Advertising effectiveness of interactivity with real, transfigured, fictional and incongruent brands in narrative video games

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Abstract

Purpose - One of the problems advertising has faced has been the rising counter-argumentation in traditional media. The search for new pull marketing strategies in a culture of digital entertainment requires new and more effective forms of product placement. The authors investigate the advertising effectiveness of new types of branding in products of the interactive digital entertainment culture.

Design/methodology/approach - The research consisted in placing several types of real and fictional brands in five versions of a narrative video game. Over a two-week period, participants were tested on counter-argumentation, interactivity with the static and dynamic advertising stimuli and advertising effectiveness (N=274).

Findings - The results show the cognitive, affective, and conative advertising effectiveness of transfigured brands compared to real and fictional brands. The transfigured brands have the advantage over fictional brands in that, during the enjoyment of the videogame, the consumer makes a semantic transfer to the real brand. This processing has a high advertising effectiveness as it induces processing of real brands without provoking counter-argumentation.

Originality - This is the first research that explores and conceptualizes the phenomenon of brand transfiguration, which had not been investigated until now and which opens new applied possibilities for brand placement.

Practical implications - Interactivity with transfigured brands contributes to create experience and engagement with the brand. Moreover, as they are well integrated in the content, they avoid counter-argumentation. That is why they open an investment space of interest for the advertiser.

Keywords brand placement, advertising effectiveness, fictional brands, video games, advertainment

1. Introduction

The decreasing advertising effectiveness of traditional media, along with other components of technological and sociocultural change, has aroused interest in pull marketing strategies in hybrid cultural content in digital entertainment (Balasubramanian, 1994). In video games as advertainment, advertising and entertainment are fused into content (Ozturk, 2017; Russell, 2007). However, in order to further the knowledge of the processes and mechanisms underlying this kind of interactive content, the scope must be broadened into new intertextual dimensions (Russell, 2019). This research focuses on three interrelated aspects that need to be studied in depth in order to understand the effects of advertising in this type of entertainment content, where there is voluntary interactivity from consumers. These aspects are the counterarguing processes underlying interaction with content in context, the effectiveness of product placement in content, and the effects of placed brand-consumer interactivity.

2. Literature review

2.1. Counterarguing real and fictional brands

One of the main problems of product/brand placement in traditional advertising is counterargument. Counterarguments are consumer responses that are contrary to the brand's attempt to influence an audience. The consumer resists the attempt to persuade them. Their resistance may show in a negative attitude that expresses irritation, intrusiveness or incongruency by the presence of advertising in the content. An irritating commercial is defined as provoking, causing displeasure, and momentary impatience (Aaker and Bruzzone, 1985). Intrusiveness is defined as the interruption of the goals of consumers in traditional media (Li *et al.*, 2002). The literature confirms than when advertising interrupts the goals of consumers, consumers could react either by passively ignoring the ad, or avoiding it. Intrusiveness is a precursor to feelings of irritation, and added that intrusiveness might lead to avoidance behaviors (Li *et al.*, 2002; Martí *et al.*, 2012). Ha (1996) found that intrusiveness has a negative effect on attitudes toward the ad. Incongruent or absurd ads refer to those atypical ads falling outside expectations or current cognitive activities. In particular, absurd ads are defined as "incongruously juxtaposing pictorial images, words and/or sounds perceived as bizarre, irrational, illogical and disordered" (Arias-Bolzmann *et al.*, 2000, 37).

Brands today seek to develop a relationship with users. Like all relationships, it must be based on trust, honesty, and lack of deception. When interacting with advertainment products, users are looking for entertainment. If they feel that there is an attempt to persuade them without their being aware of it, this can have a detrimental effect on the brand. Based on this, brands need to find effective ways of being part of advertainment while avoiding counterargument. The challenge is to reduce irritation, intrusiveness and incongruency, and to improve the level of brand acceptance within the content.

So far, product placement has been studied using variables such as modality (visual/auditory/audio-visual)(Charry, 2014), degree of integration on screen or script (Russell, 2002), proximity (Lee and Faber, 2007), prominence (Gupta and Lord 1998; Schneider and Cornwell, 2005) or repetition (Homer, 2009), dimensionality (two/three dimensions), character speech and voice over (Russell and Stern, 2006), and static or dynamic placement (Beattie and Mitchell, 1985; Gati and Tversky, 1987; Nairne *et al.*, 1997; Taylor and Thompson, 1982). However, little is known about the effects of brands according to the fictionality of the referent (real/unreal) and the role of the context of integration as dependent on fictionality. Like other forms of narrative advertainment, video games take place in a fictional diegetic universe. Although the topic is interesting, the possible role of fictional brands in counteracting counterargument through better integration into fiction and the narrative context of entertainment has barely been explored. For this, the counterargument and integration processes of different types of brands must be understood as a function of their referents and fictional contexts. This gives rise to three types of brands other than *real brands* (RB): *fictional brands* (FB) – brands integrated into fiction with no referents in the real world–, *incongruent brands* (IB) – real brands in an incongruent fictional context –, and *transfigured brands* (TB) – fictional brands whose referents are real brands.

Based on this, a first question can be raised about brand integration into narrative fiction and counterargument:

> *RQ1*. Given an advertainment context, *do the various types of brands in terms of real or fictional referents elicit the same level of counterargument?*

In order to answer RQ1, it is argued that integration depends on brand coherence and appropriateness to context. The higher the degree of integration, the lower the level of counterargument (and, therefore, the lower the levels of irritation, intrusiveness,

incongruency and rejection of brand placement in advertainment). Based on this assumption, the hypotheses below can be posed:

> *H1a*. Real or fictional brand-context congruency leads to lower levels of counterargument as compared to brand-context incongruency. The levels of counterargument for the four types of placed brands would be as follows: (RB, TB, FB) < IB.

Some studies suggest that counterargument could influence brand attitude (Hernandez *et al.*, 2004). This leads to another hypothesis:

> *H1b.* The higher the level of counterargument, the more negative the attitude toward the brand placed.

2.2. Advertising effectiveness in fictional brands

This paper argues that, in order to minimize or even neutralize counterargument and improve brand integration into narrative advertainment, fictional brands could be used that can be associated with real brands in the minds of consumers – a possibility that has not been much explored so far – as a strategy to achieve advertising effectiveness. As a matter of fact, minimizing counterargument does not mean there will be advertising effectiveness. The general question is whether fictional brands really lead to advertising effectiveness, how this happens and what the underlying mechanisms are. Four types of brands have been identified on the basis of the relations between brand, referent and context of integration, namely, real brands (RB), transfigured brands (TB), fictional brands (FB), and incongruent brands (IB). A second question can be asked about their advertising effectiveness:

> *RQ2. What types of brands are better integrated, thus leading to lower levels of counterargument and greater advertising effectiveness?*

Advertising effectiveness is the result of the balance between various indicators. This balance takes into account not only cognitive responses but also affective attitudes and conative variables (Balasubramanian *et al.*, 2006). The goal is for consumers not only to process the integrated brand (and thus recall it and recognize it), but to avoid rejection and elicit positive attitudes. Video games are fictional universes where brand presence is subject

to the test of plausibility. The presence of fictional brands in video games is acceptable, for they fit in the diegetic universe created. But, in order to be effective, fictional brands have to be associated with real brands. Thus, it could be hypothesized that *transfigured brands* are more effective than *fictional brands*. On the other hand, *real brands* would stand the test of plausibility but could be rejected for being part of the real world and being placed in a different, fictional, universe. Finally, *incongruent real brands* would have another disadvantage as a result of being inserted in a diegetic universe that is inconsistent with the narrative. Consequently, their advertising effectiveness would be lower. Based on the three criteria described above – type of referent (real vs fictional), integration into context (plausible vs implausible), and association with a real brand –, a second hypothesis can be put forward:

> *H2.* The cognitive, affective, and conative advertising effectiveness of the different types of brands would be, in descending order: TB > RB > FB > IB.

2.3. Advertising effectiveness and interactivity

Video games enable various degrees of interactivity with content and thus with placed products. It is usually held that the higher the degree of interactivity, the greater the effectiveness. However, this begs the question of what is meant by "greater interactivity". Some studies suggest that interactivity is higher in two-way communication than in mere interactions with the physical properties of stimuli. Whereas the latter only enable perceptual interactivity, the former triggers conceptual fluency and, as a result, greater interactivity. This dichotomy suggests that conceptual fluency could result in greater advertising effectiveness (Hang and Auty, 2011). This type of research raises the question of the degree of advertising effectiveness depending on the nature of the interaction with the stimulus. However, the assertion that two-way communication is more effective is not beyond discussion in advertising. On the other hand, the underlying idea in this concept of interactivity is that interactivity is higher when the medium's possibility of interaction is higher. In other words, interactivity ultimately depends almost solely on the possibilities offered by the medium. These include, for example, speed, range (number of possible actions), or mapping (human actions connected with mediated environment). However, from our perspective, the focus cannot only be on the functions and features of the technological device. According to Rafaeli (1988), interactivity is a complex process of responsiveness that lies in the user-

medium intersection and takes both dimensions into account (Rafaeli and Ariel, 2012). From the medium perspective, the interactive process relies on the possibilities of the interactive structure. From the user standpoint, it involves expectations, realizations, and perceived outcomes. Narrative video games are a type of advertainment in which participants want to enjoy themselves when engaging in the activity of playing. There is a plot and players are part of it, interacting with objects to achieve certain goals, performing certain actions, and assessing their outcomes.

Framed within the responsiveness approach, even when a few exploratory studies have been conducted (Hang and Auty, 2011), more research is needed into narrative video games to analyze advertising effectiveness on the basis of the physical properties of stimuli and elements of user responsiveness. It could be useful to know whether interactions with a static object, which only enable perceptual processing of the brand placed in the object, lead to lower advertising effectiveness than interactions with a brand in a dynamic object, where the possibilities of interaction are higher. In the video game chosen for this research, gamers can see a brand's poster hanging on the wall (Figure 2). In the room there are moveable, three-dimensional objects as well, and users can interact with them, manipulating and integrating them into the narrative by means of a series of actions performed by their avatars. They can, for instance, grab a bottle and add it to the gameplay (Figure 2).

Based on this concept of interactivity and its possible relation to advertising effectiveness, a third question can be asked, with a corresponding hypothesis:

> *RQ3. Does manipulating a dynamic object during the interaction with the brand placed in it lead to higher advertising effectiveness than interacting with a static object visually without manipulating it?*

> *H3.* Interaction with brands placed in dynamic products leads to higher advertising effectiveness than interaction with brands in static objects.

3. Method

3.1. Design and Procedure

The study was conducted at the University of V. In total, 274 undergraduates participated in the research (M_{age} = 21.89, SD_{age} = 3.56; 43.8% female).

Stimuli. The video game chosen for this research project was *The Guest*, developed by the independent studio Team Gotham (2016). Set in an American hotel in the 1980s, *The Guest* is a first-person exploration game inviting players to solve a series of enigmas. In an immersive storytelling experience, gamers (avatars) must explore a room and find the right clues and objects for their way out.

