

**Is less really more? - The influence of logo
descriptiveness in logo redesign on brand evaluations
across countries**

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Abstract

When a brand chooses to operate on a global scale, they must determine if they wish to use a global approach or more country specific approach in their marketing strategy, including their logo selection. Recently, many brands have opted for a simple and less descriptive version of their logo. Logo descriptiveness refers to the extent to which a logo represents the brand name (Luffarelli, Mukesh & Mahmood, 2019). Studying the cross-country comparison of logos effects is relevant because if limited cross-country differences exist, then a brand may wish to adopt a global logo selection. The present study investigated the effects of logo descriptiveness and nationality (Spain and the US) on consumer brand evaluations. 199 participants from the US and Spain participated in the research via an online questionnaire in which their brand evaluations were assessed after viewing logos with one of three levels of descriptiveness (verbal + icon, icon, or verbal). Following the lead of Van Hooft, Van Mulken & Nederstigt (2013), tolerance of ambiguity was used as a cultural variable as it may be related to Hofstede's uncertainty avoidance, however the difference between countries were small. More descriptive logos (verbal + icon) provoked more positive brand attitudes than less descriptive logos (verbal logos), but, interestingly, icon logos also provoked more positive brand attitudes than verbal logos. There were no differences between the two samples or logo descriptiveness conditions on brand recognition or response time. Companies operating in Spain and the US may achieve their high image communication objective (Henderson & Cote, 1998) by selecting either a verbal + icon or icon logo instead of a verbal logo. Future research can help clarify which logo factors are the most essential for brands selecting logos to achieve their communication objectives, especially in a cross-cultural setting.

Introduction

In recent years, logo research studies have referred to logo design as an iterative process tied to market changes (Kim & Lim, 2019; van Grinsven & Das, 2015). According to Foroudi, Melwar & Gupta and on the basis of the causes specified in earlier studies (Rosson & Brooks, 2004; Van den Bosch, Elving & De Jong, 2006; as referenced in Foroudi, Melwar & Gupta, 2017, p.176) various situations may prompt an identity rebranding, such as “mergers, acquisitions, privatization, restructuring, repositioning, changing geographical emphasis, marketplaces and takeovers...”. Since logos are part of a company’s visual identity (Rosson & Brooks, 2004; Van den Bosch, Elving & De Jong, 2006), logo redesign may occur when a company encounters one of these situations. Recent studies have observed a trend towards simpler logos in logo redesign (Kim & Lim, 2019; Luffarelli, Mukesh & Mahmood, 2019).

Logos may include verbal or iconic elements, or a combination of both. More specifically, and according to Mollerup (1999), logos are defined as “a set of elements (color, typeface, name, and design) that gives prominence to a company’s products and services; it also reflects on its ability to enable customers to distinguish and identify a brand or a company” (as cited in Foroudi, Melewar, & Gupta, 2017, p.180).

Prior research has classified logos into 4 types: figurative, typographic, combination marks, or abstract (Airey, 2009; Schechter, 1993 as cited in van Grinsven, 2016). This study will adapt this typology and will instead use the categories: icon, verbal, and verbal + icon (V + I) (see Table 1).



Table 1. Examples of logo type categories

| Icon | Verbal | V + I |
|---|---|---|
|  |  |  |

Logos retrieved from “Domino’s” (n.d.) Welcome to Dunkin’” (2018), and “The Wendy’s story” (2020)

Icon logos will include icon-only logos, verbal logos include text-only logos, and V + I logos include a combination of visual (icons) and verbal (text) elements. Icon elements of a logo can fall on a spectrum of figurative to abstract; figurative logos depict something real that can be recognized while abstract logos depict something that doesn't have the same meaning attached to it (Machado, de Carvalho, Costa, Lencastre, 2011). For example, the figurative Puma logo versus the abstract Adidas logo (see Table 2).

Table 2. Figurative versus abstract logos

| Figurative | Abstract |
|--|---|
|  |  |

Logos retrieved from “How the jumping cat was invented” (2016) and “History and Meaning Behind Adidas Logo” (2020).

This study will add to the figurative logo typology from Machado et al. (2011) by further categorizing figurative logos into real - fictional. This addition to the figurative logo typology will allow for more specific and precise classification of logos. For example, in both the Dunkin’ and Starbucks logos you can recognize an identifiable sign (i.e. a coffee cup and a mermaid) but a cup of coffee is real, while mermaids are fictional (see Table 3).

Table 3. Examples of real versus fictional logos

| Real | Fictional |
|---|--|
|  |  |

Logos retrieved from “Welcome to Dunkin’” (2018) and “A look at the future of Starbucks” (2020).

Brands can choose which of these logotypes they would prefer, especially considering that logo design characteristics may cause different communicative effects such as brand recognition and attitude (Van Grinsven & Das, 2014). For example, logos that use recognizable icons such as animals, objects, characters, or places are more easily recognized and learned (Henderson & Cote, 1998). So, for a brand that wishes to have high brand recognition, selecting a logo with one of these types of icons might be preferred.

Henderson and Cote (1998) presented one of the first studies focused on effects of logo selection and design elements on consumer responses which aimed to provide clear guidelines for companies who are considering selecting or modifying their logos. According to the guidelines established by these authors, companies may use logos as a means of meeting three specific communication objectives: high-recognition, low-investment, and high-image (Henderson & Cote, 1998). Each of these objectives held by the company is matched with a specific response or set of responses desired from consumers. Therefore, in accordance with these guidelines, a company with the high-recognition objective desires that consumers who see their logo will accurately recognize their logo and feel positively towards it (Henderson & Cote, 1998). In contrast, the low-investment objective does not require correct recognition so long as consumers have false recognition and feel positively towards their logo (Henderson & Cote, 1998). Lastly, companies who hold the high-image objective seek a professional logo that will produce the positive affect response from consumers, but not necessarily accurate or false recognition of the logo (Henderson & Cote, 1998). Henderson and Cote (1998) found that logos

with a medium level of elaborateness and elicited more positive attitudinal responses from consumers as compared to less elaborate logos; elaborateness was defined as the result of a logo's complexity, so, simpler logos are less complex and are, therefore, less elaborate. Natural logos were also proven to provoke positive attitudinal responses from consumers in the study and higher correct logo recognition; naturalness was defined as the extent to which logos portray frequently encountered objects (Henderson & Cote, 1998). Although Henderson and Cote (1998) have provided evidence that different logo design elements (like elaborateness or naturalness) may provoke certain responses from consumers, i.e. recognition and positive affect, in order to understand why logos may elicit these responses from consumers, it is necessary to establish a theoretical background.

Theoretical background

Processing fluency theory is often used to explain logo effects (Kim & Lim, 2019). The sender, in this case a company which has selected a logo, encodes information into a logo so that receivers (consumers) can process and decode the meaning from the logo; processing fluency refers to the effort which is needed to decode this meaning (Miele & Molden, 2010, p. 535). Research indicates that "the more fluently the perceiver can process an object, the more positive ... his or her aesthetic response" (Reber, Schwarz & Winkielman, 2004, p. 377). According to Miele and Molden (2010), perceived comprehension may depend on the level of ease experienced by individuals when processing information; this in turn, depends on the message characteristics.

Two types of processing fluency exist: perceptual fluency, which is based on the characteristics of a stimulus, and conceptual fluency, which is based on the associated meaning (Janiszewski & Meyvis, 2001). So, when consumers process a logo they try to link it to their own mental representations and may engage with the logo in order to decode its meaning; to measure how easily consumers can process logos, prior research (Van Grinsven & Das, 2015) has used response time as a proxy for measuring the cognitive process. With additional logo exposure, both types of processing fluency should increase, and when people can process a logo more fluently, they will be more positive towards it (Reber, Schwarz, Winkielman, 2004). However, this does not consider logo complexity. In initial exposures to a logo, simple logos (one-meaning) may be preferred over complex logos (multiple-meanings) according to previous research (Janiszewski & Meyvis, 2001). Processing fluency may affect consumer's responses to

visual stimuli, like logos, and different stimulus characteristics, including complexity, may influence processing fluency (Janiszewski & Meyvis, 2001; Reber, Schwarz, Winkielman, 2004; Van Grinsven & Das, 2014).

Prior research has established that logo complexity, namely, the quantity, irregularity, dissimilarity, detail and asymmetry of objects (Pieters, Wedel and Batra, 2010, as referenced by Van Grinsven & Das, 2014), has an effect on brand evaluations (Van Grinsven & Das, 2014). Research suggests that simple logos provoke higher brand attitudes than complex logos, and that recently established logos have higher brand recognition for simple logos over complex logos (Van Grinsven & Das, 2014). In sum, when brands redesign their logos, processing fluency may explain, in part, consumers' positive or negative responses because logo complexity changes may affect processing fluency.

Logo Redesign

Logo redesigns are either evolutionary or revolutionary (Airey, 2009). Evolutionary redesigns occur when the logo evolves from the original, while a revolutionary redesign is more comprehensive (Airey, 2009). Therefore, evolutionary redesign more closely resembles the original design, where a revolutionary redesign is a clearer departure from the original. See the evolutionary to revolutionary logo redesigns of Microsoft Edge in Figure 1. In the first change and second change of the Edge logo, the basic shape is still present, therefore, this is an evolutionary change, but the change from the 2015 to 2019 logo is much more substantial and represents a revolutionary change.



