

# **EFFECTO EN EL COMPORTAMIENTO DE LA AUDIENCIA ANTE COLOCACIONES DE PRODUCTOS EN PELÍCULAS: DOCUMENTANDO LOS ROLES CRUCIALES DEL TRANSPORTE NARRATIVO Y LA INTERACCIÓN PARASOCIAL**

## **RESUMEN**

Para explicar cómo la colocación de productos persuade a las audiencias de la industria del entretenimiento, estudios previos han utilizado diversos marcos psicológicos teóricos, como el modelo de transporte narrativo y la teoría de la interacción parasocial. ¿Pueden estas teorías ofrecer un poder explicativo en términos de opciones de comportamiento después de la exposición a una colocación en una película? Un experimento de campo aborda esta pregunta utilizando como estímulo la colocación de McDonald's en la película "*The Good Lie*" y comparando la medida en la que cada teoría aporta para poder explicar el aumento observado de la elección de McDonald's inmediatamente después de la proyección de la película. Los hallazgos indican que tanto la interacción parasocial con los personajes como el transporte narrativo en la película, independientemente y conjuntamente, aumentan la elección de los espectadores de la marca colocada después de la película.

**KEY WORDS:** Product placement; narrative transportation; parasocial interaction.

**Track:** MARKETING.

## **ABSTRACT**

To explain how product placements persuade entertainment audiences, previous studies have used various theoretical psychological frameworks, such as the transportation-imagery model and parasocial interaction theory. Can these theories offer explanatory power in terms of behavioral choices after exposure to a placement in a movie? A field experiment addresses this question using as a stimulus the McDonald's placement in the movie *The Good Lie* and comparing the extent to which each theory contributes power to explain the observed increase of the McDonald's choice immediately after the movie screening. The findings indicate that both parasocial interaction with the characters and narrative transportation into the film, independently and jointly, increase the viewers' choice of the placed brand after the movie.

## INTRODUCTION

The practice of product placement has spread in recent decades and will likely continue to grow in the coming years as a response to (a) increasingly favorable conditions, such as the progressive migration of TV viewers to websites where their favorite movies/series can be streamed/downloaded with less/no commercials (Strangelove, 2015) and (b) the recent discovery that a same promotional stimulus attracts customers from competitors more effectively when it is integrated within a program than when it is shown as a conventional ad (Redondo & Bernal, 2016).

In turn, academic research on product placement has grown at a rapid pace over the last twenty-five years. Indeed, a search on *Web of Science*<sup>TM</sup> for peer reviewed articles dealing with the topics “product placement” or “brand placement” reveals an exponential growth: from 4 articles in 1991-1995, to 9 in 1996-2000, 42 in 2001-2005, 110 in 2006-2010, and 210 articles in 2011-2015.

Most previous empirical studies have focused on the effects of product placement on memory, attitude, and/or behavior (e.g., Van Reijmersdal, Neijens, & Smit, 2009; Williams, Petrosky, Hernandez, & Page, 2011). To theoretically frame the effectiveness of product placement, previous studies have used various psychological theories, such as the transportation-imagery model and parasocial interaction theory. However, previous studies have not compared these theories’ ability to explain product placement effectiveness. If these theories could provide similar levels of explanatory power, academics could use them interchangeably as theoretical frameworks in their research. But if one of these theories could predict product placement influence more effectively than others, academics could focus their efforts on the theoretical framework that offers the most accurate predictions. Thus, comparing these theories’ explanatory power is a promising avenue of research.

This paper begins by summarizing the main mechanisms by which each theory explains how viewers of a film may be persuaded by the brands placed therein. It then describes an experiment conducted with ordinary moviegoers in a Chilean theater, where the impact of a McDonald’s placement in the movie *The Good Lie* was tested and the explanatory contribution of each theory, independently and jointly, was assessed. The paper concludes with a synthesis of the findings, the study’s strengths and weaknesses, and a discussion of future avenues of research.

## BACKGROUND AND RESEARCH OBJECTIVE

The transportation-imagery model (Green & Brock, 2002) proposes that people who watch, read, or listen to a story, can mentally transport themselves into the world evoked by the narrative. This psychological process, generally known as narrative transportation, may reduce people’s motivation and ability to think critically about the story’s content, thus making them more susceptible to persuasion (e.g., Dal Cin, Zanna, and Fong, 2004; Moyer-Gusé, 2008). Previous research has shown that narrative transportation can be a transformational experience, i.e., that it can lead the story’s receivers to change their real-world attitudes and behaviors in response to the story’s content (e.g., Green, 2004; Redondo & Bernal, 2016).