Taking the research hypotheses and goals into account, versions for eight advertising stimuli were designed in the laboratory. The product to be placed would be whiskey, as preliminary analyses showed its adequacy for the aesthetics of the video game. Based on the results of a market survey, the real brands J&B and Jack Daniel's were selected for their reputation and consumption among the target audience and among participants in the research project. Two other real brands, DYC and Veterano, also popular with the target audience, were selected as incongruent with the context of the video game. *The Guest* has an obvious American aesthetics, whereas these two real brands are from Spain and are well-known by Spanish consumers. Thus, they would look incongruent in the video game. In addition, two transfigured fictional brands – G&R and Mark Haniel's – and two fictional brands – SKY and Carl Masters – were created in the laboratory. These last four brands are congruent with the American aesthetics and context of the video game. (Figure 1). In collaboration with Team Gotham, the advertising stimuli were inserted in specific spots in four of the five versions of the video game designed for this research (Figure 2). These versions were identical to the market video game but for the fact that the latter contained no advertising and was longer. Each of the four versions included two stimuli – one static, one dynamic. The static stimulus was a poster hanging on a wall; the dynamic object was a bottle of whiskey in a cupboard. Gamers could get it and include it in the inventory within the story. The poster and the bottle had diegetic referents of the same category – real, transfigured, fictional or incongruent. The fifth version of the game contained no advertising stimuli. In terms of interactivity, at the beginning of the game – the starting point of responsiveness –, players

were faced with a series of narrative goals that drove them to find clues. In connection with the objects with which they had to interact, they had expectations to explore, perceive, find information and act (getting an object and including it in the inventory). During the gameplay, they realized those expectations by exploring the objects in the room. Finally, their perceived outcomes were the result of their interactive experience during the gameplay.

Figure 1 Brands placed in the experimental groups

Figure 2 Static (poster) and dynamic (bottle) placement in the videogame

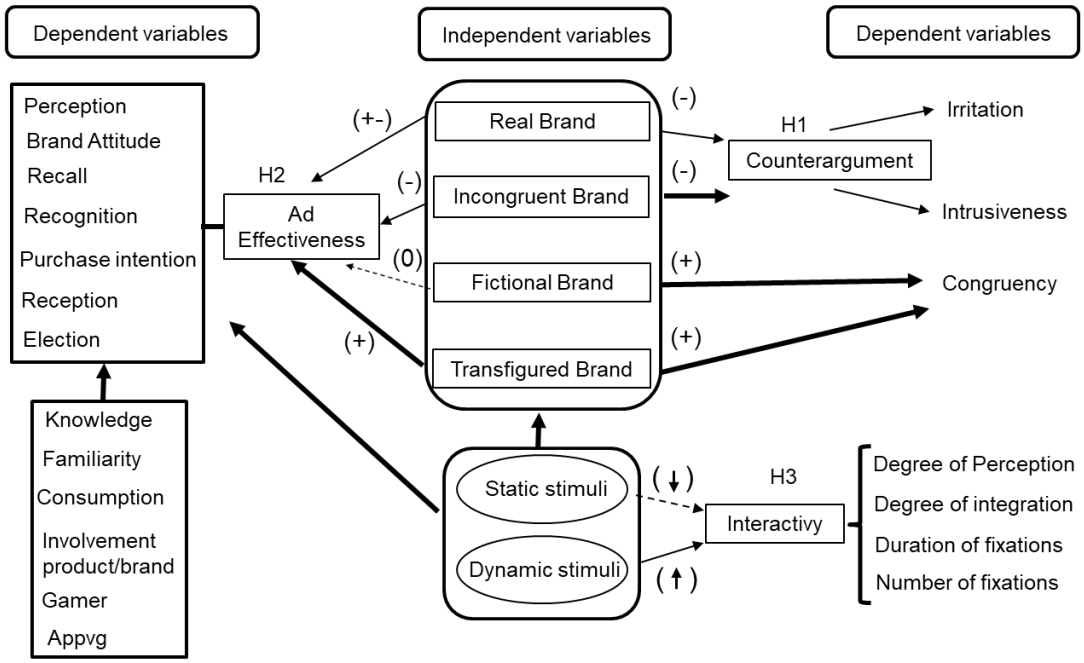
Procedure. Participants were allocated one of the five versions of the video game at random and asked to play a 20-minute game. The game duration was defined according to pre-tests conducted to determine the average time needed for gamers to be exposed to the two stimuli selected. The game was played in an adapted booth in the laboratory, using a 24" HD computer. Tobii X2-60 was used as an eye tracker, and the games were recorded for

subsequent analysis, aimed at checking whether the players made eye contact with the stimuli and processed them. After the game, participants were asked to take a test that included items from a first set of dependent processing variables. One week later, they had to come back to the laboratory for another test with a second set of scales and questionnaires.

3.2. Measurements

The groups of participants were defined by the type of referent of the brand placed in the video game (real or fictional) and the context of integration (congruent or incongruent with the diegetic universe of the video game). This led to four different experimental groups: RB (congruent real brand), TB (transfigured fictional brand), FB (fictional brand), and IB (incongruent real brand). In addition, there was a control group whose game included no advertising stimuli (hereinafter referred to as WA, without advertising). Except for WA, each group was allocated one version of the video game with a static and a dynamic stimulus (poster and bottle, respectively) for the corresponding type of referent and context.

Figure 3 conceptual model. Hypotheses and variables tested in this research



The design included four types of dependent variables (Figure 3):

(1) To test the level of counterargument and brand attitude referred to in H1, four scales were selected: *Irritation* (IRRI) (Ducoffe, 1996), *Intrusiveness* (INTRU)(Wang and

Calder, 2006), *Congruency* (CONGRU)(Hernandez *et al.*, 2004), and *Brand attitude* (A_b)(Spears and Singh, 2004).

(2) To test the advertising effectiveness referred to in H2, six cognitive and conative variables were included in addition to Ab. The eye-track recording of the games enabled the measurement of the first cognitive variable, namely, the perception of the advertising stimulus placed in the game (PERPLA). The second variable was the recall of the brands placed, both in the short term (RECALLst) and in the medium term (RECALLmt). The third variable was the subjects' recognition of the brands placed from a ten whiskey-brand list. This variable was also measured in the short term (RECOGst) and in a medium term, one week later (RECOGmt). Also, participants responded to three conative variables for the brands of the static and dynamic products placed: a purchase intention scale (PI) (Homer, 1990), a scale measuring the desire to get a sample of the whiskey whose brand had been placed in the game (RCP), and a scale measuring the choice of the brands placed among other possible brands (ELEC).

(3) With regard to H3, the eye tracker provided data to see whether the subjects perceived the advertising stimulus in the game and to analyze the degree of interactivity with the stimulus during the game. The degree of integration was analyzed for both the static and dynamic placement [DEOI: static placement (perception; peripheral or focal vision); dynamic placement (perception, manipulation, or manipulation and inclusion in the inventory)]. The DURAFIX variable measured fixation duration for both the static and the dynamic stimulus, whereas the NFIX variable quantified the number of fixations on both types of stimuli.

(4) Finally, a series of additional variables was included to explore the relationships between the subject and the product, the brand and the format. The goal was to assess their moderating influence on the brands' advertising effectiveness and on interactivity. First of all, the degree of knowledge (KNOW) of the real brands and the familiarity (FAM) with them were analyzed (Martí *et al.*, 2017). Then, a set of variables was used to understand the relationship between participants and product/brand consumption (CONSUM), as well as their involvement with the products (INVOLp)(Zaichkowsky, 1994) and the brands (INVOLb)(Varela *et al.*, 1998). Also, two other variables were considered to evaluate affinity with the video game in everyday life (MEAF)(Perse, 1986) and player behavior (GAMER). Finally, the study measured attitude toward placement in games (A_{ppl}) (Nelson *et al.*, 2004).

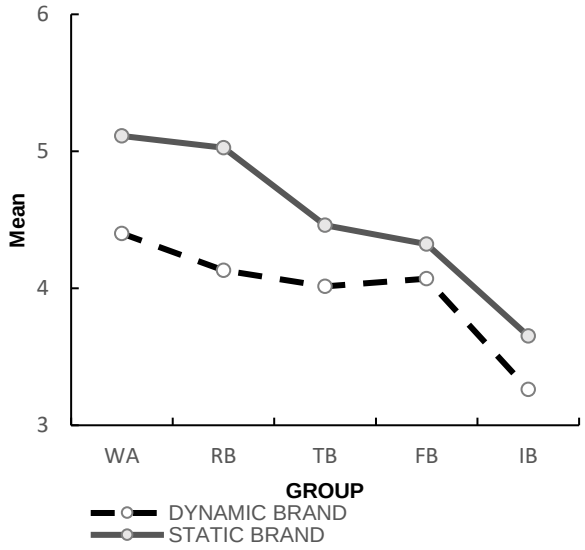
4. Results

4.1. Counter-argumentation to the real and fictitious brands

To answer RQ1 we conducted four types of analysis.

(1) First, the analysis of attitudes towards the brands located reveals two phenomena. On the one hand, the ANOVA shows that the attitude towards incongruent brands (IB) is significantly worse than for the rest of the brands (dynamic brand: $F(4,269)7.438$, p=.000; static brand: $F(4,269)8.802$, p=.000). Multiple comparisons in post hoc tests show that the differences between the brands of the other three groups, RB TB FB, are not statistically significant. Scheffe's test shows two homogeneous groups. On the one hand, a subset that includes only the IB group and another subset with the other three groups. (Figure 4).

Figure 4 Attitude toward the dynamic and static brands



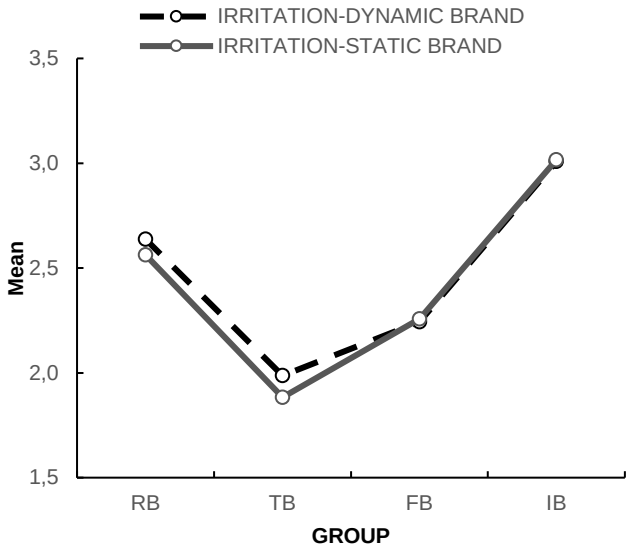
A second phenomenon concerns the real brands. The attitude towards real brands (J&B, Jack Daniels, Veterano Whisky and DYC) is better in the WA group (in whose version of the video game these brands are not present) compared to the RB and IB groups where these brands are present (Figure 4). Even though, according to Scheffe's test, the mean differences are not statistically significant, this result suggests that in the RB and IB groups something happens during the participant's game that affects his attitude towards these real

brands. The results shows that this worse attitude towards the real brand especially affects the incongruent real brands in the IB group.