Figure 1 Microsoft Edge Logo redesigns, Graphic Design forum, 2019

Recall that logo processing involves recognizing the logo (i.e. by linking it to one's own knowledge system) and decoding its meaning (Van Grinsven & Das, 2015). Thus, for consumers who already hold a mental representation of a logo, a logo redesign that alters the level of complexity may affect the ease of processing in terms of logo recognition and response time. In their experiment, Van Grinsven and Das (2015) tested the effect of degree of logo change on logo processing speed and found that evolutionary redesigns were processed faster than revolutionary redesigns. However, the logo processing speed was not different between the original logo and the evolutionary or revolutionary redesigns (Van Grinsven & Das, 2015). An additional experimental study by Van Grinsven and Das (2015a) found that logos with a substantial (revolutionary) change were processed slower than the original logo but did not find a difference in processing speed between the original logo and the small (evolutionary) change. Therefore, logos that undergo a more substantial change may increase the cognitive processing time of consumers, but this is not necessarily the case for smaller logo redesigns.

The level of logo change, in turn, may influence consumer's affective responses. In the Van Grinsven and Das (2015) study, more substantial logo redesigns elicited negative brand attitudes compared to the original logo for highly brand-conscious consumers. Accordingly, brand attitude may be affected as a result of logo redesigns, however, further research is necessary to add insight into this phenomenon. Altering logo descriptiveness is one form of logo redesign that may impact brand attitude.

Logo Descriptiveness

Many brands use logos that represent their main product(s), and the level to which a logo manifests this is its logo descriptiveness (Luffarelli, Mukesh & Mahmood, 2019). Evolutionary logo redesigns can be performed through decreasing logo descriptiveness by eliminating a logo element. For example, Dunkin' decided to drop their iconic element, resulting in a less descriptive, verbal-only logo ("Welcome to Dunkin'", 2018). So, logos are made more descriptive as a sum of their verbal and icon components together, in this case the coffee and the brand name, and are made less descriptive when one of these elements are absent.



Figure 2 The Dunkin' Brand 2019 logo change, "Welcome to Dunkin'", 2018

Luffarelli, Mukesh and Mahmood (2019) compared the effects of logo descriptiveness and brand familiarity on consumer brand evaluations and purchase intentions; their results revealed that more descriptive logos are processed with more ease than less descriptive logos. Furthermore, they elicited more positive brand evaluations, purchase intentions and brand performance; for example, a logo of a sushi restaurant including a sushi roll was evaluated more positively than a logo using a shape (Luffarelli, Mukesh & Mahmood, 2019). Both Luffarelli, Mukesh and Mahmood (2019) and Van Grinsven and Das (2014) used the complexity definition from Pieters et al. (2010). Less descriptive logos were perceived as less complex in Luffarelli, Mukesh and Mahmood's study (2019); complexity in their study was measured by the quantity and detail of elements in a logo design. Therefore, since logo descriptiveness can be manipulated by deleting elements, logo descriptiveness may be linked to logo complexity under this definition, because by altering the amount of logo elements present, both logo complexity and the level of descriptiveness are changed. By linking complexity and descriptiveness, this provides additional evidence to support the work of Van Grinsven and Das (2014), who found that familiar, complex

logos received higher brand attitude and brand recognition. More descriptive logos have more elements, so it might be plausible to assume that they are more complex than less descriptive logos and should elicit positive consumer evaluations and higher brand recognition.

Luffarelli, Mukesh and Mahmood (2019) did not take into account other types of logo descriptiveness such as a “logo that is descriptive of its brand name” or a “logo that is also descriptive of the personality traits it wants to project”, leaving a research gap in their work (p.876). For example, the company Target represents their brand name, rather than their products in its logo (see Figure 3). This type of descriptiveness is unstudied and may also have an effect on consumers making it a worthwhile addition to logo research.



Figure 3 The Target logo, A Bullseye View, 2014

Using one of the additional types of descriptiveness identified by Luffarelli, Mukesh and Mahmood (2019), namely, the degree to which a logo manifests its brand name, would add to ongoing research. Therefore, this research proposes the following research questions:

RQ1: Will more descriptive logos lead to more positive brand attitude evaluations than less descriptive logos?

RQ2: Will more descriptive logos lead to higher brand recognition than less descriptive logos?

Luffarelli, Mukesh and Mahmood (2019) did not test the effects of logo descriptiveness across countries. It could be that there is a cultural explanation for why one country would prefer logos that are more or less descriptive. Therefore, adding a cultural element to the present study is pertinent. In addition to the need for research on logo simplification, Kim and Lim also call for further cross-cultural research focused on brand logos to help develop theories and give a deeper

understanding of how branding and logos can be successfully managed by companies within the various different cultures in which they operate (2019). Thus, cross-cultural research on logos is especially relevant.

Logos as visual metaphors

According to Kim and Lim (2019), few studies have performed cross-cultural comparisons of logo effects, and even fewer studies, have used Spain and the US for a comparison. Due to the lack of directly relevant research, predicting differences in logo effects influenced by culture is difficult. For this reason, studies on visual metaphors and verbal anchoring in advertising may lend a theoretical basis for predicting cross-cultural differences in communicative effect.

Different levels of meanings may be derived from an advertisement, as seen by Barthes in his “Rhetoric of the Image” (1964). He identified three messages: a linguistic message, a denoted (literal) image, and a connoted (symbolic) image (Barthes, 1964). The linguistic message is the text present; the literal message includes all the different un-coded signs present; and the symbolic message includes the signs that are derived from the image based on the signifiers (1964). However, regarding the meaning of the whole ad, Barthes discusses the plurality of images; people may hold an internalized system of different meaning for signs based on their own experiences and culture, so they may come up with different interpretations of the meaning of an advertisement (1964). Therefore, in accordance with Barthes (1964), culture may also play a role in how people respond to a visual metaphor because culture may shape the meanings that people draw from the symbols they see in an advertisement. What means one thing in one culture, may hold an entirely different meaning within another culture.

The linguistic message functions as an anchor for the intended meaning of the image to help direct the reader (Barthes, 1964). This is evident in advertising research on verbal anchoring which found that adding headlines to explain complex visual metaphors may increase the ad comprehension and likability (Phillips, 2000); and using more complete headlines (compared to less/moderately complete headlines) positively influences brand attitude (Bergkvist, Eiderback & Palombo, 2012). However, both of these studies (Phillips, 2000 and Bergkvist, Eiderback & Palombo, 2012) did not take cultural effects into consideration.

In connecting this to logo research, and using Puma’s logo as an example, V + I logos contain these same elements: the linguistic message (i.e. the Puma brand name), the literal image

(i.e. a puma is a puma), and the symbolic image (i.e. the puma may signify brand characteristics like fierceness). Having the verbal and icon elements together may allow the brand name to anchor the meaning. Therefore, more descriptive logos may lead to more positive brand evaluations because their meaning is verbally anchored.

Much like advertisements, V+ I logos have a visual component that can be interpreted. According to Phillips and McQuarrie (2004), 3 types of advertising visual metaphors are possible, namely: juxtaposition, fusion, and replacement. In looking at logos like visual metaphors, a V + I logo might be likened to a juxtaposition because it “puts two elements side by side”; moreover, juxtaposed visual metaphors may be easier to process (Phillips & McQuarrie, 2004, p.117). This may support the classification of V+ I logos as juxtaposed visual metaphors. Juxtaposition may be easier to process because there are two distinct elements that can be identified and then connected together to create meaning (in the case of a V + I logo the verbal and icon elements) (Phillips & McQuarrie, 2004). Alternatively, icon logos may be related to replacement visual metaphors because the icon indicates the absent verbal element, i.e. the brand name. Van Hooft, Van Mulken & Nederstigt (2013) found that ad liking for juxtapositions was higher than ad liking for replacement ads and ads without metaphors. It may be that V + I logos would elicit higher attitudes compared to logos that do not require the same sort of interpretation i.e. connecting the meaning between the two elements. Although this research by Phillips and McQuarrie (2004) on advertisements shows that visual metaphors can be used by companies to express a message, advertisements are created to sell a product, while logos might be present in a variety of different situations as part of a company’s visual identity (Rosson & Brooks, 2004; Van den Bosch, Elving & De Jong, 2006) and, therefore, more research is required on logos as visual metaphors.

International marketing research

Multinational companies must decide how they would like to project their corporate visual identity, including their logo, across countries (Melewar, 2001). Namely, should their image be standardized everywhere they operate, or should it be tailored for each country; this presents a dilemma for multinational companies (Melewar, 2001). Multinational companies have to make a strategic choice to either present their image as global (the same image established across all markets), local (tailored to the specific market or only existing in one area) or glocal (a global

brand which acts like a local brand) (Lopez-Lomeli, Llonch-Andreu, & Rialp-Criado, 2019). Making this choice may be challenging for a company because logo design may vary across countries. A content analysis of top companies by Jun and Lee (2007) found that South Korean logos were more abstract and symbolic when compared to U.S. logos. However, their study does not provide evidence for the effects these design elements have on consumers, only that differences in logo design across countries (U.S. and South Korea) exist.

Exploring cultural effects is relevant to this study, because one of the reasons that a company may adjust their visual identity is a move to a new international market (Foroudi, Melwar & Gupta, 2017). When a brand chooses to operate in a global market, they must consider that certain aspects of logo design may be perceived differently across countries, for example, logo color (Madden, Hewett, & Roth, 2000). Madden et al. (2000) conducted a cross-country research study between Austria, Brazil, Canada, Colombia, Hong Kong, China, Taiwan, and the U.S. investigating potential similarities and differences in color assortment preference. Their research showed that some colors were proven to have shared meaning and liking across countries, while other colors were found to have cross-country differences in meaning or liking (Madden et al., 2000). Additional research has also found cross-country differences related to other logo elements; Foroudi et al. (2017) performed an exploratory research study in Persia and Mexico in order to investigate which aspects of corporate logos may affect a company's corporate image and reputation among internal stakeholders; while elements such as the brand name and color may have a positive influence on corporate image and reputation in Mexico, this was not the case in Persia. However, some studies suggest that logo effects may be similar across countries. Van der Lans et al. (2008) studied the effect of logo design elements across 10 different countries which were grouped into three different clusters; their results suggest that consumer responses due to logo design differences (such as elaborateness, naturalness, and harmony) remain largely consistent across countries, with limited between country differences present. Their results could support a global approach to logo selection for multinational companies (Van der Lans et al., 2009). While this prior international marketing research has established a basis for investigating the effect of differences in logo elements across countries, the level of logo descriptiveness and the impact it may have on consumer brand evaluations has not yet been examined.

