F"ing quintessence of Life. Jian looks at this message like there's hope there, like finding this thing might save his career. The plane takes off now, soars.

Group 5 Local Setting + Medium PBG (This message will not show in the survey)

(Jian Zhao is a news editor)

INT. JIAN ZHAO'S DIVISION FLOOR – LATER

Everyone's at work, in the cubicle spaces. Jian comes walking through the area, with his briefcase, on his way out.

EXT. STREET, SHANGHAI – LATER   Jian's out walking among the crowds. But he's

moving with some purpose, somewhere specific. All he's got is his briefcase.

CUT TO:

CLOSE ON THE MOBILE PHONE, AN EMAIL REPLY

Jian Zhao is Out of the Office. This is an automatic reply

INT. AIRCRAFT CABIN, PVG, SHANGHAI – SAME

The plane is mostly empty. But Jian's on it. And just one other guy. But he's sitting in the seat

beside Jian. The Captain's speaking. Jian's looking at his Xiaomi mobile phone email from

the photographer Caiyan Lin – Best picture I've taken with Canon. The total "F"ing

quintessence of Life. Jian looks at this message like there's hope there, like finding this thing

might save his career. The plane takes off now, soars.

Group 6 Local Setting + Low PBG (This message will not show in the survey)

(Jian Zhao is a news editor)

INT. JIAN ZHAO'S DIVISION FLOOR - LATER

Everyone's at work, in the cubicle spaces. Jian comes walking through the area, with his

briefcase, on his way out.

EXT. STREET, SHANGHAI - LATER   Jian's out walking among the crowds. But he's

moving with some purpose, somewhere specific. All he's got is his briefcase.

CUT TO:

CLOSE ON THE MOBILE PHONE, AN EMAIL REPLY

Jian Zhao is Out of the Office. This is an automatic reply

INT. AIRCRAFT CABIN, PVG, SHANGHAI - SAME

The plane is mostly empty. But Jian's on it. And just one other guy. But he's sitting in the seat beside Jian. The Captain's speaking. Jian's looking at his Honor mobile phone email from the photographer Caiyan Lin - Best picture I've taken with Canon. The total "F"ing quintessence of Life. Jian looks at this message like there's hope there, like finding this thing might save his career. The plane takes off now, soars.