The context of the narrative video game is a fictional diegetic universe in which real and fictional brands have made an appearance. The above two results would suggest that attitudes toward real brands are adversely affected by the influence of that context and could be provoking counterargumentation.

(2) Second, to understand the two previous phenomena, which suggest a differential counterargumentation response between types of brands, it is necessary to relate them to the attitude of acceptance of the brand in the video game. To this end, was carried out the analysis of the irritability, intrusiveness, and congruence variables. These variables show the following phenomenon that confirms the process of unfavorable counter-argumentation towards real brands. The ANOVA of the variable IRRI shows significant differences between the groups in the irritability attitude induced by both dynamic brands [F(3,223)9.407, p=.000)] and static brand [F(3,223)11.124, p=.000)] (Figure 5). In multiple comparisons, Scheffe's test shows significant differences between the real dynamic brand RB and the transfigured dynamic brand TB (mean difference M=.6225, Std.Error=.2017, Sig. =.027); between the dynamic incongruent brand IB and TB (mean difference M=.9858, Std.Error=.20326, Sig.=.000); between the dynamic incongruent brand IB and FB (mean difference M=.7806, Std.Error=.2016, Sig.=.003). The same result for the static brands. Significant differences appear between RB and TB (mean difference M=.6870, Std.Error=.2060, Sig.=.014), and between IB and TB (mean difference M=1.1408, Std.Error=.2076, Sig.=.000) and between IB and FB (mean difference M=.8064, Std.Error=.2059, Sig.=.002). Finally, two homogeneous subsets appear in Scheffe's test: real brands (RB and IB) and fictitious brands (TB and FB).

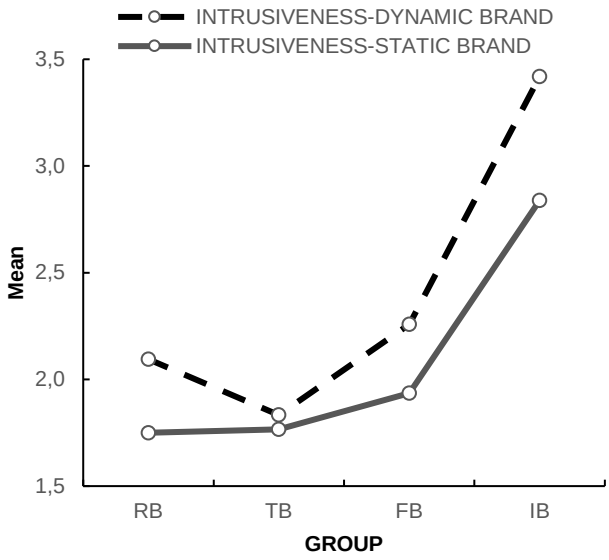
Figure 5 Irritability attitude (IRRI) towards dynamic and static brand placement in the video game



The ANOVA of the variable INTRU shows the same phenomenon that has just been presented (Figure 6). There are significant differences in the intrusiveness attitude towards both static and dynamic real and fictitious brands (dynamic placement: $F(3,223)14.863$, p=.000; static placement: $F(3,223)8.944$, p=.000). In the multiple comparisons, the Scheffe test showed significant differences between the dynamic brand of the IB group and the other three groups (IB-RB: mean difference, M=1.3256, Std.Error=.2545, Sig.=.000; IB-TB: mean difference M=1.5860, Std.Error=.2586, Sig.=.000; IB-FB: (mean difference M=1.1613, Std.Error=.2565, Sig.=.000). Likewise, significant differences appear between the IB group and the other three groups for the static brand (IB-RB: mean difference, M=1.0887, Std.Error=.2428, Sig.=.000; IB-TB: mean difference M=1.0720, Std.Error=.2468, Sig.=.001; IB-FB: (mean difference M=.9032, Std.Error=.2447, Sig.=.005).

Therefore, the real brands, MI and RB, induce greater irritability and intrusiveness than the fictitious brands MT and FB.

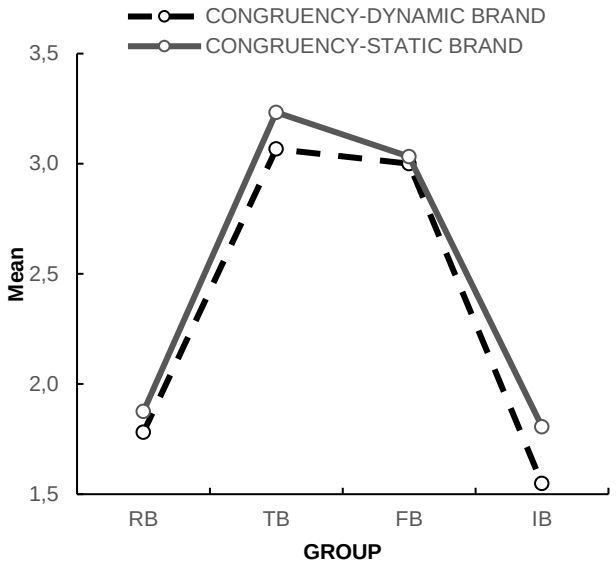
Figure 6 Perception of intrusiveness (INTRU) in the video game of the dynamic brand and the static brand



The ANOVA of the CONGRU variable also shows a different attitude towards real and fictitious brands [dynamics: *F*(3,223)39.380, p=.000; statics: F(3,223)29.575, p=.000]. Participants also consider the inclusion of the fictitious brands in the video game more congruent than the real brands (Figure 7). The result of multiple comparisons using Scheffe's test indicates that there are significant differences between the dynamic real brands of the RB and IB groups and the dynamic fictional brands of the TB and FB groups (RB-TB: mean difference, M=-1.285, Dev. Error=,178, Sig.=,000; RB-FB: mean difference, M=-1,219, Std.Error=,177, Sig.=,000; IB-TB: mean difference, M=-1,518, Std.Error=,180, Sig.=,000; IB-FB: mean difference, M=-1,452, Std.Error=,178, Sig.=,000). Likewise, with respect to the static brands, it's found the same differential result (RB-TB: mean difference, M=-1.358, Std.Error=.195, Sig.=.000; RB-FB: mean difference, M=-1.157, Std.Error=.193, Sig.=.000; IB-TB: mean difference, M=-1.427, Std.Error=.197, Sig.=.000; IB-FB: mean difference, M=-1.226, Std.Error=.195, Sig.=.000). Finally, Scheffe's test shows two homogeneous subsets. In one would be the real RB-IB brands and in the other the fictitious TB-FB brands.

Thus, the real brands, RB and IB, are perceived as less congruent than the fictitious brands, TB and FB.

Figure 7 Perception of congruence (CONGRU) of dynamic and static brand placement in the video game



The analysis of the correlations between these three variables IRRI, INTRU and CONGRU shows, on the one hand, that there is a very significant positive correlation between these two variables IRRI and INTRU and an inverse correlation of these two with the variable CONGRU (Table 1). This phenomenon is the same for both placements. This result also highlights how these three variables show differential response to real and fictitious brands.

Table 1 Correlations between the variables of acceptance of the brand placement

In summary, the analysis of irritability and intrusiveness has shown that real brands induce greater rejection than fictitious brands. At the same time, fictitious brands are considered more appropriate and congruent to appear in the video game. This result sheds light on the differences previously found regarding attitudes towards real and fictitious brands in this video game.

(3) Third, it could be considered that Attitude towards Product Placement in Video Games (Appvg) could be influencing the previous phenomena. However, as the analysis of this Appvg variable shows, all groups have similar general attitudes towards that type of advertising presence (F(4,223),636, p=.638). Therefore, it is not a variable that is influencing participants' responses on the A_b, IRRIT, INTRU and CONGRU variables.

(4) A fourth analysis aimed to determine whether irritability, intrusiveness and congruence are variables involved in the variability of the A_b, recall (RECALL) and recognition (RECOG) variables. For this purpose, different analyses were carried out using simple and multiple regression.

First, Table 2a shows the results of the simple and multiple regression that explores the possible influence of the variables IRRI, INTRU and CONGRU on attitudes towards brands (variable Ab). Overall, INTRU and CONGRU are the variables with the strongest influence on attitude Ab (R^2 around 70%). IRRI is also influential, but less so (R^2 around 17%). This influence occurs for both placements.

Second, as a whole, the variables A_b-IRRI-INTRU-CONGRU have little or no influence on short-term recall (RECALLst) and recognition (RECOG). Thus, they are not predictor variables of the recall level response. (Table 2b).

Table 2a Regression of acceptance variables on attitude towards the brand

Table 2b Regression of the acceptance variables on recall and recognition

From the results of the four types of analysis carried out, three conclusions can be drawn that allow us to provide some answers to RQ1:

-There is a phenomenon of counter-argumentation, differential between real and fictitious brands. The first ones induce greater irritability and intrusiveness. These two attitudes have a negative influence on the attitude towards the brand.

-The presence of fictitious brands is considered more congruent than real brands in this interactive entertainment context.

-Fictional brands generate positive attitudes towards the brand of a level equivalent to the RB non-incongruent real brand. Since they induce less counter-argumentation than RB, it might be thought that they are more appropriate from an applied marketing point of view. However, in order to reach this conclusion, the results of this first section are not sufficient, since a second issue must be addressed, which has to do with the capacity of fictitious brands

to generate advertising effectiveness. The analyses in the following section will provide answers.

4.2. The advertising effectiveness of fictitious brands

To find out whether the brands are effective, it is a prerequisite that the player has processed them during the game. Thus, a first analysis by eye tracker has allowed us to know the degree of perception of the bottle (dynamic location, variable PERPLAdp) and the poster (static location PERPLAsp). Most of the subjects see both placements. The percentage of players who see the advertising objects is very high in all groups (dynamic placement: RB 84.4, TB 86.7, FB 90.3, IB 93.5; static placement: RB 96.9, TB 93.3, FB 100 IB 100 (Figure 8). In addition, there is a significant bilateral correlation between seeing the dynamic and seeing the static placement ($r(224)=.351$, $p<.01$). To test whether the advertising stimuli are perceived better in one group or the other, a statistical analysis was performed using chi-square and ANOVA. The differences between groups are not significant (dynamic placement: $\chi 2$ (6, N =224) = 3.475, p < ,747; static placement: $\chi 2$ (6, N =224) = 8.120, p < ,229; dynamic placement: $F(3,223),179$, p=.910; static placement: $F(3,223),149$, p=.627). Even though the static placement is perceived somewhat better than the dynamic placement, the differences in the perception of both stimuli are not statistically significant in the paired samples t-test ($t(223)=-1.942$, p=.054).

Thus, from this first group of analysis, it can be concluded that the differences observed in advertising effectiveness cannot be due to a lack of processing of the advertising stimulus, since both the placements are perceived in an equivalent way in all the experimental groups.