In regard to the present research, analyzing logo descriptiveness will add additional insight into the international marketing choices that brands must make. Logo descriptiveness is not the only logo design element that should be considered but is one aspect of logos that could be easily tailored across countries since it can be manipulated through simply deleting a logo element. If differences do exist between the different logo types in both countries, then a glocal strategy may be advisable in terms of logo descriptiveness, but if a pattern of similarities emerges, then a global logo descriptiveness strategy could be adopted. Furthermore, if there are differences present between countries in terms of logo effects, investigating if a cultural element may be responsible for these differences can further advise brands as they shape their international marketing efforts. Thus, the present research adds insight into the communication strategies that brands can use to express their image via their logo across different countries.

Tolerance for ambiguity

In order to investigate the effect of culture on interpretations of visual metaphors, it is necessary to determine which aspect of a culture may contribute to potential differences. Van Hooft, Van Mulken and Nederstigt investigated visual metaphors in advertising across cultures (2013). In their study, Van Hooft, Van Mulken & Nederstigt (2013) found that tolerance for ambiguity did not influence consumer comprehension, liking or purchase intention. Although Van Hooft, Van Mulken & Nederstigt (2013) found limited support for cultural effects in their study related to tolerance of ambiguity, they did find that Dutch participants were able to more accurately comprehend metaphors compared to French participants. However, tolerance for ambiguity could not be used to explain this difference so it is possible that a different culture variable could be used as an explanation. It could be that overall, between country differences were not found in their study because the differences in tolerance of ambiguity between the countries in their study were not big enough.

Prior research has set a precedent for using tolerance of ambiguity as a cultural variable (Van Hooft, Van Mulken & Nederstigt, 2013). The present study will use this same strategy and aims to see if selecting countries that have a more distinct difference in terms of tolerance of ambiguity will reveal cultural effects that were not present in Van Hooft, Van Mulken and Nederstigt's study. This study will also define tolerance for ambiguity using the definition from Arquerro and McLain (2010): "Ambiguity is the perception derived from a cognitive challenge

caused by the lack of information or because such information is diffuse. The complexity and lack of familiarity or logic are contextual characteristics that entail a challenge for the observer, who must mesh the limited information with an understandable and coherent whole” (p.477). This approach by Van Hooft, Van Mulken and Nederstigt (2013) provides a framework to justify using tolerance of ambiguity, as it is related to Hofstede’s uncertainty avoidance dimension, as a cultural variable. Hofstede himself may have considered the relationship between these two dimensions. On one page of his famous cross-cultural research, Hofstede (1984) used ambiguity and uncertainty interchangeably, but did not provide any further comment (p.112). As Van Hooft, Van Mulken and Nederstigt (2013) noted in their research: other studies have suggested a correlation between Hofstede’s uncertainty avoidance (UAI) and tolerance for ambiguity (Furman & Ribchester, 1995); or even suggested that tolerance of ambiguity could be used in place of uncertainty avoidance (Madzar, 2005). Therefore, a precedent for using tolerance of ambiguity to study cultural effects has been established.

Based on Hofstede’s UAI classification, Van Hooft, Van Mulken and Nederstigt (2013) posited that France (86 UAI), Spain (86 UAI) and Germany (65 UAI) would have lower tolerance for ambiguity scores since they had higher UAI’s; and that the Netherlands (53 UAI) would have higher tolerance for ambiguity. Contrary to this assumption, Van Hooft, Van Mulken and Nederstigt (2013) did not find overwhelming support to connect uncertainty avoidance scores and tolerance for ambiguity, instead they found a pattern of cultural convergence rather than distinct cultural differences between the countries in their results. However, perhaps the difference between the uncertainty avoidance scores was not big enough and using countries that are further apart on the scale would reveal a cultural effect. For example, the US (46 UAI) rates even lower than the Netherlands (Hofstede Insights, 2001).

The present research will look at Spain and the US because of their opposing UAI scores. The assumption is that Spain’s culture may include more aversion to ambiguity, while the US may have higher tolerance for ambiguity. Testing this framework in Spain and the US is relevant because under the present study’s definition of descriptiveness (the extent to which a logo represents the brand name), less descriptive logos have less information than more descriptive logos and are, therefore, more ambiguous. In returning to the aim of the present study, more descriptive logos should help consumers to understand the meaning of a logo better by creating less ambiguity. The present research will add to ongoing cultural effects research, specifically

related to the American and Spanish cultures. The preceding theoretical framework has led to the following research questions:

RQ3: Will more descriptive logos elicit more positive brand attitude evaluations for Spanish participants when compared to US participants?

RQ4: Will more descriptive logos elicit higher brand recognition for Spanish participants when compared to US participants?

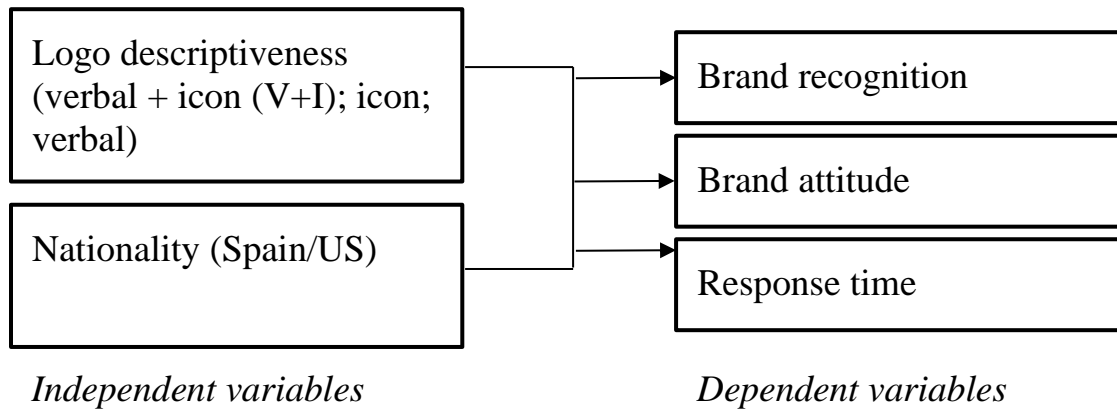
RQ5: Will more descriptive logos elicit faster response time for Spanish participants when compared to US participants?

This paper will help account for possible cultural influences on consumer evaluations of logo redesigns. Conducting a cross-country study could reveal cultural differences, which may moderate logo change effects. Luffarelli, Mukesh and Mahmood (2019) were the first to investigate the effect of logo descriptiveness related to product attributes on brand evaluations. To date, no study has explored the influence of logo descriptiveness related to brand names. The aim of the present study is twofold: first, the study aims to confirm the influence of logo descriptiveness on consumer brand evaluations and second, by adding a cross-country element, the study will also answer the call of Kim and Lim (2019) for additional cross-cultural logo effect studies.

Method

There are two independent variables: logo descriptiveness and nationality. Logo descriptiveness is a nominal variable with three levels (verbal + icon (V + I), visual and verbal). Nationality is a nominal variable with two levels (Spain and the US). There are three dependent variables: brand recognition, brand attitude and response time (all interval/scale variables). The analytical model below presents the relationship between the independent and dependent variables.

Analytical model 1. The relationship between independent and dependent variables



Materials

An online Qualtrics survey was used as it was easiest to administer during COVID-19 and was most suitable for the collection of cross-country research. The Qualtrics questionnaire was first created in English for the American sample and then translated into Spanish for the Spanish sample. The independent variable logo descriptiveness has three levels (V + I, verbal, and icon). V + I logos were operationalized using the logos of three small Dutch game companies: Yellowcake Games, Roofkat, and Wooden Plank Studios. For the icon logos, the brand name was edited out; for the verbal logos, the icon was edited out. The company brand names were translated by a native Spanish speaker into a Spanish equivalent. Then Adobe photoshop was used to create equivalent Spanish versions of the logos. Table 4 presents the operationalization of the logo descriptiveness in both language versions. See Appendix B - C to view the English and Spanish versions of the Qualtrics surveys with stimuli.

Table 4. Logo descriptiveness operationalized

| Highly descriptive logos - V + I | Less descriptive logos - icon | Less descriptive logo - verbal |
|---|---|--------------------------------|
|  ROOFKAT |  | ROOFKAT |
|  EL GATO EN EL TEJADO |  | EL GATO EN EL TEJADO |
|  WOODEN PLANK |  | WOODEN PLANK |
|  LA TABLA DE MADERA |  | LA TABLA DE MADERA |
|  YELLOWCAKE |  | YELLOWCAKE |
|  EL PASTEL AMARILLO |  | EL PASTEL AMARILLO |

Logos were collected from Dutch Game Industry Directory (2020).