According to parasocial interaction theory (Horton & Wohl, 1956), audience members can develop attachments with media characters that are so strong that the former experience

the illusion of interacting with the latter. This illusory experience can have various manifestations, such as feeling intimacy with the characters, engaging in their thoughts and emotions, viewing them as referent others, and imitating their attitudes and behaviors (Russell & Stern, 2006). Previous research has shown that higher levels of parasocial interaction with protagonists of movies/TV shows lead viewers to improve their attitudes toward the brands used by such fictional stories' protagonists (e.g., Knoll, Schramm, Schallhorn, & Wynistorf, 2015; Russell, Norman, & Heckler, 2004).

This study's objective was to assess these theories' explanatory contribution to the effectiveness of a McDonald's placement within the movie *The Good Lie*. Because the theories are not mutually exclusive, the study also accounts for the possibility that both narrative transportation and parasocial interaction with the characters may boost product placement effectiveness. We set up experimental conditions, established mediating drivers, and conducted statistical analyses to achieve this objective. Experimental conditions were designed to ensure a high degree of internal validity in the isolation and testing of the impact of the McDonald's placement. As mediating drivers, consistent with previous studies, we considered the attachment to the movie's characters with respect to the parasocial interaction theory (Russell & Stern, 2006) and the degree of narrative transportation experienced with regards to the transportation-imagery model (Green, 2004). Our statistical analyses consisted of (a) building a baseline model where the McDonald's choice was explained by the McDonald's placement and the attitude to McDonald's, (b) building two alternative models that added the mediating drivers in interaction with the McDonald's placement and the attitude to McDonald's, and (c) including the higher order interactions between all variables.

## METHODOLOGY

### *Stimuli*

*The Good Lie* (2014) is a deeply moving and critically acclaimed drama that, though fiction, is based on the true plight of the "Lost Boys of Sudan." In the movie, a group of children are left orphaned and homeless by the Second Sudanese Civil War (1983-2005) and have to make a long, perilous journey on foot to reach a refugee camp in Kenya. Thirteen years later, the now young adults are given the chance to resettle in America. At arrival in Kansas City, they meet Carrie (Reese Witherspoon), an employment agency counselor assigned to help them get jobs. Although initially reluctant, Carrie becomes deeply involved in helping the Sudanese refugees overcome all types of difficulties they face in adapting themselves to modern life in an American city.

McDonald's appears in a 37-second long segment. While the refugees Mamere, Jeremiah, and Paul are being driven by car, Carrie has to stop because Jeremiah is about to vomit. While Jeremiah recovers on the side of the road, Mamere explains that his brother "has a weak stomach" and Paul asks about a billboard displaying the McDonalds golden arches. "That's McDonald's. It's a place to eat," answers Carrie. The next scene shows the refugees having McDonald's drive-thru menus in the car to the surprise of those who have never used a straw to drink from a plastic cup. Jeremiah enjoys the meal and feels better.

A control group version of the movie was created by removing the McDonald's-related segment from the original movie. Removal of this part did not cause the control group subjects to perceive more gaping holes in the story than did experimental group subjects (details in Results section).

### *Fieldwork Procedures*

The experiment took place at the Hoyts Cinemas theater in Arica, Chile. The event was presented as a *The Good Lie* release (the film had never been shown in Chile), and the announcement indicated that there would be free access to all those who had booked tickets before these sold out. For ten days prior to the movie's screening, the event was heavily promoted through (a) flyers distributed to everyone who entered the theater, (b) twelve announcements per day on two popular radio stations, (c) copies of the movie's poster placed in some public bulletin boards in the city center, and (d) invitation emails sent to the students, professors, and employees of the main university of Arica.

The show tickets were booked by phoning/emailing the number/address given in the promotional vehicles and then were picked up at the theater box office. In order to randomly assign the subjects to either the experimental or control group, the person in charge of managing the telephone/email reservations alternately assigned the callers/senders either to the first or second screening based on the order in which the call/email was received (the first screening had been designated to the experimental group and the second to the control group).