Figure 8a Degree of perception of the dynamic advertising stimulus

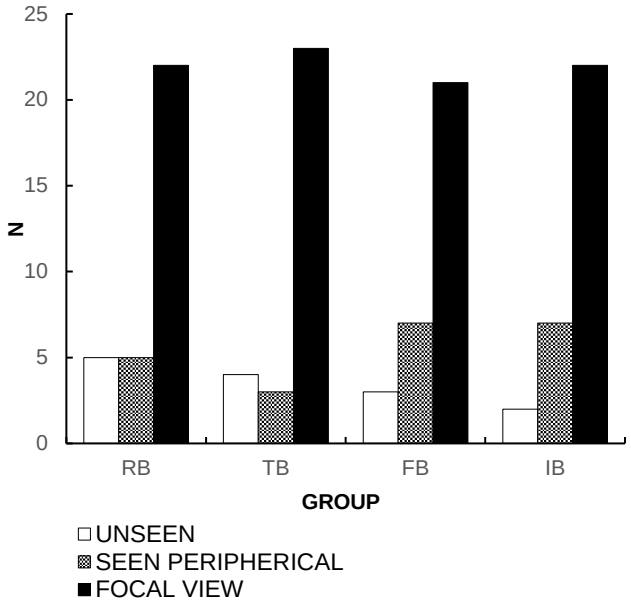
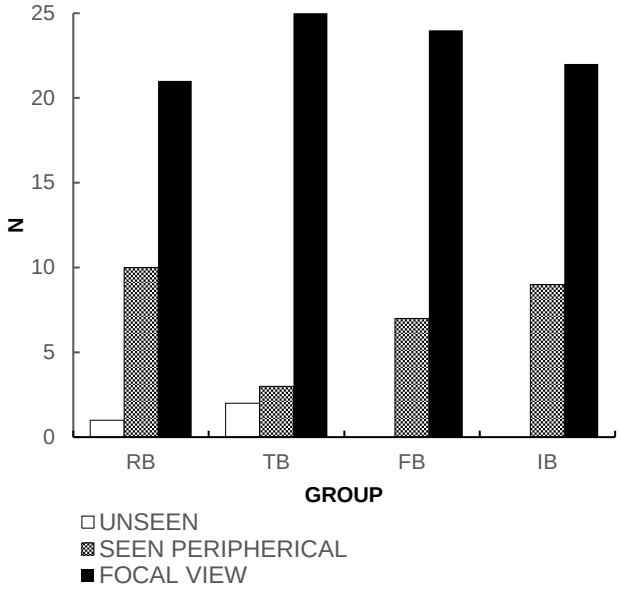
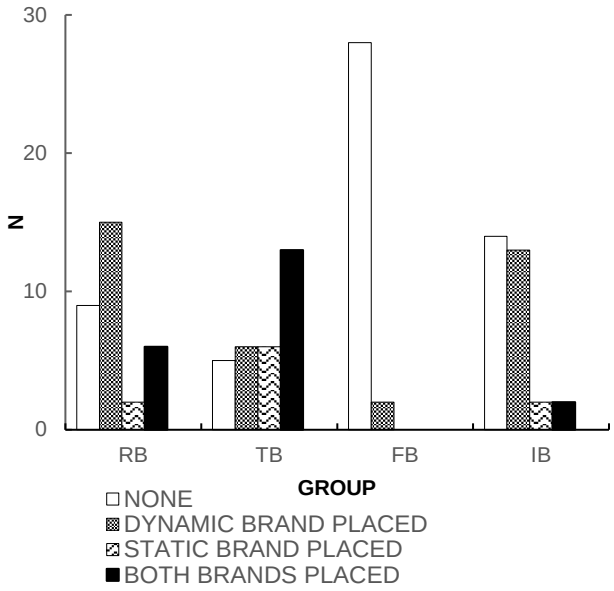


Figure 8b Degree of perception of the static advertising stimulus



Second, it is analyzed the short- and medium-term recall of the brands (RECALLst and RECALLmt variables). There are significant differences between the experimental groups according to the short-term recall of the dynamic brand, the static brand or both ($\chi 2$ (9, N =223) = 61.107, p < ,000) (Figure 9).

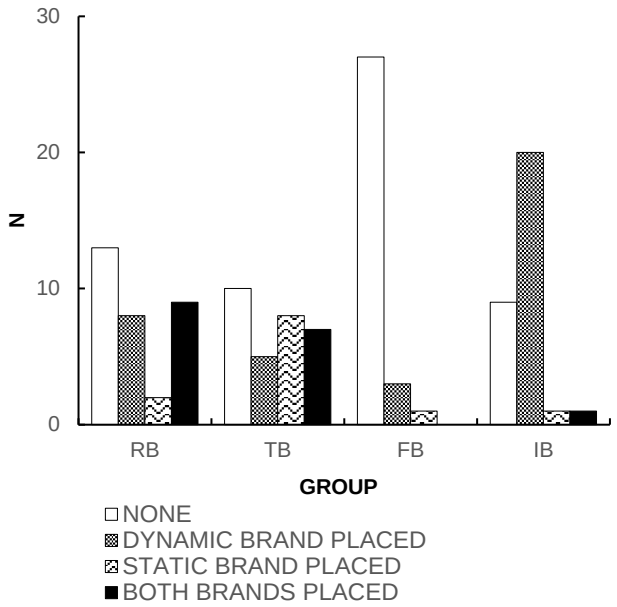
Figure 9 Short-term recall of brand placement



ANOVA allows completing the analysis of the differences in recall between experimental groups (F(3,222)21.797, p=.000). Multiple comparisons in the Scheffe test show the following significant differences between groups at the p<.05 level: between RB and TB-FB; between TB and RB-FB-IB; between FB and RB-TB-IB; between IB and TB-FB. Therefore, according to this post-hoc analysis, there are significant differences between groups, except in the case of the RB and IB comparison. Between these two groups with real brands there are no significant differences. In conclusion, this analysis shows that there are statistically significant differences between the fictitious brands and the real brands. In terms of homogeneous subsets, the Scheffe test allows us to identify three groups: FB / IB-RB / TB. This set of results on the RECALLst variable goes in the direction of the differences found in section 1 (counter-argumentation) according to which real and fictitious brands give rise to differential cognitive and emotional processes.

With respect to medium-term recall, the same phenomena are observed as in short-term recall (χ2 (9, N =224) = 58.839, p < ,000) (Figure 10).

Figure 10 Medium-term recall of brand placement



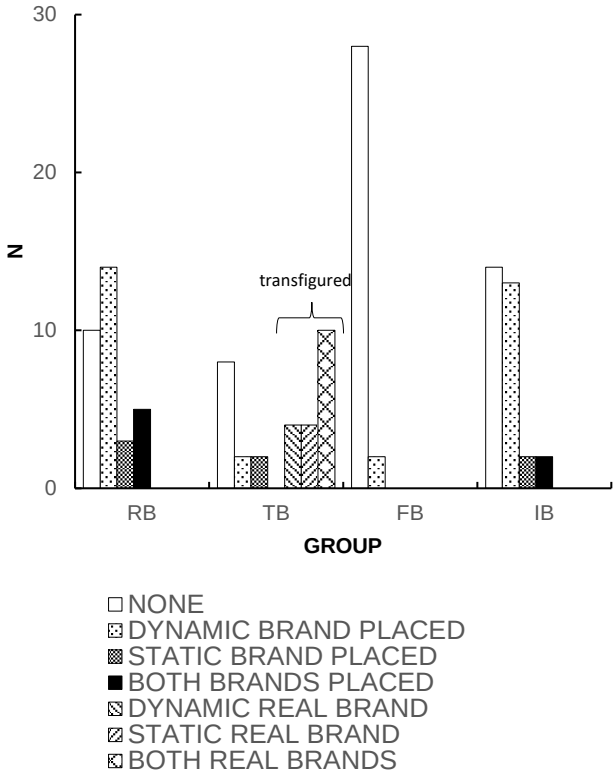
The ANOVA on medium-term recall is also significant (F(3,223)10.186, p=.000) as well as the following multiple comparisons between experimental groups at the p<.05 level: between RB and FB; between ME and FB; between FB and RB-TB.

Overall, it is noteworthy that FB is barely recalled. Also, RB and TB have a similar level of recall.

Third, in the short- and medium-term recall process, there is a phenomenon that only appears in relation to fictitious brands with a real referent of the TB group. We have called it ***transfiguring***. As just analyzed, the variables RECALLst and RECALLmt asked whether the subject remembered the two, dynamic and static brands, placed in the video game he/she had played (Figures 9-10). The TB group has two fictitious brands (G&R and Mark Haniels). However, a significant percentage of the subjects in this group did not remember the fictitious brand to which they had been exposed during the game, but the RB (J&B and Jack Daniels) masked in those fictitious brands through an isomorphic design process between the two types of brands. Figure 11 shows seven response categories in short-term recall: no brand evoked; dynamic brand placed (G&R); static brand placed (Mark Haniels); both brands placed (G&R and Mark Haniels); dynamic real brand (J&B), static real brand (Jack Daniels), both real brands (J&B and Jack Daniels). As Figure 11 shows, only in the TB group does this phenomenon of substitution appear in the recall of the RB by the TB, which should be the

object of recall. These differences are statistically significant (χ2 (18, N =223) = 100.652, p < ,000).

Figure 11 Transfiguring of brands in medium-term recall



This transfiguring phenomenon, observed in short-term recall, is maintained (Figure 12) and intensifies in medium-term recall (χ2 (18, N =223) = 103,891, *p* < ,000). This means that there is an evolution of semantic transfer in the medium-term memory. Subjects who in short-term recall had remembered the TB (G&R, Mark Haniels), change their response in medium-term recall and evoke the real brand with which they maintain an isomorphic link (J&B, Jack Daniels). (Figure 13).