This study aimed at selecting logos that were unfamiliar to participants from both Spain and the U.S. so that logo familiarity would not mediate the effect as exposure to logos does play a role in processing (Reber, Schwarz, Winkielman, 2004). Therefore, logos from three small Dutch game companies were selected because it is unlikely that they would be familiar to participants. These logos were collected from the Dutch Game Industry Directory (2020). Filler logos used were also collected from this site and Spanish equivalents of these logos were also created (see questionnaires in appendix). Furthermore, during logo selection, examples of descriptive logos were easily found within the gaming sector. The selected logos all use a maximum of two colors, uppercase typography and a brand name that uses an adjective/noun

combination. Picking logos with similar features was done to limit potential style factors that could influence logo evaluations. When necessary, these logos were edited to fit these guidelines. Small edits were done in order to give the original logos; namely, “games” was edited out of the Yellowcake Games logo, and “studios” was edited out of the Wooden Plank Studios logo. This was done to prevent the product descriptiveness present in those logos from mixing with the brand name descriptiveness.

Building on the work of Luffarelli, Mukesh and Mahmood (2019) in this study, descriptiveness refers to the degree to which a logo visually and verbally represents the brand’s name. Therefore, the brand names had to be named after real things. For example, Puma uses a puma icon as part of their logo. Logos that include the verbal + icon (V + I) element are the most descriptive and complex because they contain the most information and the most elements. These logos were selected because they fit the following requirements: (1) they are all V + I logos; this requirement was necessary because these types of logos can be made less descriptive by removing the verbal or icon element (2), all logos came from the same product category, (3) all logos should come from brands not present in the target country so that they are unfamiliar. The study aimed to test differences that may arise from different levels of descriptiveness. The V+I logos that were selected were then edited to become less descriptive by becoming icon-only or verbal-only logos (as seen in Table 8 in the design section).

Due to the difficult data collection conditions, a pre-test was not conducted to assess participant logo preference between the three logos selected as stimuli. However, a manipulation check was performed to assess if participants liked all three logos used as stimulus equally between nationalities. There were no differences in logo liking between American and Spanish participants for the RoofKat logo ($F(1,197) < 1, p = 0.661$) or the Wooden Plank logo ($F(1,197) < 1, p = 0.320$). However, Americans ($M = 2.45, SD = 1.77$) liked the Yellow Cake logo significantly more than Spanish participants ($M = 3.19, SD = 1.82$), ($F(1,197) = 17.16, p < .001, \eta^2 = .107$). This may be because cakes, such as the one in the Yellow Cake logo, are part of the culture and traditions in the United States and may be considered as American cultural icons (Martyris, 2016).

The second independent variable, nationality, has two levels (US and Spain), and was operationalized by using participants from Spain and the US. In order to test their tolerance to ambiguity, the 13-item ambiguity tolerance scale (MSTAT-II) was used. Prior research has

validated the use of this scale to measure tolerance towards ambiguity both in English (McLain, 2009) and in Spanish (Arquero & McLain, 2010). In the present study, a reliability analysis showed that for the complete sample, the reliability of ‘tolerance of ambiguity’ comprising of ‘13’ items was good: $\alpha = .81$. For the Spanish sample, the reliability of ‘tolerance of ambiguity’ comprising of ‘13’ items was good: $\alpha = .80$. For the American sample, the reliability of ‘tolerance of ambiguity’ comprising of ‘13’ items was good: $\alpha = .81$. In view of the fact that the reliability of the 13 items used to measure ‘tolerance of ambiguity’ was good, a compound variable was created called ‘tolerance for ambiguity’.

Subjects

Tables 6 and 7 show the full results of the descriptive statistics (age, gender, and education) and the distribution of participants between logo conditions and between cultures. 113 American and 86 Spanish participants took part in the experiment, for a combined total of 199 participants. 69% of American participants were female, and 73% of Spanish participants were female. Participant educational levels ranged from elementary education to professional degrees; the most frequent educational level for Americans and Spaniards was a Bachelor’s degree. The age range of American participants was between 19 – 86 years of age. The age range for Spanish participants was between 18 – 60 years of age. Age was not evenly distributed between nationalities. A one-way ANOVA showed no significant effect of logo condition on age ($F(2,196) < 1, p = 0.900$). However, a one-way ANOVA did show a significant effect of nationality on age ($F(1,197) = 18.85, p < .001$). The average age of American participants ($M = 36.17, SD = 17.54$) was significantly higher than Spanish participants ($M = 26.80, SD = 15.74$).

A series of Chi-square test showed no significant differences between nationality and gender ($\chi^2(2) = 1.07, p = 0.584$), logo condition and gender ($\chi^2(4) = 4.02, p = 0.404$) or logo condition and education ($\chi^2(10) = 8.86, p = 0.545$). A Chi-square test did show a significant relation between nationality and education ($\chi^2(5) = 13.92, p = 0.016$). American participants (52.2%) were more likely to have obtained bachelor’s degree than Spanish participants (32.5%). Additionally, Spanish participants (0.08%) were more likely to have obtained a professional degree than American participants (0.02%). Due to the difficult data collection conditions, it is unsurprising that American participants had a higher average age and different education than many of the Spanish participants because American participants were mostly contacted via social

media channels from the researchers personal network, while many of the Spanish participants were university students.

Table 6. Descriptive statistics between nationality groups

| | Nationality | |
|----------------------|---------------------|-------------------|
| | American N = 113 | Spanish N = 86 |
| Age <i>M(SD)</i> | 36.17(17.54) | 26.80(11.01) |
| Gender count(%) | | |
| Female | 78(69.0%) | 63(73.3%) |
| Male | 34(30.1%) | 23(26.7%) |
| Other | 1(1.0%) | 0(0.0%) |
| Education count (%) | | |
| Elementary education | 1(1%) | 0(0.0%) |
| High School | 24(21.2%) | 19(22.1%) |
| Bachelor's degree | 59a(52.2%) | 28b(32.5%) |
| Master's degree | 23(20.3%) | 23(26.7%) |
| Doctoral degree | 4(0.04%) | 9(10.5%) |
| Professional degree | 2a(0.02%) | 7b(0.08%) |

Table 7. Descriptive statistics between logo conditions

| | Logo condition | | |
|----------------------|-----------------|----------------|------------------|
| | V + I N = 66 | Icon N = 62 | Verbal N = 71 |
| Age <i>M(SD)</i> | 31.45(15.66) | 32.17(16.67) | 32.69(15.16) |
| Gender count(%) | | | |
| Female | 78(69.0%) | | 63(73.3%) |
| Male | 34(30.1%) | | 23(26.7%) |
| Other | 1(1.0%) | | 0(0.0%) |
| Education count (%) | | | |
| Elementary education | 0(0.0%) | 1(0.02%) | 0(0.0%) |

| | | | |
|---------------------|-----------|-----------|-----------|
| High School | 17(25.7%) | 14(22.6%) | 12(16.9%) |
| Bachelor's degree | 30(45.4%) | 24(38.7%) | 33(46.5%) |
| Master's degree | 14(21.2%) | 15(24.2%) | 17(23.9%) |
| Doctoral degree | 5(0.07%) | 4(0.06%) | 4(0.06%) |
| Professional degree | 0(0.0%) | 4(0.06%) | 5(0.07%) |
| American n = | 38 | 33 | 42 |
| Spanish n = | 28 | 29 | 29 |

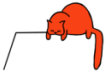
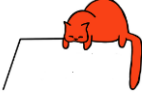







In order to ensure that a preference for the product category would not influence brand attitude evaluations, attitude towards online gaming was tested. A one-way ANOVA showed no significant difference between interest in online games between nationalities ($F(1, 197) = 1.88, p = 0.171$). Americans ($M = 3.81, SD = 1.92$) did not love online gaming more than Spaniards ($M = 3.43, SD = 2.00$).

Participant response time for both the brand attitude items and brand recognition was measured. The average response time for brand attitude was 10.05; the median was 9.10; the mode was 7.52; and the range was between 1.50 and 36.22 seconds. Two cases from the American sample were excluded from the brand attitude response time analysis because they were determined to be significant outliers (69.38 and 64.43 seconds which is six times bigger than the mean). The average response time for brand recognition was 0.80 seconds; the median was 0.00; the mode was 0.00; the range was 0 – 12.13 seconds. There was some confusion as to the brand recognition item which will be further discussed later in the research.

Design

A 3 x 2 between-subjects design was used. The three levels of the independent variable logo descriptiveness were equally distributed across three groups within the two nationality groups so that participants saw one of the three descriptiveness conditions. The Spanish participants saw the Spanish language version of the questionnaire and the Americans saw the English version. See Table 8 for the distribution of logos across groups. The logos were always presented in the same order.

Table 8. Distribution of stimuli across groups

| Group 1 (V + I) | Group 2 (Icon) | Group 3 (Verbal) |
|---|--|-----------------------------|
|  ROOFKAT |  | ROOFKAT |
|  EL GATO EN EL TEJADO | | EL GATO EN EL TEJADO |
|  YELLOWCAKE |  | YELLOWCAKE |
|  EL PASTEL AMARILLO | | EL PASTEL AMARILLO |
|  WOODEN PLANK |  | WOODEN PLANK |
|  LA TABLA DE MADERA | | LA TABLA DE MADERA |

Instruments

3 dependent variables were investigated: response time, brand attitude and brand recognition. Logo processing speed was measured by adapting the measures of Van Grinsven & Das, 2015, via the proxy of time it took participants to respond to the three-target logos presented. On the Qualtrics questionnaire, the time participants took to respond when viewing the logo was recorded by measuring the time between their first click and last click on the page. This was done for both brand recognition and brand attitude questions. The target logos were hidden amongst filler logos, in this case, other Dutch game company logos collected from the Dutch Game Industry Directory. The processing speed is a measurement of how long it takes for participants to respond when they see the target logos after this initial exposure.