The screenings were held during the morning of Sunday, 22 November 2015. As soon as each screening ended, the lights were turned on, and a staff member appeared in front of the audience and introduced himself as a researcher conducting a survey. He then asked the audience members to fill out a brief questionnaire and said that, as a demonstration of his gratitude, the participants would be able to choose from among several gifts to be distributed upon exiting. In the meantime, some assistants handed out a folder containing a questionnaire and pen to each audience member.

At the end of the questionnaire, the respondents were asked to pick out three gifts, each of which was chosen from between two alternatives: either a *Pepsi* or *Coca-Cola* can, a *Pringles* or *Lay's* potato snack package, and a gift certificate for either a *McDonald's* or *Subway* combo meal. Each alternative was accompanied by a picture. At the room's exit, an assistant collected the questionnaires, and in the hallway outside, other assistants distributed the gifts selected by each participant.

### *Sample and Variables*

None of the attendees openly refused to complete the questionnaire when administered, but three questionnaires were left blank. The final sample consisted of 818 valid questionnaires, of which 415 were from the experimental group and 403 from the control group. There were 424 males and 394 females, with the following age distribution: 13% under 18 years old, 44% aged between 18 and 30 years, 25% aged between 31 and 40 years, 14% aged between 41 and 50 years, and 4% above 50 years of age.

The variables were divided into two types depending on whether or not they could be directly measured.

Attachment to Characters, Narrative Transportation, and Attitude to McDonald's were defined as latent variables because they referred to abstract, complex, and not directly observable phenomena. Each latent variable was constructed by averaging the responses to five items selected and adapted from previous studies. Some examples of items are "While watching the movie, I wanted *Mamere*, *Jeremiah*, and *Paul* to succeed in achieving their goals" for Attachment to Characters (Cohen, 2001), "I was mentally involved in the story while watching the movie" for Narrative Transportation (Green & Brock, 2000), "I think McDonald's has a lot of beneficial characteristics" for Attitude to McDonald's (Putrevu & Lord, 1994). All the items were rated on a seven-point Likert scale (from  $-3 =$  *completely*

*disagree*, to 3 = *completely agree*). All multi-item scales were found to have high internal consistency (details in Results).

The other variables were directly measured. McDonald’s Placement was coded 1 for those who watched the original movie with the McDonald’s appearance and 0 for the control group. Consistent with previous experiments (Redondo, 2012), McDonald’s Choice was coded 1 if the subject selected the McDonald’s combo meal and 0 if the choice was for the Subway combo meal. Another item, “This movie’s screenplay has gaping holes,” rated on the same Likert scale, was used to check if the McDonald’s-related part’s removal produced a change in the movie’s perceived integrity.

## RESULTS

All the calculations were performed with *IBM SPSS Statistics 22*, and the significance threshold was set at  $p < .05$ .

Reliability or internal consistency of the multi-item scales was assessed using Cronbach’s alpha, which equaled .874 for Attachment to Characters, .854 for Narrative Transportation, and .987 for Attitude to McDonald’s, with all these values considerably exceeding the threshold recommended by Hair, Black, Babin, and Anderson (2010).

The removal of the McDonald’s-related segment did not affect viewers’ impressions, for there were no significant differences in the perceived integrity of the movie between the experimental group and the control group ( $M_{EG} = -2.660$ ;  $M_{CG} = -2.576$ ;  $F_{1,814} = 2.821$ ,  $p = .093$ ).

Yet, as Table 1 shows, the McDonald’s choice frequencies resulting from (not) being exposed to the McDonald’s placement were significantly different ( $X^2 = 31.447$ ,  $df = 1$ ,  $p < .001$ ). Exposure to the movie with the McDonald’s placement produced a larger-than-expected variation in the McDonald’s choice.

**TABLE 1: Cross tabulation between placement and choice of McDonald’s**

		McDonald’s choice		
		No	Yes	Total
McDonald’s placement	No	188	215	403
	Yes	115	300	415
Total		303	515	818

To explain variability in McDonald’s Choice, it was first regressed against two predictors, McDonald’s placement and Attitude to McDonald’s, both of which accounted for a significant amount in explained variance; 33.2% (see the baseline model in Table 2).

McDonald’s Choice was regressed against the predictor variables incrementally, so that at each step the change in the explained variability of McDonald’s Choice could be assessed. Note that Narrative Transportation/Attachment to Characters is not supposed to have a direct

effect on McDonald's Choice but an indirect effect as mediated through McDonald's Placement (i.e., the higher the level of narrative transportation/attachment to characters, the greater the product placement effectiveness) and Attitude to McDonald's (i.e., the better the placed brand is evaluated by the viewers, the easier it is for these to experience higher levels of narrative transportation/attachment to characters). So the second and third models' predictors were the interactions of Narrative Transportation/Attachment to Characters with McDonald's Placement/Attitude to McDonald's. The final model also included the three-way interaction term (see Table 2).