Figure 12 Transfiguration of brands in medium-term recall

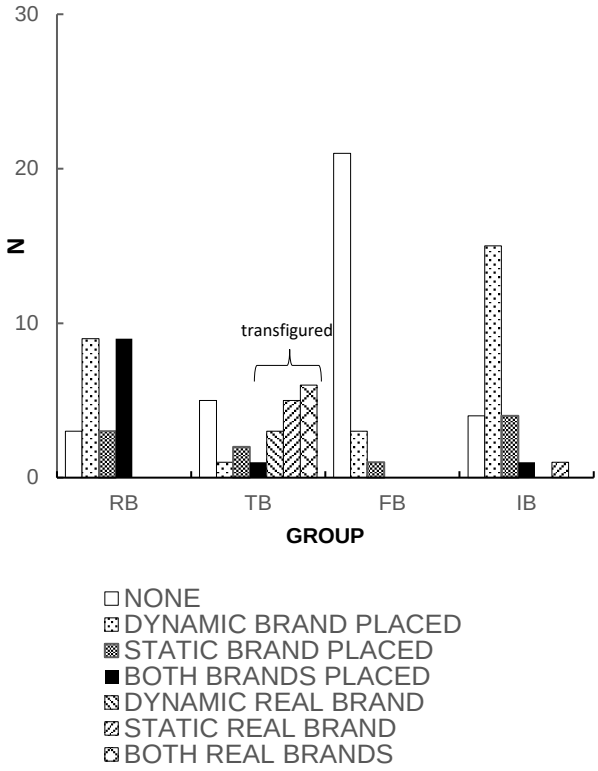
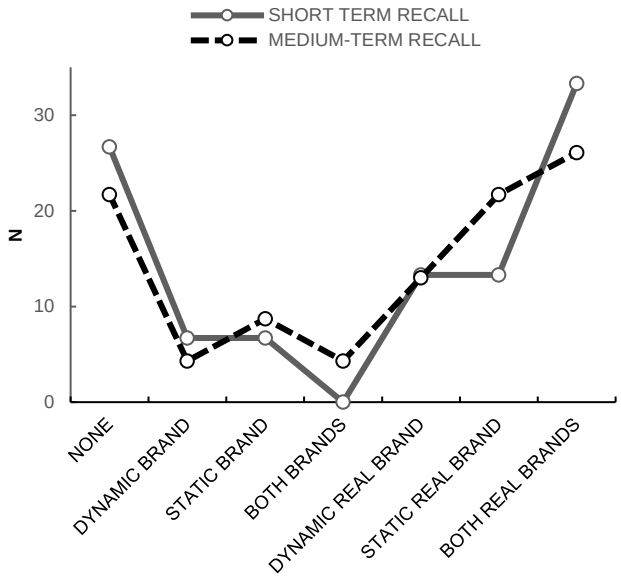


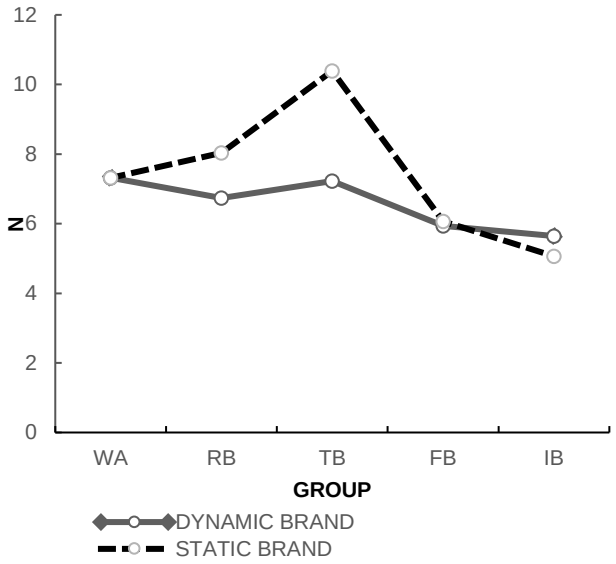
Figure 13 Evolution of transfiguration in the recall of brand placement between the short and medium term in the tb group



Fourth, the analysis of the subjects' recognition of having seen the brands in the game indicates that there are no differences between the groups in the short term (F(3,213)2.486, p=.064) or the medium term (F(3,206)3.181, p=.027). Overall, 68.4% of the subjects recognize the brands placed in the game in the short term and 41.1% in the medium term. As we will see later (variable KNOW), the subjects are well aware of the actual brands placed. The recognition of the brands goes in the same direction and does not constitute an obstacle to the processing and recall of the brands that would be influenced by other factors.

Lastly, and in fifth place, it is analyzed the conative variables of advertising effectiveness. (Figure 14). In the ANOVA there are no significant differences in the purchase intention of the dynamic brands (F(4,273)1.015, p=.401) but there are significant differences for the static brand (F(4,273)6.124, p=.000). As the post hoc tests show, this result is due to the differences appearing between TB and the FB and IB brands ((TB-FB: mean difference, M=4.335, Std.Error=1.165, Sig.=.010; TB-IB: mean difference, M=5.335, Std.Error=1.165, Sig.=.001). In total subjects, purchase intention (PI) is higher for the static brand (N=274; static brand: M=7.36, SD=4.812; dynamic brand: M=6.65, SD=4.413). The paired samples test is significant (t(273)=-3.540, p<.05, r=.84). The relationship of this PI variable to consumption will be discussed below.

Figure 14 Purchase intentions of the brand placements



It is interesting that the subjects intend to buy the TB when it is a brand that does not exist. This is one more piece of information that indicates that part of the players are operating this fictitious brand as if it were the real (masked) brand. Moreover, both types of brands, fictitious and real, obtain similar purchase intention.

Furthermore, it contrasts the purchase intention for TB in relation to FB and IB. As just analyzed, the differences are statistically significant and indicate a higher purchase intention for TB. Once again, this fictitious brand works differently from the other fictitious brand FB. Recall that what separates them is the fact that TB is semantically linked to the real brand.

In the second conative variable (RCP), the subject is asked if they would like to receive a sample of the whisky brands in the videogame (N=257, dynamic brand: yes: 126, no: 131; static brand: yes: 130, no:127). In this variable, none of the statistical analyses show significant differences between the experimental groups (dynamic brand: $F(4,256)1,085$, p=.366; static brand: ($F(4,256)3,732$, p=.006); paired samples t dynamic/static brand: t(256)=1,267, p<.207, r=.874). Regarding this variable subjects were also asked to explain the reasons for their previous response. Responses are categorized into four categories: Don't drink; Don't like it; It's free; Positive attribute. In the statistical analysis of these responses no differences appear between the experimental groups (dynamic brand: ($\chi 2$ (4, N =257) = 4.360, p < ,359); static brand: ($\chi 2$ (4, N =257) = 14.040, p < ,007).

Finally, in a third conative variable (ELEC), The subject is asked whether, at the same price, the subject would choose the brands located in the video game. (N=257, dynamic brand: yes: 76, no: 181; static brand: yes: 110, no: 147). There are no significant statistical differences between the experimental groups (dynamic brand: $\chi 2$ (4, N =257) = 3.027, p < ,553); static brand:

Regarding the explanation of the choice or not of the brand, Responses are classified into 5 categories: Do not drink; Do not like; It's free; Positive attribute; characters drink. In this explanation in the choice of brand there are differences between groups ($\chi 2$ (12, N =256) = 59.212, p < ,000). As can be seen below, when analyzing consumption, these differences in choice are favorable toward the brand Jack Daniels and J&B against Veterano and DYC.

4.3. The advertising effectiveness of interactivity

From the data collected by the eye tracker, two groups of several variables are selected for analysis. As analyzed in the previous section, the degree of perception of both placements during the game is high (Figure 8). It is now a question of further investigating the effects of interactivity with advertising stimuli and its relationship with advertising effectiveness variables. To this end, the type and intensity of interactivity with the two placements is analyzed. On the one hand, it is analyzed the type of exploration and interactivity during gameplay, that is, the degree of integration of the advertising stimulus in the player's interactive activity (DEOI variable). Whether the player interacted with the static placement in a focal or peripheral way. Regarding the dynamic placement, interaction is classified into four categories (0. does not see the bottle; 1. sees it; 2. manipulates it; 3. manipulates it and keeps it in the inventory to use it later in the game). In addition, the total duration of the exploration of static and dynamic placements (DURAFIX variable) and the number of fixations (NFIX variable) of the advertising stimulus are also analyzed. Thus, qualitative and quantitative information is collected on both the type of exploration and interactivity with the advertising stimuli and the intensity and duration of that interaction.

The results of the analysis of interactivity with advertising stimuli show a double dimension of this interactivity. First, from the point of view of the effects of interactivity, the correlation table (Table 3 shows two main results. Together with the high correlation between the perceptual variables collected through the eye tracker, the most outstanding result is that these variables have a high positive correlation with recall, especially in the short term (RECALLst), and do not correlate with attitude towards the brand ($A_{b)}$. Throughout sections 1 and 2, advertising effectiveness results have been presented for both the placements. Overall, the results indicate that effectiveness does not depend on the type of placement, static or dynamic, but on the nature of the brand (real, fictitious, incongruent) in the context of the aesthetics of the narrative content of this video game. The phenomena observed for both static and dynamic placement run parallel.

Second, the results of this research suggest that it is not possible to establish a principle according to which the greater the manipulation of the object, the greater the effectiveness. It is not possible to speak of levels of interactivity but of types and processes of interactivity. There is visual interactivity, in which the subject visually processes the brand.

This is the case of the static placement. There is a dynamic interactivity in which the subject manipulates the product and incorporates it into the content. This is the case of the dynamic placement. The results indicate that dynamic interactivity with the product is not always better than static, visual interactivity. Both types of interactivity are likely to generate advertising effectiveness. What is important is, on the one hand, the way in which the advertising stimulus is processed and, on the other hand, the meaning that the subject attributes to the context of the interaction. With respect to the former, there are two types of processing variables investigated. On the one hand, whether the subject processes the advertising stimulus and explores it in a focal or peripheral way (PERPLA variable). Thus, the qualitative type of interaction. On the other hand, the quantitative degree of interaction (measured by the variables DEOI, DURAFIX, NFIX). The results with both groups of variables indicate that the subject can process the advertising stimulus with a greater or lesser degree of interactivity. Regarding the latter, the interpretation of the interaction context influences the nature of the interactive process with the product and the brand. Thus, whether the brand is real, fictitious, or incongruent conditions the processing and the effects it induces. The interaction process cannot be isolated from the context in which it takes place.

Therefore, the effectiveness of interactivity is not only a question of the modality of the relationship with the product/brand but also of the depth of processing of the stimulus. Some subjects process the static placement superficially, others deeply. It is the same with the dynamic placement. There are subjects who look at it, others who explore it, others who manipulate it, others who take it to the inventory.

Table 3 Correlations between the variables of perception of advertising stimuli and the variables ab and recall in the short and medium term

4.4. Previous relationships with the product, the brand and the format

A set of additional variables have been included in this research to test their possible influence on the degree of advertising effectiveness of the brands placed and interactivity.

First, two variables are analyzed, the degree of knowledge and familiarity of the participants with the actual brands of the product placed. In the first variable, participants are asked to recall all the whiskey brands they know (KNOW). In their spontaneous recall, 68.9% mention J&B, 67.4% Jack Daniels, 57% DYC and 44% Veteran. This brand knowledge did not differ between experimental groups (J&B: $\chi 2$ (4, N =235) = 13,717, p < ,008; Jack Daniels: $\chi 2$ (4, N =235) = 16,349, p < ,006; DYC: $\chi 2$ (4, N =235) = 5,917, p < ,205; Veterano: $\chi 2$ (4, N =235) = 7,985, p < ,092).

In the second variable (FAM), the participant is asked for his or her degree of familiarity with the brands in this research (not at all familiar, not very familiar, somewhat familiar, very familiar). Globally, they are familiar with the brands included in the study. 83.8% of participants (N=205) are familiar or very familiar with J&B, 76.2% with Jack Daniels, 81.9% with DYC, 49.6% with Veterano. Statistical analysis shows that there are no differences between the experimental groups. (J&B: $\chi 2$ (4, N =205) = 13,666, p < ,323; Jack Daniels: $\chi 2$ (4, N =205) = 14,519, p < ,269; DYC: $\chi 2$ (4, N =205) = 20,112, p < ,065; Veterano: $\chi 2$ (4, N =205) = 28,361, p < ,006).