Brand recognition was measured using an adapted scale developed by Van Hooft and Das (2014); a 7-point scale was used with the question “Do you recognize this logo?” on a scale of “No, I do not recognize this logo” to “Yes, I absolutely recognize this logo”.

Brand attitude was measured using a scale from Ahluwalia, Burnkan and Unnava (2000, as used in Grinsven, 2016, p. 91); this consists of a 7-point semantic differential scale using the statement “I believe this brand is:” and the response items: “bad-good”, “terrible-nice”, “unfavorable-favorable” and “undesirable-desirable”. A reliability analysis showed that for the complete sample, the reliability of ‘brand attitude’ comprising of ‘4’ items was good: $\alpha = .92$. For the Spanish sample, the reliability of ‘brand attitude’ comprising of ‘4’ items was good: $\alpha = .92$. For the American sample, the reliability of ‘brand attitude’ comprising of ‘4’ items was good: $\alpha = .91$. Therefore, a compound variable was created called ‘brand attitude’. Other background variables measured include gender, age, and education.

Procedure

Subjects were recruited through the personal networks of the researcher and her thesis supervisor, and through the snowball effect using digital means. Data was collected between 4 and 18 May 2020. Email and social media were the main distribution channels for the survey. There were two equivalent versions of the Qualtrics survey, an English and Spanish version, so that participants could answer in their native tongue. Subjects were not given any compensation for their participation but were motivated to participate with a message inquiring for their help in a master’s thesis research project.

The experiment was conducted individually. Subjects received a digital invitation briefly explaining the research aim (without giving away the experiment manipulation). If they were interested, they first had to consent to the experiment, and then began their online survey on their computer or smartphone. If they did not consent, they were able to immediately quit the survey. Participants could end their participation at any time during the survey. First, they saw the target logos mixed in with the filler logos. This was followed by the recognition question, the brand attitude question, the tolerance for ambiguity items and, lastly, the demographic questions. After the questionnaire was complete, they saw a message thanking them for their participation. The present research used standard research methods for evaluation and attitude research as described by the Ethics Assessment Committee Humanities at Radboud University. The participants were

informed who they could contact in case of doubts or concerns about their participation, and about the nature of the study, including the estimated survey length and study goal. On Qualtrics, their responses were anonymized to avoid personal data collection from participants. See Appendix for the Checklist Ethics Review.

Statistical treatment

Descriptive statistics were performed to determine if the sample was diverse or if other factors may have influenced the results. A repeated measures two-way univariate analysis of variance with the between-subjects factor (nationality) and the between-subjects factor (logo descriptiveness) was performed to analyze the effect of the IVs on the DVs.

Results

Tolerance of ambiguity

An independent samples t-test showed a significant difference between Americans and Spaniards with regard to their tolerance of ambiguity ($t(174.10) = 2.02$, $p = .045$, $\eta^2 = .023$). The independent variable nationality (Spanish or American) explained 2% of the variance in tolerance of ambiguity and had a small effect size. Americans ($M = 4.42$, $SD = 0.78$) were shown to have higher tolerance of ambiguity than Spaniards ($M = 4.18$, $SD = 0.85$). See Table 1 in Appendix.

Brand attitude

A two-way analysis of variance with nationality (Spanish or American) and logo condition (verbal + icon, icon, or verbal) as factors showed a significant main effect of nationality on brand attitude ($F(1,193) = 15.39$, $p < .001$, $\eta^2 = .060$). Nationality explained 6% of the variance in brand attitude, with a medium effect size. Logo condition was found to have a significant main effect on brand attitude ($F(1,193) = 15.68$, $p < .001$, $\eta^2 = .117$). Logo condition explained 12% of the variance in brand attitude, with a medium to large effect size. The interaction effect between nationality and logo condition was not statistically significant ($F(1,193) = 1.74$, $p = .178$). Table 9 shows the means and standard deviations for brand attitude between the logo condition and nationalities.

Table 9. Means and standard deviations (between brackets) for brand attitude for different logo conditions between nationalities (1 = negative, 7 = positive).

| | American | Spanish | Total |
|--------|-----------------|----------------|-----------------|
| | $M(SD)[n]$ | $M(SD)[n]$ | $M(SD)[n]$ |
| V+I | 4.85(0.92)[38] | 4.24(1.17)[28] | 4.59(1.07)[66] |
| Icon | 4.73(0.99)[33] | 4.51(0.85)[29] | 4.63(0.93)[62] |
| Verbal | 4.17(1.17)[42] | 3.26(1.03)[29] | 3.80(1.20)[71] |
| Total | 4.56(1.08)[113] | 4.00(1.15)[86] | 4.32(1.14)[199] |

American participants ($M = 4.56$, $SD = 1.08$). were shown to have a more positive brand attitudes than Spanish participants ($M = 4.00$, $SD = 1.15$). Brand attitude evaluations of V + I logos ($M = 4.59$, $SD = 1.07$) were shown to be higher than verbal logos ($p < .001$, Bonferroni correction; $M = 3.80$, $SD = 1.20$). Brand evaluations of icon logos ($M = 4.63$, $SD = 0.93$) were shown to be higher than verbal logos ($p < .001$, Bonferroni correction; $M = 3.80$, $SD = 1.20$). There was no difference between V + I logos ($M = 4.59$, $SD = 1.07$) and icon logos ($p = 1.00$, Bonferroni correction; $M = 4.63$, $SD = 0.93$).

Brand recognition

A two-way analysis of variance with nationality (Spanish or American) and logo condition (V + I, icon, or verbal) as factors did not show a significant main effect of nationality on brand recognition ($F(1,193) < 1$, $p = .367$). Logo condition was not found to have a significant main effect on brand recognition ($F(1,193) < 1$, $p = .912$). The interaction effect between nationality and logo condition was not statistically significant ($F(1,193) = 4.40$, $p = .140$). American participants were not shown to have higher brand recognition than Spanish participants. There were no differences in brand recognition between the three conditions; see Table 10.

Table 10. Means and standard deviations (between brackets) for brand recognition for different logo conditions between nationalities (1 = definitely didn't recognize logo, 7 = definitely did recognize logo).

| | American <i>M(SD)[n]</i> | Spanish <i>M(SD)[n]</i> | Total <i>M(SD)[n]</i> |
|--------|-----------------------------|----------------------------|--------------------------|
| V + I | 1.76(1.81)[38] | 3.10(2.52)[28] | 2.33(2.22)[66] |
| Icon | 2.73(2.51)[33] | 1.80(1.75)[29] | 2.30(2.22)[62] |
| Verbal | 2.13(2.11)[42] | 2.55(2.13)[29] | 2.30(2.11)[71] |
| Total | 2.18(2.16)[113] | 2.48(2.19)[86] | 2.31(2.17)[199] |

Response time – brand attitude

A two-way analysis of variance with nationality (Spanish or American) and logo condition (V + I, icon, or verbal) as factors did not show a significant main effect of nationality on brand attitude response time ($F(1,191) = 1.47, p = .226$). Logo condition was not found to have a significant main effect on brand attitude response time ($F(1,191) < 1, p = .372$). The interaction effect between nationality and logo condition was not statistically significant ($F(1,191) = 2.01, p = .136$). American participants were not shown to have quicker response time than Spanish participants. There were no differences in response times between the three logo conditions. See Table 11 below.

Table 11. Means and standard deviations (between brackets) for brand attitude response time for different logo conditions between nationalities.

| | American <i>M(SD)[n]</i> | Spanish <i>M(SD)[n]</i> | Total <i>M(SD)[n]</i> |
|--------|-----------------------------|----------------------------|--------------------------|
| V + I | 10.11(5.53)[37] | 11.61(8.28)[28] | 10.75(6.83)[65] |
| Icon | 10.45(6.90)[33] | 8.12(4.07)[29] | 9.36(5.83)[62] |
| Verbal | 11.03(7.44)[41] | 8.52(4.95)[29] | 9.99(6.60)[70] |
| Total | 10.55(6.64)[111] | 9.39(6.14)[86] | 10.04(6.44)[197] |

Response time – brand recognition

A two-way analysis of variance with nationality (Spanish or American) and logo condition (V + I, icon, or verbal) as factors did not show a significant main effect of nationality on brand recognition response time ($F(1,191) < 1, p = .331$). Logo condition was not found to have a significant main effect on brand recognition response time ($F(1,191) = 1.44, p = .239$). The interaction effect between nationality and logo condition was not statistically significant ($F(1,191) = 1.09, p = .338$). American participants were not shown to have quicker response time than Spanish participants. There were no differences in response times between the three logo conditions. See Table 12 below.

Table 12. Means and standard deviations (between brackets) for brand recognition response time for different logo conditions between nationalities.

| | American <i>M(SD)[n]</i> | Spanish <i>M(SD)[n]</i> | Total <i>M(SD)[n]</i> |
|--------|-----------------------------|----------------------------|--------------------------|
| V + I | 0.54(1.67)[37] | 0.51(0.99)[28] | 0.53(1.41)[65] |
| Icon | 0.63(0.94)[33] | 0.68(1.56)[29] | 0.66(1.25)[62] |
| Verbal | 1.43(2.93)[41] | 0.65(1.42)[29] | 1.11(2.43)[70] |
| Total | 0.90(2.11)[111] | 0.62(1.33)[86] | 0.77(1.81)[197] |

Conclusion and Discussion

The present study aimed to investigate the effect of nationality and logo descriptiveness on brand attitude, brand recognition and response time. In summary, as expected there was a difference between nationalities, and Americans were shown to have higher tolerance for ambiguity than Spaniards. However, the effect size was small, and nationality only accounted for 2% of the variance in tolerance for ambiguity. Thus, the present study does not provide absolute support for distinct cultural differences in terms of tolerance for ambiguity between the US and Spain. Since prior research (Van Hooft, Van Mulken & Nederstigt, 2013) established a precedent of using tolerance of ambiguity as a cultural variable, the present study hoped to find a difference between Spain and the US in tolerance of ambiguity. Based on Hofstede's UAI scores in the US

(46) and Spain (86), and the large difference between these two scores (Hofstede Insights, 2001), it was posited that that Spain would have a lower tolerance for ambiguity than Americans. Although this study focused on US and Spain, while Van Hooft, Van Mulken and Nederstigt (2013) focused on Spain, France, Germany and the Netherlands, this tolerance for ambiguity finding leads to a similar conclusion: support for cultural convergence patterns rather than distinct differences due to tolerance for ambiguity. For the specific types of logos used, overall, there were no interactions found between nationality and logo descriptiveness, suggesting effects that were found due to logo descriptiveness may be present across countries (Spain and the U.S.).