With respect to the model considering Narrative Transportation, both interactions were significant, and the whole model explained 39.1% of the variability in McDonald's Choice, which represented an increase of 18% in the baseline model's determination coefficient  $R^2$ .

In relation to the model considering Attachment to Characters, both interactions were also significant, and the whole model explained 45.1% of the variability in McDonald's Choice, showing an increase of 36% in the baseline model's determination coefficient  $R^2$ .

Regarding the final model, Narrative Transportation and Attachment to Characters simultaneously interacted with both McDonald's Placement and Attitude to McDonald's, and these three-way interactions explained 54.5% of the dependent variable's variability, which represented a maximum increase of 64.2% in comparison to the baseline model's  $R^2$ .

## DISCUSSION

The strength of this experiment lies in its high levels of both internal validity (due to the use of a randomized control trial design) and external validity (due to the faithful recreation of the natural conditions and the recruitment of ordinary moviegoers drawn by the movie). These high standards strengthen the potential generalizability of our findings.

Building on the body of evidence supporting product placement behavioral effects (e.g., Auty & Lewis, 2004; Redondo & Bernal, 2016), the findings confirm that a significant number of viewers chose McDonald's as a direct result of being exposed to the McDonald's placement in the movie *The Good Lie*. A remarkable novel finding deals with the important significance and relevance of both the transportation-imagery model and parasocial interaction theory in explaining the observed behavioral effects of product placement. Three points are worth noting. First, since the inclusion of Narrative Transportation/Attachment to Characters produces a notable increase in the baseline model's McDonald's Choice variability explanation, both theories effectively contribute to explaining product placement effectiveness, which is consistent with previous studies that confirmed each theory's explanatory efficacy. Second, since the model considering Attachment to Characters produces twice as much increase in the baseline model's McDonald's Choice variability explanation than does the model considering Narrative Transportation, parasocial theory is revealed to be a more effective theoretical framework to help explain product placement effectiveness. Finally, the significant higher order effect show that the two theoretical processes jointly operate in affecting product placements' impact.

**TABLE 2: Competitive models for McDonald's Choice**

	Type III Sum of Squares	df	Mean Square	F	Sig.
<i>Baseline model</i>					
McDonald's Placement	7.733	1	7.733	47.993	.000
Attitude to McDonald's	55.979	25	2.239	13.897	.000
$R^2 = .332$ (Adj. $R^2 = .310$ )					
<i>Model considering Narrative Transportation (NT)</i>					
McDonald's Placement x NT	8.538	5	1.708	10.770	.000
Attitude to McDonald's x NT	64.464	68	.948	5.979	.000
$R^2 = .391$ (Adj. $R^2 = .321$ )					
<i>Model considering Attachment to Characters (AC)</i>					
McDonald's Placement x AC	11.291	7	1.613	10.482	.000
Attitude to McDonald's x AC	73.972	118	.627	4.074	.000
$R^2 = .451$ (Adj. $R^2 = .341$ )					
<i>Model considering NT and AC</i>					
McDonald's Placement x NT x AC	12.506	13	.962	6.480	.000
Attitude to McDonald's x NT x AC	79.560	159	.500	3.370	.000
$R^2 = .545$ (Adj. $R^2 = .364$ )					

Two limitations should be noted that weaken the potential generalizability of our findings and call for cautiousness when extrapolating the drawn conclusions. The first one refers to the unnatural conditions under which the subjects had to choose/reject McDonald's – that is, the brand was given out free of charge and the choice was limited to only two brands. The second limitation relates to the restricted geographical area covered by this study's fieldwork. Although the experiment enjoyed the benefits of including participants from all demographic strata, whether the results obtained in Chile can be directly applied or partially adapted to other countries is still unknown at this time.

To obtain a more complete understanding of the phenomenon in the future, it would be interesting to extend the research scope to additional unexplored aspects, additional theoretical frameworks, different entertainment media, various types of placements, and varying levels of brand familiarity. This study suggests that the transportation-imagery model and parasocial interaction theory should be considered to be *complementary* rather than *alternative* approaches.

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