Secondly, three variables are investigated that inform us of participants' relationships with the purchase of the product and the brand (CONSUM), as well as their involvement with the product and the brand (INVOL). In terms of consumption, the participants who responded to this question (N=205) stated that they either never consumed whisky (59%) or that they only consumed from time to time (41%). There are no statistical differences between the groups ($\chi 2$ (4,N=205)=12,290, p<,015). There are also no statistically significant differences between groups (N=205, M=.2218, SD=,1335; $\chi 2$ (56, N=205) = 38,202, p < ,967) and brand (N=205, M=.2543, SD=,1013; $\chi 2$ (140, N =205) = 139,979, p < ,485) in product involvement.

Table 4 shows the correlations between the above variables.

Table 4 Correlations between the variables of knowledge, familiarity, consumption and involvement with the product and brand

There are also two other variables that investigate the relationship with video game liking (MEAF) and gamer behavior (GAMER). There are no statistically significant differences between the groups in these two variables. (N=205, MEAF: *M*=,43, *SD*=,2165; $\chi 2$ (60, N =205) = 57,111, p < ,582; GAMER: *M*=,35, *SD*=,1445, $\chi 2$ (32, N =205) = 53,698, p < ,100). Both variables are highly correlated ($r(1)$=,717, p<.01).

Finally, a statistical regression analysis is performed to verify whether the previous double set of moderating variables had an influence on the advertising effectiveness variables A_b, RECALL and RECOG.

In a first analysis, the participant's relationships with the brand and the product were explored. The regression analysis shows that the variables knowledge, familiarity, and involvement are not predictor variables of attitude towards the brand. The stepwise regression model indicates that the predictor variable CONSUM (Whisky consumption), is the only variable that influences the dependent output variable A_b (Table 5).

Table 5 Consumption regression on the attitude towards the brand

In addition, different simple and multiple regression analyses have been carried out to investigate whether the variables KNOW-FAM-CONSUM-INVOLb-INVOLp are positively related to both recall and recognition. Regression analyses were also carried out to verify whether the variables related to the format (MEAF and GAME) influence attitude towards the brand, recall and recognition. These statistical analyses are not included here because none of these two blocks of analysis have yielded statistically significant results, so it can be concluded that out of the seven predictor variables explored, only one variable, consumption, is positively related to one of the three dependent variables of advertising effectiveness (attitude towards the brand, recall, recognition). As Table 5 shows, this variable CONSUM predicts only part of the variability of the dependent variable A_b. Therefore, it follows from the above analyses that there are no statistically significant differences between the experimental groups in these two sets of moderator variables. Therefore, the differences observed in the previous sections in advertising effectiveness and interactivity should be interpreted as a function of the type and characteristics of the brands placed in the different versions of the video game.

5. Discussion and conclusions

In the first place, the analysis of counterargument led to the identification of different acceptance responses to real and fictional brands. According to some studies, gamers appreciate brand or product placement when it contributes to a realistic setting (Molesworth, 2006; Nelson *et al.,* 2004). Here it must be noted that realistic is not the same as real. For a setting to be realistic, it must be perceived as plausible, i.e., the brand must blend into the content, contributing to the aesthetics of the video game. The lack of incongruency that characterizes realism enhances the player's immersive experience. Proof of this is the fact that awareness of a real brand in the fictional context of advertainment does not add to plausibility but to dissonance instead. This research provides results in that direction. The levels of irritation, intrusiveness and incongruency toward real brands are higher when a brand is placed in an inappropriate context. The response to incongruent brands reflects this phenomenon even more sharply. This is in line with the findings of Hernandez and collaborators (2004), showing how irritation, intrusiveness and incongruency influence brand attitude in a negative way. It is also consistent with studies that show that the higher the congruency between placement and setting, the higher the advertising effectiveness(Chang *et al.,* 2010). Also, the phenomenon of counterargument triggered by the presence of real brands in fiction can be related to the negative effects of disclosing brand placement and the legislative regulations in force (Spielvogel *et al.,* 2021; van Reijmersdal, 2016). In both cases, there is a mismatch and dissonance between the awareness of brand presence with marketing/persuasion purposes and the context of the activity with which the subjects interact for entertainment only. Moreover, from an intertextual perspective (Russell, 2019), counterargument to real brands, and especially to incongruent brands, illustrates the connection between context and the referential nature of brands. As shown in other research projects (Gillespie *et al.,* 2018), the incongruency experienced by gamers between the referential nature of the brand placed and the storyline, as defined by the narrative in a specific context, influences how the brand is assessed.

Secondly, brand acceptability has effects on advertising effectiveness. In this study, a higher level of counterargument to real brands triggers a more negative attitude toward them in the context of advertainment. In terms of cognitive effectiveness, fictional brands operate differently according to the type of fictional referent. Short- and medium-term recall is similar in transfigured brands and in real brands – a positive result for the placement of

transfigured fictional brands in marketing. It must be noted that, while the subjects were already familiar with real brands, their only contact with transfigured brands was during the game in the course of research. As to fictional brands, since they are not anchored in any real brands of reference, they are barely remembered. The question is what would happen in case of longer exposure. There is not enough data in the literature to answer this question. Indirect data from experiences in reverse placement suggest that the effectiveness of fictional brands could be higher if the time of exposure were longer. An example of this is Duff, a fictional brand that was successfully transferred to the real world and marketed by a firm that observed that the brand's introduction in the market was faster than that of other new brands (Kristjánsson, 2017; Muzellec *et al.,* 2013).

Thirdly, the research revealed a little-known transfiguration phenomenon with theoretical and practical implications. No previous study had shown how transfiguration works psychologically in interactive advertainment, although some authors had put forward similar concepts. Muzellec, Lynn, and Lambkin (2012), for instance, use the term 'proto-brands' for brands created in the virtual world that may be used in the real world. Vedrashko (2006) suggests that advertisers may achieve a compelling presence in video games by creating fake brands or proxies with strong associative links that nevertheless are not bound to the original brands in the real world. For this author "a proxy is the brand's costume at the masking ball where showing up in daily business attire is considered bad taste"(Vedrashko, 2006, 57) . Along similar lines, Martí et al. (2010) and Álvarez et al. (2014) refer to "masked brands". None of these theoretical concepts had been empirically investigated with users. This prevented bringing to light the process of semantic transfer that occurs in transfiguration. These concepts are useful, but they do not depict transfiguration accurately. This research shows that in transfiguration, brands are not hidden or masked but have changed their appearance instead. For transfigured brands to be effective, they have to be perceived by the receiver; for this, the (real) brand has to be shown, but in a transfigured form. Through transfiguration, the real brand is adapted to the context where it is inserted. Since video games deploy fictional worlds, real brands have to adapt by looking like fictional brands. Transfiguration is a chameleon strategy. Chameleons change their skin color and pattern to blend into the environment and thus fulfil their goals in terms of adaptation. As in the case of chameleons, transfiguration involves a change in appearance but not in essence. For transfiguration – and advertising effectiveness – to occur, the receiver must make the

semantic connection between the fictional brand (signifier) and the real brand (signified). Just like chameleons, who may appear in different colors but they are still chameleons.

Some studies have analyzed copycat brands, i.e., brands that copy, mimic or are made deliberately similar to established brands in the market (Van Horen and Pieters, 2012). In our research, by applying some of the Gestalt principles of perception, a graph isomorphism was created between the real and the transfigured brands. The transfiguration was successful to the extent that a significant number of the subjects established the semantic connection between the two types of brands and the transfigured fictional brand benefitted from the referential anchorage offered by the real brand. As a result, the recall of transfigured brands was more acceptable than that of the fictional brands that lacked a semantic frame of reference. This cognitive effectiveness of transfigured brands adds to their affective effectiveness. Transfigured brands do not trigger counterargument and produce brand attitudes that are acceptable when compared to other types of brands. A possible interpretation of this result can be found in the suggestion of Nelson, Keum, and Yaros (2004), for whom fake brands might offer a chance for imagination and could add to the entertainment value of the game. It may be concluded, then, that transfigured fictional brands are an effective tool for brand placement in narrative advertainment. Their positive effects, as revealed in this study, may be a platform for reverse placement.

In the fourth place, the research results enrich the initial view of interactivity with content and brand. H3, whereby dynamic interactivity was more effective than static interactivity, was not validated by the results.

The interactive behavior of the gamers was a complex phenomenon that revealed that the focus of interactivity should be not on the object with which they interact but on the intersection between the object's properties and the cognitive processes triggered during the interaction with the object and the brand. The results show that both static and dynamic interactions can lead to advertising effectiveness. So far, the literature has focused on the analysis of the executional characteristics of product placement, such as modality, prominence, and repetition (Russell, 2019). This study, however, suggests that the modality of the interaction is less relevant than the depth of cognitive processing of advertising stimuli. Exploration and interaction with product and brand during gameplay can be merely visual or they can include object manipulation. Both types of placements can be equally useful, leading to similar levels of advertising effectiveness. Moreover, the results add evidence that supports

the concept of interactivity as resulting from the intersection between the interactive characteristics of the medium and user responsiveness. If interactivity and advertising effectiveness depended solely on the former, a dynamic object would lead to higher levels of interactivity and effectiveness. This is not the case, however, as responsiveness has to be considered as well. Gamer expectations are similar for static and dynamic objects; as a result, exploration and assessment actions trigger similar levels of cognitive processing.

Finally, the results of this research project suggest two avenues for further research. On the one hand, the study of transfigured fictional brands could be extended to include other variables and factors that may trigger the semantic transfer from real brands, as it was found to occur in this study. On the other hand, regarding the effects of fictional brands without a real referent, longer interactions with advertainment could be studied to check whether longer exposure to fictional brands affects the variables of advertising effectiveness.

References

Aaker, D.A. and Bruzzone, D.E. (1985), "Causes of Irritation in Advertising", *Journal of Marketing*, Vol. 49 No. 2, pp. 47-57. doi.org/10.1177/002224298504900204

Alvarado, A., Cavazos, J. and Vázquez, R. (2014), "Effects of real and masked brands placement on consumer behavior: An exploratory experiment", *Estudios Gerenciales*, Vol. 24 No. 133, pp. 327-335. doi.org/10.1016/j.estger.2014.05.004

Arias-Bolzmann, L., Chakraborty, G. and Mowen, J.C. (2000), "Effects of Absurdity in Advertising: The Moderating Role of Product Category Attitude and the Mediating Role of Cognitive Responses", *Journal of Advertising*, Vol. 29 No. 1, pp. 35-49. doi.org/10.1080/00913367.2000.10673602

Balasubramanian, S.K. (1994), "Beyond Advertising and Publicity: Hybrid Messages and Public Policy Issues", *Journal of Advertising*, Vol. 23 No. 4, pp. 29-46. doi.org/10.1080/00913367.1943.10673457

Balasubramanian, S.K., Karrh, J. and Patwardhan, H. (2006), "Audience response to product placements: An integrative framework and future research agenda", *Journal of Advertising*, Vol. 35 No. 3, pp. 115-141. doi.org/10.2753/JOA0091-3367350308

Beattie, A.E. and Mitchell, A.A. (1985), "The Relationship between Advertising Recall and Persuasion: An Experimental Investigation", Alwitt L.F. and Mitchell, A. A. (Eds.), *Psychological Processes and Advertising Effects: Theory, Research, and Application*, Routledge, London, pp. 129-155.