In response to the first and third research questions which investigate the effect of nationality and logo descriptiveness on brand attitude; it appears that brand attitude is, to some degree, affected by logo descriptiveness. Namely, brand attitude was higher for V + I logos and icon logos than for verbal logos. American participants were shown to have more positive brand attitudes than Spanish participants. Overall, there was no difference in brand attitude between logo descriptiveness conditions for Spaniards and Americans. The present study defined descriptiveness as logos that represent the name of a brand, while Luffarelli, Mukesh and Mahmood (2019) defined descriptiveness as logos that represent the product of a brand. There should be caution taken in directly comparing the results of this study with the results of Luffarelli, Mukesh and Mahmood (2019) because of this definition difference. The present study contributes to the findings of logo descriptiveness by adding to the understanding of the effects of different kinds of logo descriptiveness on consumer brand evaluations. Overall, Luffarelli, Mukesh and Mahmood (2019) found that more descriptive logos were related to more positive brand evaluations. However, in this research, although V + I and icon logos were evaluated more positively than verbal logos, there was no difference in brand attitude between the V + I logos and icon logos. Research on mobile application icons can add insight to this finding. IKEA provides a recent real-world example of a brand adapting its logo for the purpose of digital readability; IKEA changed their logo “to be future proof in a digital world” (Hitti, 2019). The changes were minimal but will allow the logo to work well in digital formats and offline formats, from the small screen of a smartphone, to large IKEA signs hanging in their stores (Hitti, 2019). Wang and Li (2016) suggest a connection between logos and mobile app icons; logos represent a brand while app icons represent the application; and app icons may even contain the logo or a version of the logo. Their study found preliminary evidence suggesting that degree of complexity

may be linked to the number of downloads an app has; less complex icons may lead to more downloads compared to more complex icons but there is limited research to support their findings (Wang & Li, 2016). With the prevalence of smartphones, consumers may be used to associating an icon, be it a logo icon or a mobile icon, with its referent (i.e. a brand or an application). Perhaps this can explain the lack of difference between the brand evaluation of V + I and icon logos.

Regarding the second and fourth research questions, which are focused on the effect of nationality and logo descriptiveness on brand recognition; degree of descriptiveness did not affect brand recognition. Furthermore, there were no differences in brand recognition between the US and Spain. However, this may have resulted from a misinterpretation of the question. Participants reported being confused by the question “Do you recognize this logo?” and the researchers received multiple comments about this item. The researcher had intended to assess if the participants recognized the logo from the set of logos mixed with filler logos from the previous page in the experiment. However, it may be that participants thought that they were being asked if they recognized the logo from previous experiences before participating in the research. Thus, future research is necessary to determine if brand recognition may be influenced by logo descriptiveness or cultural effects as the present research failed to accurately assess this point. Prior research such as Van Grinsven and Das (2014) found that logos that are recently established may benefit from simpler logos over complex logos when it comes to brand recognition, therefore, studying brand recognition in the context of logo descriptiveness would add to this area of research. Additionally, the type of icons used might increase brand recognition; Henderson & Cote (1998) found that logos with icons like animals, objects, characters, or places are more easily recognized (Henderson & Cote, 1998). The three iconic elements in the stimuli logos from the present study (a cat, wooden plank, and piece of cake) all fall under this umbrella. Although the confusion with the brand recognition may have invalidated the results in the present study, future research would benefit from revisiting this research point with a clearer item.

Lastly, to answer the fifth research question, it appears that response time does not differ between Spanish and US participants for different levels of logo descriptiveness. Therefore, processing fluency does not seem to be influenced by nationality or logo descriptiveness in the current study. This contradicts the finding of Luffarelli, Mukesh and Mahmood (2019) who

found that descriptive logos could be processed with more ease than less descriptive logos. The logos in the present study were made less descriptive by undergoing an evolutionary redesign through the deletion of one element – either the icon or the verbal element. This study confirms the findings of Van Grinsven and Das (2015, 2015a) who did not find any differences in processing speed of logos that had been given an evolutionary redesign from their original form. Therefore, in the present study, the logos may not have undergone a change substantial enough to increase the cognitive processing time of consumers; undergoing a revolutionary descriptiveness redesign might yield processing speed changes as seen in the study of Van Grinsven and Das (2015). Revisiting verbal anchoring theory can also provide insight to this finding. In advertising, complete headlines have been proved to increase brand attitude (Bergkvist, Eiderback & Palombo, 2012) and headlines may also increase ad comprehension and likability for complex visual metaphors (Phillips, 2000). It could be that logos are not complex enough to be equated with advertisements or do not have the same level of visual metaphors that were investigated in the study of Van Hooft, Van Mulken, and Nederstigt (2013).

Multinational companies have to decide whether to adapt their international marketing strategy so that their brand image is tailored to each country in which they operate, or, if they should use a standard image across countries (Lopez-Lomeli, Llonch-Andreu, & Rialp-Criado, 2019). Logos, as part of a brands' corporate visual identity, may also be adjusted or selected for specific international markets (Foroudi, Melewar, Gupta, 2017). Overall, the lack of between country differences in the present study would support a global logo selection, rather than glocal approach, at least for companies operating in Spain and the U.S. who are choosing between V + I, icon or verbal logos. The lack of between country differences concurs with the cross-national study of Van der Lans et al., (2009) which found consistent consumer responses across countries based on logo design elements. Although some prior studies have found support for between country differences on some logo aspects such as color (Madden et al., 2000) or brand name (Foroudi et al., 2017), logo descriptiveness in this study did not seem to have a cross-national effect. The effect of logo descriptiveness on brand attitude was seen across countries, therefore, selecting a standard V + I logo or icon logo to be used in Spain and the U.S. would be advisable based on this study's results.

This study faced a number of limitations which may have influenced the results. First, the context in which the data was collected is relevant as it impacted the data collection process.

Data collection began around the peak of COVID-19, which meant that the survey was distributed via social media channels in the US and via the snowball effect instead of through university connections. Many of the Spanish participants were university students, so there was not an equal distribution of descriptive characteristics such as age and education between the two groups. US participants were older and most already held a degree. Secondly, the unclear logo recognition question prevents clear conclusions from being drawn about logo descriptiveness and brand recognition. Furthermore, the recorded response time may reflect confusion participants had with this section instead of reflecting the cognitive response of participants in processing the logos. Despite these limitations, this study can help to provide a basis for future research which can improve upon the limitations faced in this study.

Although the present study did not find any differences in response time related to processing fluency, Van Grinsven and Das (2015a) found that revolutionary logo changes influenced processing speed. Perhaps future research could perform more substantial logo descriptiveness changes to see if processing fluency would be affected by revolutionary logo descriptiveness redesigns. The present study used a different logo descriptiveness definition than Luffarelli, Mukesh and Mahmood (2019). As both types of logo descriptiveness are popular in logo design, additional research could compare which type of logo descriptiveness, logo descriptiveness related to the product or related to the brand name, results in more positive consumer brand evaluations. Little research exists on logo descriptiveness; therefore, potential topics remain uninvestigated in this area. Another challenging task for future research is performing cross-country research on logo redesign with familiar brands as previous research has found that prior exposure and familiarity with logos does play a role in processing (Reber, Schwarz, Winkielman, 2004). Ensuring that participants in both countries would have similar levels of familiarity with a brand through repeated exposure is tricky as some brands may be present in multiple countries but have a stronger brand presence in one country over another. This issue deserves further study because exposure may affect consumer preference for complex versus simple logos (Janiszewski & Meyvis, 2001). Thus, studying descriptiveness changes for familiar logos could confirm previous findings. The 2014 study by Van Grinsven and Das could provide a basis for this research as they found evidence that familiar and complex logos may be more positively evaluated and have higher brand recognition. Furthermore, Van Grinsven and Das (2015) showed that brand consciousness can influence consumer brand attitudes towards

substantial logo redesigns. This study was unable to incorporate familiarity, exposure, and brand consciousness into the experiment, but this would be a worthwhile research subject as it would make a meaningful addition to ongoing logo research by demonstrating how these factors may be related to logo descriptiveness.

The present study contributes to literature in two ways. First, it confirms and expands on the findings of Luffarelli, Mukesh and Mahmood (2019) by testing the effects of a different type of logo descriptiveness, namely, logo descriptiveness related to the brand name. Second, like the findings of Van Hooft, Van Mulken and Nederstigt (2013), the present study has provided evidence towards cultural convergence instead of distinct cultural differences related to tolerance in ambiguity across cultures. This study specifically focused on Spain and the US, so the findings can inform future research on differences, or lack thereof, that may be expected between the two countries in logo effects.

The findings from the present study may also provide practical advice for brands considering which communication strategy they would like to use across markets. In returning to the communication strategies: global, local or glocal (Lopez-Lomeli, Llonch-Andreu, & Rialp-Criado, 2019), since there were no differences due to nationality and logo descriptiveness, brands operating in both the US and Spain may wish to use a global strategy rather than a glocal or local strategy in terms of the descriptiveness of their logo design. The findings related to brand attitude and logo descriptiveness prompt the following advice for companies who wish to operate in both Spain and the US. In order to pick a logo that may produce a positive affect from consumers across countries, the results from the present study would suggest that V + I or icon logos are better selections than verbal logos in this regard.

As a recent design trend towards simpler logos in logo redesign has been observed (Kim & Lim, 2019; Luffarelli, Mukesh & Mahmood, 2019), investigating logo descriptiveness is relevant for advising companies on the potential effects associated with such a change. From the perspective of a company, such a change is relatively easy. The logo can undergo an evolutionary redesign by simply eliminating an element; for example, Dunkin' dropping the 'Donuts' from their brand name and logo. However, in the present study and the first study to focus on logo descriptiveness (Luffarelli, Mukesh & Mahmood, 2019), more descriptive logos seem to be more positively evaluated by potential consumers, even though brands seem to be simplifying their logos rather than making them more descriptive. Therefore, simplifying one's

logo may not always be wise if positive brand attitudes are desired, however many other factors should also be considered and researched as logo descriptiveness is, but one factor related to logo effects. Evidently, less isn't always more when it comes to logo redesign and future research can continue to help clarify which logo factors are the most relevant for brands selecting logos to achieve their communication objectives, especially in a cross-cultural setting.

References

- A Bullseye View (2014, April 24). *Bullseye Love: The History of Target's Logo*. Consulted at: <https://corporate.target.com/article/2014/04/bullseye-love-history-of-target-logo>
- Airey, D. (2009). *Logo design love: A guide to creating iconic brand identities*. Berkeley, CA: Pearson Education.
- Arquero, J.L. & McLain, D.L. (2010). Preliminary validation of the Spanish version of the multiple stimulus types ambiguity tolerance scale (MSTAT-II). *The Spanish Journal of Psychology*, 13(1), 476-484.
- Barthes, R. (1964). Rhétorique de l'image. *Communications*, 4, 40-51.
- Bergkvist, L., Eiderbäck, D., & Palombo, M. (2012). The brand communication effects of using a headline to prompt the key benefit in ads with pictorial metaphors. *Journal of Advertising*, 41(2), 67-76.
- CATch up (2016, March 15). *How the jumping cat was invented*. Consulted at: <https://www.puma-catchup.com/story-of-puma-logo/>
- Dunkin' Brands Media Relations (2018, September 25). *Welcome to Dunkin': Dunkin' Donuts Reveals New Brand Identity*. Consulted at: <https://news.dunkindonuts.com/news/releases-20180925>
- Dutch Game Industry Directory (2020). *Companies*. Consulted at: <https://dutchgameindustry.directory/?page=companies>
- Feloni, R. (2015, October 27). *Did you notice that these 20 companies changed their logos this year?* Business Insider. Consulted at <http://www.businessinsider.com/corporate-logo-changes-2015-10>
- Foroudi, P., Melewar, T. C., & Gupta, S. (2017). Corporate logo: history, definition, and components. *International Studies of Management & Organization*, 47(2), 176-196.
- Foroudi, P., Melewar, T. C., & Gupta, S. (2014). Linking corporate logo, corporate image, and reputation: An examination of consumer perceptions in the financial setting. *Journal of Business Research*, 67(11), 2269-2281.
- Foroudi, P., Foroudi, P., Hafeez, K., Hafeez, K., Foroudi, M. M., & Foroudi, M. M. (2017). Evaluating the impact of corporate logos towards corporate reputation: a case of Persia and Mexico. *Qualitative Market Research: An International Journal*, 20(2), 158-180.

- Furnham, A. & T. Ribchester (1995). Tolerance of ambiguity: A review of the concept, its measurement and applications. *Current Psychology*, 14(3), 179-199.
- Graphic Design Forum (2019, November). *How do you like the new Microsoft Edge logo?* Consulted at: <https://www.graphicdesignforum.com/t/how-do-you-like-the-new-microsoft-edge-logo/10648>
- Henderson, P. W., Cote, J. A. (1998). Guidelines for selecting or modifying logos. *The Journal of Marketing*, 14-30.
- Hitti, N. (2019, April 25). *IKEA's iconic blue and yellow logo made "future proof" in subtle redesign by Seventy Agency*. Consulted at: <https://www.dezeen.com/2019/04/25/ikea-logo-redesign-seventy-agency/>
- Hofstede, G. (1984). *Culture's Consequences: International Differences in Work-related Values*. Sage, Newbury Park, CA.
- Hofstede, G. (2001). *Culture's consequences: Comparing values, behaviors, institutions, and organizations across nations*. Thousand Oaks, CA: Sage Publications.
- Janiszewski, C. & Meyvis, T. (2001). Effects of brand logo complexity, repetition, and spacing on fluency and judgement. *Journal of Consumer Research*, 28, 18-32.
- Jun, J. W., & Lee, H. S. (2007). Cultural differences in brand designs and tagline appeals. *International Marketing Review*, 24(4), 474-491.
- Kim, M. J., & Lim, J. H. (2019). A comprehensive review on logo literature: research topics, findings, and future directions. *Journal of Marketing Management*, 1-75.
- Logastar (2020, March 27). *History and meaning behind Adidas logo*. Consulted at: <https://www.logaster.com/blog/adidas-logo/>
- Logopedia (N.d.). *Domino's*. Consulted at: <https://logos.fandom.com/wiki/Domino%27s>
- Lopez-Lomeli, M.A., Llonch-Andreu J., & Rialp-Criado, J. (2019). Local, global and glocal consumer brand relationships: Relación entre marcas de consumo locales, globales y glociales. *Spanish Journal of Marketing*, 23(3), 437-459.
- Luffarelli, J., Mukesh, M., & Mahmood, A. (2019). Let the logo do the talking: the influence of logo descriptiveness on brand equity. *Journal of Marketing Research*, 56(5), 862-878.
- Machado, J. C., de Carvalho, L. V., Costa, P., & Lencastre, P. (2012). Brand mergers: examining consumers' responses to name and logo design. *Journal of Product and Brand Management*, 21(6), 418-427. doi: 10.1108/10610421211264900

- Madden, T. J., Hewett, K., & Roth, M. S. (2000). Managing images in different cultures: a cross-national study of color meanings and preferences. *Journal of International Marketing*, 8(4), 90–107.
- Madzar, S. (2005). Subordinates' information inquiry in uncertain times: A cross cultural consideration of leadership style effect. *International Journal of Cross Cultural Management*, 5(3), 255-274.
- Martyris, N. (2016). *Make America bake again: A history of cake in the U.S.* Consulted at: <https://www.npr.org/sections/thesalt/2016/11/07/501032393/make-america-bake-again-a-history-of-cake-in-the-u-s>
- McLain, D. (2009). Evidence of the properties of an ambiguity tolerance measure: the multiple stimulus types ambiguity tolerance scale-II (MSTAT-II), *Psychological Reports*, 2009(105), 975-988.
- Melewar, T. C. (2001). Measuring visual identity: a multi-construct study. *Corporate Communications: An International Journal*, 6(1), 36–42.
- Miele, D.B., & Molden, D. C. (2010). Naive theories of intelligence and the role of processing fluency in perceived comprehension. *Journal of Experimental Psychology: General*, 139(3), 535.
- Phillips, B. & McQuarrie, E. F. (2004). Beyond visual metaphor: A new typology of visual rhetoric in advertising. *Marketing Theory*, 4(1), 113-136.
- Phillips, B. J. (2000). The impact of verbal anchoring on consumer response to image ads. *Journal of Advertising*, 29(1), 15-24.
- Reber, R., Schwarz, N., & Winkielman, P. (2004). Processing fluency and aesthetic pleasure: Is beauty in the perceiver's processing experience?. *Personality and Social Psychology Review*, 8(4), 364-382.
- Rogaza, R. (2020, January 20). *The Domino's Logo*. Consulted at: <https://www.logaster.com/blog/dominos-logo/>
- Rosson, P., & Brooks, M. (2004). M&as and corporate visual identity: An exploratory study. *Corporate Reputation Review*, 7(2), 181-194. doi:10.1057/palgrave.crr.1540219
- Starbucks. (2020). *A look at the future of Starbucks*. Consulted at: <https://www.starbucks.com/preview>