Chang, Y., Yan, J., Zhang, J. and Luo, J. (2010), "Online In-Game Advertising Effect: Examining the Influence of a Match Between Games and Advertising", *Journal of*

Interactive Advertising, Vol. 11 No. 1, pp. 63-73. doi.org/10.1080/15252019.2010.10722178

Charry, K.M. (2014), "Product placement and the promotion of healthy food to pre-adolescents",*International Journal of Advertising*, Vol. 33 No. 3, pp. 599-616. doi.org/10.2501/IJA-33-3-599-616

Gati, I., and Tversky, A. (1987), "Recall of common and distinctive features of verbal and pictorial stimuli", *Memory and Cognition*, Vol. 15 No. 2, pp. 97-100. doi.org/10.3758/BF03197020

Gillespie, B., Muehling, D.D. and Kareklas, I. (2018), "Fitting product placements: Affective fit and cognitive fit as determinants of consumer evaluations of placed brands", *Journal of Business Research*, Vol. 82, pp. 90-102. doi.org/10.1016/j.jbusres.2017.09.002

Gupta, P.B. and Lord, K.R. (1998), "Product Placement in Movies: The Effect of Prominence and Mode on Audience Recall", *Journal of Current Issues & Research in Advertising*, Vol. 20 No. 1, pp. 47-59. doi.org/10.1080/10641734.1998.10505076

Ha, L. (1996), "Advertising Clutter in Consumer Magazines: Dimensions and Effects", *Journal of Advertising Research*, Vol. 34 No. 4, pp. 76-84.

Hang, H. and Auty, S. (2011), "Children playing branded video games: The impact of interactivity on product placement effectiveness", *Journal of Consumer Psychology*, Vol. 21 No. 1, pp. 65-72. doi.org/10.1016/j.jcps.2010.09.004

Hernandez, M.D., Chapa, S., Minor, M.S., Maldonado, C. and Barranzuela, F. (2004), "Hispanic Attitudes Toward Advergames", *Journal of Interactive Advertising*, Vol. 5 No. 1, pp. 74-83. doi.org/10.1080/15252019.2004.10722095

Homer, P.M. (1990), "The Mediating Role of Attitude toward the Ad: Some Additional Evidence", *Journal of Marketing Research*, Vol. 27 No. 1, pp. 78-86 doi.org/10.2307/3172553

Homer, P.M. (2009), "Product Placements: The Impact of Placement Type and Repetition on Attitude", *Journal of Advertising*, Vol. 38 No. 3, pp. 21-32. doi.org/10.2753/JOA0091-3367380302

Lee, M. and Faber, R.J. (2007), "Effects of Product Placement in On-Line Games on Brand Memory: A Perspective of the Limited-Capacity Model of Attention", *Journal of Advertising*, Vol. 36 No. 4, pp. 75-90. doi.org/10.2753/JOA0091-3367360406

Li, H., Edwards, S.M. and Lee, J.H. (2002), "Measuring the intrusiveness of advertisements: Scale development and validation", *Journal of Advertising*, Vol. 31 No. 2, pp. 37-47. doi.org/10.1080/00913367.2002.10673665

Martí-Parreño, J., Bermejo-Berros, J. and Aldás-Manzano, J. (2017), "Product Placement in Video Games: The Effect of Brand Familiarity and Repetition on Consumers' Memory", *Journal of Interactive Marketing*, Vol. 38, pp. 55-63. doi.org/10.1016/j.intmar.2016.12.001

Martí-Parreño, J., Aldás-Manzano, J., Currás-Pérez, R. and Sanchez-García, I. (2010), "El emplazamiento de producto: conceptualización, nuevos formatos y efectos sobre el consumidor", *Teoria y Praxis*, Vol. 8, pp. 113-136.

Martí-Parreño, J., Currás-Pérez, R. and Sánchez-García, I. (2012), "New advertising formats: advergames as a marketing communication tool", *Cuadernos de Gestión*, Vol. 12, pp. 43-58. doi.org/10.5295/cdg.100236jm

Molesworth, M. (2006), "Real brands in imaginary worlds: investigating players' experiences of brand placement in digital games", *Journal of Consumer Behaviour*, Vol. 5 No. 4, pp. 355-366. doi.org/10.1002/cb.186

Muzellec, L., Lynn, T. and Lambkin, M. (2012), "Branding in fictional and virtual environments: Introducing a new conceptual domain and research agenda", *European Journal of Marketing*, Vol. 46 No. 6, pp. 811-826. doi.org/10.1108/03090561211214618

Muzellec, L., Kanitz, C. and Lynn, T. (2013), "Fancy a coffee with Friends in 'Central Perk'? Reverse product placement, fictional brands and purchase intention", *International Journal of Advertising*, Vol. 32 No. 3, pp. 399-417. doi.org/10.2501/ija-32-3-399-417

Nairne, J.S., Neath, I., Serra, M. and Byun, E. (1997), "Positional Distinctiveness and the Ratio Rule in Free Recall", *Journal of Memory and Language*, Vol. 37 No. 2, pp. 155-166. doi.org/10.1006/jmla.1997.2513

Nelson, M.R., Keum, H. and Yaros, R.A. (2004), "Advertainment or Adcreep Game Players' Attitudes toward Advertising and Product Placements in Computer Games", *Journal of Interactive Advertising*, Vol. 5 No. 1, pp. 3-21. doi.org/10.1080/15252019.2004.10722090

Ozturk, R.G. (2017), "The Integration of Entertainment and Advertising", Khosrow-Pour, M. (Ed.). *Advertising and Branding: Concepts, Methodologies, Tools, and Applications*, IGI Global, Hershey, PA, pp. 506-527. doi.org/10.4018/978-1-5225-1793-1.ch023

Perse, E.M. (1986), "Soap opera viewing patterns of college students and cultivation", *Journal of Broadcasting and Electronic Media*, Vol. 30 No. 2, pp. 175-193. doi.org/10.1080/08838158609386618

Rafaeli, S. (1988), "Interactivity: From new media to communication", *Sage Annual Review of Communication Research: Advancing Communication Science*, Vol. 16, pp. 111-134.

Rafaeli, S. and Ariel, Y. (2012), "Assessing interactivity in computer-mediated research", Johnson A.N., McKenna, K.Y.A., Postmes, T. and Reips, U.D. (Eds.), *Oxford Handbook of Internet Psychology*, Vol. 1, Oxford University Press. doi.org/10.1093/oxfordhb/9780199561803.013.0006

Russell, C.A. (2002), "Investigating the Effectiveness of Product Placements in Television Shows: The Role of Modality and Plot Connection Congruence on Brand Memory and Attitude", *Journal of Consumer Research*, Vol. 29 No. 3, pp. 306-318. doi.org/10.1086/344432

Russell, C.A. (2007), “Advertainment : Fusing Advertising and Entertainment.”, University of Michigan, Yaffe Center., June, pp. 1-23, available at: https://dra.american.edu/islandora/object/auislandora%3A72162/datastream/PDF/view

Russell, C.A. (2019), “Expanding the Agenda of Research on Product Placement: A Commercial Intertext”, *Journal of Advertising*, Vol. 48 No. 1, pp. 38-48. doi.org/10.1080/00913367.2019.1579690

Russell, C.A. and Stern, B.B. (2006), “Consumers, characters, and products: A Balance Model of Sitcom Product Placement Effects”, *Journal of Advertising*, Vol. 35 No. 1, pp. doi.org/10.2753/JOA0091-3367350101

Schneider, L.P., Systems, B. and Cornwell, T.B. (2005), “Cashing in on crashes via brand placement in computer games”, *International Journal of Advertising*, Vol. 24 No. 3, pp. 321-343. doi.org/10.1080/02650487.2005.11072928

Spears, N. and Singh, S.N. (2004), “Measuring Attitude toward the Brand and Purchase Intentions”, *Journal of Current Issues & Research in Advertising*, Vol. 26 No. 2, pp.53-66. doi.org/10.1080/10641734.2004.10505164

Spielvogel, I., Naderer, B. and Matthes, J. (2021), “Disclosing product placement in audiovisual media services: a practical and scientific perspective on the implementation of disclosures across the European Union”, *International Journal of Advertising*, Vol. 40 No. 1, pp. 5-25. doi.org/10.1080/02650487.2020.1781478

Taylor, S.E. and Thompson, S.C. (1982), “Stalking the elusive «vividness» effect”, *Psychological Review*, Vol. 89 No. 2, pp. 155-181. doi.org/10.1037/0033-295X.89.2.155

Team Gotham. (2016), “The Guest”, https://store.steampowered.com/app/402040/The_Guest/

Van Horen, F. and Pieters, R. (2012), “Consumer evaluation of copycat brands: The effect of imitation type”, *International Journal of Research in Marketing*, Vol. 29 No. 3, pp. 246-255. doi.org/10.1016/j.ijresmar.2012.04.001

van Reijmersdal, E.A. (2016), “Disclosing Brand Placements in Movies”, *Journal of Media Psychology*, Vol. 28 No. 2, pp. 78-87. doi.org/10.1027/1864-1105/a000158

Varela, J., Rial, A., Braña, T. and Flor, M. (1998), “Presentación del EIM un instrumento para medir la implicación de los consumidores con marcas comerciales”, *Anuario de psicología*, Vol. 29 No. 1, pp. 17-34. doi.org/https://doi.org/10.1344/%25x

Vedrashko, I. (2006), “Advertising in computer games”, Massachusetts Institute of Technology, available at: http://www.gamesbrandsplay.com/files/vedrashko_advertising_in_games.pdf

Wang, J. and Calder, B.J. (2006), “Media Transportation and Advertising”, *Journal of Consumer Research*”, Vol. 33 No. 2, pp. 151-162. doi.org/10.1086/506296

Zaichkowsky, J.L. (1994), "The Personal Involvement Inventory: Reduction, Revision, and Application to Advertising", *Journal of Advertising*, Vol. 23 No. 4, pp. 59-70. doi.org/10.1080/00913367.1943.10673459

Table 1 correlations between the variables of acceptance of the brand placement

	IRRIdp	IRRIsp	INTRUdp	INTRUsp	CONGRUdp	CONGRUsp
IRRIdp		.923**	.415**	.330**	-.272**	-.166
IRRIsp	.923**		.401**	.344**	-.279**	-.196*
INTRUdp	.415**	.401**		.723**	-.384**	-.298**
INTRUsp	.330**	.344**	.723**		-.253**	-.188*
CONGRUdp	-.272**	-.279**	-.384**	-.253**		.840**
CONGRUsp	-.166	-.196*	-.298**	-.188*	.840**	

p < .05*; p < .01**

Table 2a Regression of acceptance variables on attitude towards the brand

	R²	***F***	***B***	***SE B***	***β***	***t***	***p***
IRRITdp ®$A_b$dp	.169	24.854 (1,222)					.000
Intercept (Constant)			4.849	.209		23.233	.000
Predictor (IRRId)			-.396	.079	-411	-4.985	.000
INTRUdp ® $A_b$dp	.716	308.053 (1.222)					.000
Intercept (Constant)			5.368	.095		56.616	.000
Predictor (INTRUdp)			-.623	.036	-.846	-17.551	.000
CONGRUdp ® $A_b$dp	.078	10.350 (1. 222)					.002
Intercept (Constant)			3.295	.194		17.020	.000
Predictor (CONGRUdp)			.246	.076	.280	3.217	.002
IRRIdp-INTRUdp ® $A_b$dp	.721	24.854 (1.222)					.000
Intercept (Constant)			5.487	.128		42.754	.000
Predictor (IRRITdp)			-.070	.051	-.073	-1.374	.172
Predictor (INTRUdp)			-.601	.039	-.816	-15.456	.000
IRRIdp-INTRUdp-CONGRUdp ® $A_b$dp	.724	104.959 (1.222)					.000
Intercept (Constant)			5.676	.201		28.215	.000
Predictor (IRRIdp)			-.078	.051	-.081	-1.528	.129
Predictor (INTRUdp)			-.616	.041	-.837	-15.102	.000
Predictor (CONGRUdp)			-.056	.046	-.064	-1.213	.227
IRRIsp ® $A_b$sp	.088	11.754 (1.222)					.001
Intercept (Constant)			5.226	.267		19.576	.000
Predictor (IRRIsp)			-.352	.103	-.296	-3.428	.001
INTRUsp ® A_b*sp*	.698	282.334(1.222)					.000
Intercept (Constant)			6.169	.120		51.385	.000
Predictor (INTRUsp)			-.869	.052	-.836	-16.803	.000
CONGRUsp ® $A_b$sp	.505	10.638(1.222)					.000
Intercept (Constant)			4.174	.264		15.823	.000
Predictor (CONGRUsp)			.079	.099	.072	.799	.000
IRRIsp-INTRUsp ® $A_b$sp	.689	140.073(1.221)					.000
Intercept (Constant)			6.192	.166		37.290	.000
Predictor (IRRIsp)			-.012	.063	-.010	-.196	.845
Predictor (INTRUsp)			-.865	.055	-.832	-15.649	.000
IRRIsp-INTRUsp-CONGRUsp® $A_b$sp	.706	96.137(1.220)					.000
Intercept (Constant)			6.504	.240		27.096	.000
Predictor (IRRIsp)			-.028	.063	-.024	-.449	.654
Predictor (INTRUsp)			-.878	.055	-.844	-15.888	.000
Predictor (CONGRUsp)			-.100	.056	-.091	-1.787	.000

Table 2b Regression of the acceptance variables on recall and recognition

	R^2	*F*	*B*	*SE B*	*β*	*t*	*p*
$A_b$dp ® RECALLst	.012	1.462(1.221)					.229
Intercept (Constant)			.421	.463		.909	.365
Predictor (Ab d)			.142	.117	.109	1.209	.229
*A_b*sp ® *RECALLst*	.055	7.056(1.221)					.009
Intercept (Constant)			-.067	.401		-.167	.868
Predictor (Ab s)			.237	.089	.235	2.656	.009
*A_b*sp-*A_b*dp ® *RECALLmt*	.080	5.288(1.205)					.006
Intercept (Constant)			.682	.443		1.54	.126
Predictor ($A_b$sp)			.363	.113	.375	3.221	.002
Predictor ($A_b$dp)			-.355	.143	-.288	-2.474	.015
*A_b*dp ® *RECOGst*	.020	2.276(1.221)					.134
Intercept (Constant)			.544	.471		1.154	.251
Predictor ($A_b$dp)			.18	.119	.141	1.509	.134
*A_b*sp ® *RECOGst*	.068	8.184(1.221)					.015
Intercept (Constant)			.1	.41		.243	.809
Predictor ($A_b$sp)			.261	.091	.261	2.861	.015
*A_b*dp ® *A_b*sp ® *RECOGmt*	.060	3.343(2.204)					.039
Intercept (Constant)			.559	.545		1.026	.307
Predictor ($A_b$dp)			-.313	.185	-.223	-1.693	.094
Predictor ($A_b$sp)			.376	.145	.34	2.582	.011
*IRRId-INTRU*dp-*CONGRU*dp ® *RECALL*st	.057	2.400(3.219)					.071
Intercept (Constant)			1.847	.48		3.85	.000
Predictor (IRRIdp)			-.128	.122	-.103	-1.049	.296
Predictor (INTRUdp)			-.183	.098	-.193	-1.875	.063
Predictor (CONGRUdp)			-.052	.11	-.046	-.472	.638
*IRRIs-INTRU*sp-*CONGRU*sp ® *RECALL*st	.065	2.774(3.219)					.044
Intercept (Constant)			1.644	.435		3.779	.000
Predictor (IRRIsp)			-.138	.114	-.116	-1.213	.228
Predictor (INTRUsp)			-.194	.1	-.185	-1.941	.055
Predictor (CONGRUsp)			.025	.101	.023	.251	.802
*IRRITdp-INTRUdp-CONGRU*dp ® *RECOG*st	.08	3.187(3.210)					.027
Intercept (Constant)			2.564	.489		5.239	.000
Predictor (IRRITdp)			-.053	.131	-.041	-.4	.690
Predictor (INTRUdp)			-.243	.101	-.261	-2.398	.018
Predictor (CONGRUdp)			-.259	.113	-.229	-2.286	.024
*IRRIs-INTRU*sp-*CONGRU*sp ® *RECOG*st	.075	2.978(3.210)					.035
Intercept (Constant)			2.304	.442		5.214	.000
Predictor (IRRIsp)			-.088	.125	-.072	-.706	.482
Predictor (INTRUsp)			-.241	.106	-.233	-2.286	.024
Predictor (CONGRUsp)			-.142	.103	-.129	-1.371	.173

Table 3 Correlations between the variables of perception of advertising stimuli and the variables ab and recall in the short and medium term

	A_b dp	A_b sp	REC st	REC mt	PERPLA dp	PERPLA sp	DEOI dp	DEOI sp	DUFI dp	DUFI sp	NFIX dp	NFIX sp
$A_b$dp		.691**	-.034	-.126	.110	.005	.160	.125	.057	-.039	.045	-.149
$A_b$sp	.691**		.047	.012	.168	.116	.217*	.259*	.188	.234*	.113	.123
RECst	-.034	.047		.588**	.230*	.220*	.371**	.778**	.521**	.734**	.253*	.528**
RECALLmt	-.126	.012	.588**		.199*	.143	.194	.210*	.238	.418**	.053	.312**
PERPLAdp	.110	.168	.230*	.199*		.351**	.932**	.170	.317*	.179	.294*	-.086
PERPLAsp	.005	.116	.220*	.143	.351**		.071	.077	.341**	.315**	.252*	.343**
DEOIdp	.160	.217*	.371**	.194	.932**	.071		.441**	.398**	.322**	.302*	.038
DEOIsp	.125	.259*	.778**	.210*	.170	.077	.441**		.475**	.789**	.242	.549**
DUFIdp	.057	.188	.521**	.238	.317*	.341**	.398**	.475**		.648**	.752**	.521**
DUFIsp	-.039	.234*	.734**	.418**	.179	.315**	.322**	.789**	.648**		.281*	.767**
NFIXdp	.045	.113	.253*	.053	.294*	.252*	.302*	.242	.752**	.281*		.411**
NFIXsp-	-.149	.123	.528**	.312**	-.086	.343**	.038	.549**	.521**	.767**	.411**	

p < .05; p < .01**

Note: A_b dp and A_b sp (Brand Attitude toward Dynamic and Static stimuli); RECst and RECmt (short- and medium-term recall of the brands); PERPLAdp and PERPLAsp (Degree of perception of dynamic and static placement); DEOIdp and DEOIsp (Degree of integration of dynamic and static placement); DUFIdp and DUFIsp (Total duration of fixation dynamic and static placement); NFIXdp and NFIXsp (Number of fixations in dynamic and static placement).

Table 4 Correlations between the variables of knowledge, familiarity, consumption and involvement with the product and brand.

	KNOW	KNOW RBdp	KNOW RBsp	KNOW IBdp	KNOW IBsp	FAM RBdp	FAM RBsp	FAM IBdp	FAM IBsp	CONS	INVOL p	INVOL b
KNOW-n		.477**	.411**	.449**	.153	.250*	.254**	.237*	.058	.173	.077	.085
KNOW-RBdp	.477**		.491**	.141	-.061	.066	.012	.023	-.049	.163	-.129	-.021
KNOW-RBsp	.411**	.491**		-.021	.132	.049	.216	.068	.001	.059	.024	.059
KNOW-IBdp	.449**	.141	-.021		.175	-.052	-.098	.101	.148	-.123	.068	-.003
KNOW-IBsp	.153	-.061	.132	.175		-.185	-.024	.075	-.024	.080	.285*	.054
FAM-RBdp	.250*	.066	.049	-.052	-.185		.776**	.742**	.276**	.086	.209*	.267**
FAM-RBsp	.254**	.012	.216	-.098	-.024	.776**		.713**	.235*	.207*	.292**	.320**
FAM-IBIdp	.237*	.023	.068	.101	.075	.742**	.713**		.189	.112	.315**	.275**
FAM-IBsp	.058	-.049	.001	.148	-.024	.276**	.235*	.189		.041	.351**	.497**
CONS	.173	.163	.059	-.123	.080	.086	.207*	.112	.041		.397**	.233*
INVOLp	.077	-.129	.024	.068	.285*	.209*	.292**	.315**	.351**	.397**		.681**
INVOLb	.085	-.021	.059	-.003	.054	.267**	.320**	.275**	.497**	.233*	.681**	

p < .05; p < .01**

Note: KNOW-n (number of brands known); KNOW-RBdp and KNOW-RBsp (knowledge of dynamic and Static Real brands J&B and JackDaniels); KNOW-IBdp and KNOW-IBsp (knowledge of dynamic and Static Incongruent brands, DYC and Veterano); FAM-RBdp and FAM-RBsp (Familiarity with dynamic and Static Real Brands J&B and Jack Daniels);); FAM-IBdp and FAM-IBsp (Familiarity with dynamic and Static Incongruent Brands DYC and Veterano); CONS (Consumption of Whisky); INVOLp and INOLb (Involvement with product and brand).

Table 5 Consumption regression on the attitude towards the brand

	R^2	*F*	*B*	*SE B*	*β*	*t*	*p*
CONSUM --> $A_b$dp	.226	9.821(1.203)					.000
Intercept (Constant)			2.810	.303		9.273	.000
Predictor (CONSUM)			.843	.204	.377	4.126	.000
CONSUM --> $A_b$sp	.195	24.957(1.203)					.000
Intercept (Constant)			2.805	.365		7.689	.000
Predictor (CONSUM)			1.229	.246	.442	4.996	.000