- Van den Bosch, A. L. M., Elving, W. J. L., & de Jong, M. D. T. (2006). The impact of organisational characteristics on corporate visual identity. *European Journal of Marketing*, 40(7/8), 870-885.
- Van Grinsven, B (2016). *Logo design and logo change: Experimental tests of consumer responses*. [Doctoral thesis, Vrije Universiteit Amsterdam].
- Van Grinsven, B., & Das, E. (2014). Logo design in marketing communications; Brand logo complexity moderates exposure effects on brand recognition and brand attitude. *Journal of Marketing Communications*, (ahead of print), 1-15.
- Van Grinsven, B., & Das, E. (2015). I love you just the way you are: When large degrees of logo change hurt information processing and brand evaluation. In *Advances in Advertising Research: The Digital, The Classic, The Subtle and The Alternative (Vol. VI)*. Wiesbaden: Springer.
- Van Grinsven, B. & Das, E. (2015a). Processing different degrees of logo change: When higher levels of brand consciousness decreases openness to substantial logo changes, 49 (11/12), 1710 - 1727. *European Journal of Marketing*.
- Van Hooft, A. & Das., E. (2015). Change will do you good: paradoxical effects of higher degrees of logo change on logo recognition, logo appreciation, core values fit and brand attitudes. bridging the Gap. *Proceedings of the 14th international Conference on Research in Advertising*, London: Birkbeck School of Business Economics and Informatics / University of London. Radboud Repository.
- Van Hooft, A., Van Mulken, M., & Nederstigt, U. (2013). Cultural differences? Visual metaphor in advertising: Comprehension and tolerance of ambiguity in four European countries. In Sara Rosengren, Micael Dahln & Shintaro Okazki (Eds.), *Advances in Advertising Research (Vol. IV)*, pp. 351 – 364). Wiesbaden: Springer.
- Van der Lans, R., Cote, J. A., Cole, C. A., Leong, S. M., Smidts, A., Henderson, P. W., ... Schmitt, B. H. (2009). Cross-national logo evaluation analysis: an individual-level approach. *Marketing Science*, 28(5), 968–985. <https://doi-org.ru.idm.oclc.org/10.1287/mksc.1080.0462>
- Wang, M. & Li, X. (2017). Effects of the aesthetic design of icons on app downloads: evidence from an android market. *Electronic Commerce Research*, 17, 83 – 102.
- Wendy's (2020). *The Wendy's story*. Consulted at: <https://www.wendys.com/wendys-story>

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Appendix

A. Extra results

Table 1 Means and standard deviations (between brackets) for tolerance of ambiguity between nationalities.

| Americans | Spanish |
|-----------------|-----------------|
| <i>M(SD)[N]</i> | <i>M(SD)[N]</i> |
| 4.42(0.78)[113] | 4.18(0.85)[86] |

B. Questionnaire – American Version

Thesis Research - American Version

Start of Block: Block 1

Consent INFORMATION AND CONSENT You are invited to participate in a research project focused on logo redesign across cultures. This research project is being conducted by Becca Anderson, a Master's student, and Dr. A.P.J.V. van Hooft, an assistant professor for the Department of Language and Communication at Radboud University. This research will be used for Becca's International Business Communication Master's thesis. The procedure involves filling out an online survey. The questions concern your evaluations of different logos from Dutch online game companies. Filling out the survey will take approximately 10 minutes. What will happen to my data? The research data we collect during this study will be used by scientists as part of data sets, articles and presentations. The anonymized research data is accessible to other scientists for a period of at least 10 years. When we share data with other researchers, these data cannot be traced back to you.

Voluntary participation. Your participation in this research is voluntary. This means that you can withdraw your participation and consent at any time during the research, without giving a reason. All data we have collected from you will be deleted permanently.

More information? Should you want more information on this research study, please contact Becca Anderson or Dr. A.P.J.V. van Hooft .

CONSENT: Please select your choice below. Clicking on the "Agree" button below indicates that:• you have read the above information• you voluntarily agree to participate• you are at least 16 years of ageIf you do not wish to participate in the research study, please decline participation by clicking on the "I do not want to participate" button.

Agree, proceed to the survey (1)

I do not want to participate (2)

End of Block: Block 1

Start of Block: Condition 1 (V + I)

Q148 On the next few pages you will see a series of logos used by Dutch online gaming companies who are considering redesigning their logos. You are kindly requested to take a look at these logos and form your opinions about them. After looking at these logos, you will be asked to indicate your feelings about some of these logos.

bg - vi



yc - vi



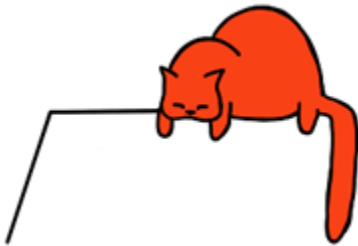
Page Break

lc - vi

LITTLE CHICKEN



rk - vi



ROOFKAT

Page Break

wp - vi



WOODEN PLANK

hv - vi

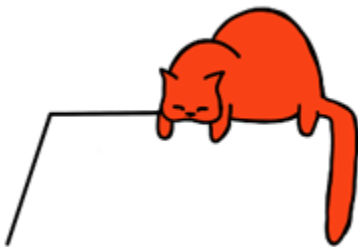


HAPPY
VOLCANO

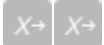
Page Break

Time_1_BR_RK Timing
First Click (1)
Last Click (2)
Page Submit (3)
Click Count (4)

Stim_1_RK



ROOFKAT



BR_1_RK Please indicate your response to the following question:

Do you recognize this logo?

| | 1 (1) | 2 (2) | 3 (3) | 4 (4) | 5 (5) | 6 (6) | 7 (7) | |
|--------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------|
| No, definitely not | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Yes, definitely |

Page Break

Time_1_BA_RK Timing

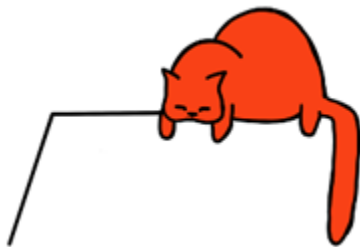
First Click (1)

Last Click (2)

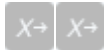
Page Submit (3)

Click Count (4)

Stim_1_RK



ROOFKAT



BA_1_RK

Based on your evaluation of the brand logo above, please indicate your feelings regarding the following statements.

I believe this brand is:

| | 1 (1) | 2 (2) | 3 (3) | 4 (4) | 5 (5) | 6 (6) | 7 (7) | |
|-------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------|
| Bad | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Good |
| Terrible | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Nice |
| Unfavorable | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Favorable |
| Undesirable | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Desirable |

Page Break

Time_1_BR_YC Timing

First Click (1)

Last Click (2)

Page Submit (3)

Click Count (4)

Stim_1_YC



BR_1_YC Please indicate your response to the following question:

Do you recognize this logo?

| | 1 (1) | 2 (2) | 3 (3) | 4 (4) | 5 (5) | 6 (6) | 7 (7) | |
|--------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|--------------------|
| No, definitely not | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Yes, definitely |

Page Break

Time_1_BA_YC Timing

First Click (1)

Last Click (2)

Page Submit (3)

Click Count (4)

Stim_1_YC



BA_1_YC

Based on your evaluation of the brand logo above, please indicate your feelings regarding the following statements.

I believe this brand is:

| | 1 (1) | 2 (2) | 3 (3) | 4 (4) | 5 (5) | 6 (6) | 7 (7) | |
|-------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------|
| Bad | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Good |
| Terrible | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Nice |
| Unfavorable | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Favorable |
| Undesirable | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Desirable |

Page Break

Time_1_BR_WP Timing

First Click (1)

Last Click (2)

Page Submit (3)

Click Count (4)

Stim_1_WP



WOODEN PLANK



BR_1_WP Please indicate your response to the following question:
Do you recognize this logo?

| | 1 (1) | 2 (2) | 3 (3) | 4 (4) | 5 (5) | 6 (6) | 7 (7) | |
|--------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|--------------------|
| No, definitely not | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Yes, definitely |

Page Break

Time_1_BA_WP Timing

First Click (1)

Last Click (2)

Page Submit (3)

Click Count (4)

Stim_1_WP



BA_1_WP

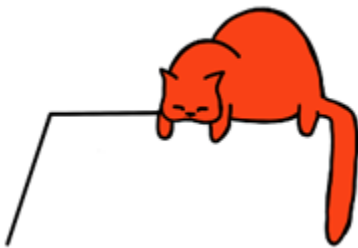
Based on your evaluation of the brand logo above, please indicate your feelings regarding the following statements.

I believe this brand is:

| | 1 (1) | 2 (2) | 3 (3) | 4 (4) | 5 (5) | 6 (6) | 7 (7) | |
|-------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------|
| Bad | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Good |
| Terrible | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Nice |
| Unfavorable | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Favorable |
| Undesirable | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Desirable |

Page Break

rk - vi



ROOFKAT



rk - vi - liking Please indicate the extent to which you agree with the following statement:

I like this logo.

| | 1 (1) | 2 (2) | 3 (3) | 4 (4) | 5 (5) | 6 (6) | 7 (7) | |
|-------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------------|
| Strongly disagree | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Strongly agree |

Page Break

yc - vi



yc - vi - liking Please indicate the extent to which you agree with the following statement:

I like this logo.

| | 1 (1) | 2 (2) | 3 (3) | 4 (4) | 5 (5) | 6 (6) | 7 (7) | |
|-------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------------|
| Strongly disagree | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Strongly agree |

Page Break

wp - vi



wp - vi - liking Please indicate the extent to which you agree with the following statement:

I like this logo.

| | 1 (1) | 2 (2) | 3 (3) | 4 (4) | 5 (5) | 6 (6) | 7 (7) | |
|-------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------------|
| Strongly disagree | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Strongly agree |

End of Block: Condition 1 (V + I)

Start of Block: Tolerance for ambiguity

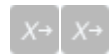
Q97 Over the next few pages you will see a series of statements. Please indicate the extent to which you agree with each statement on a scale of strongly disagree to strongly agree.



TA_1

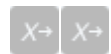
I don't tolerate ambiguous situations well.

| | 1 (1) | 2 (2) | 3 (3) | 4 (4) | 5 (5) | 6 (6) | 7 (7) | |
|-------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------------|
| Strongly disagree | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Strongly agree |



TA_2 I would rather avoid solving a problem that must be viewed from several different perspectives.

| | 1 (1) | 2 (2) | 3 (3) | 4 (4) | 5 (5) | 6 (6) | 7 (7) | |
|-------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------------|
| Strongly disagree | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Strongly agree |



TA_3 I try to avoid situations that are ambiguous.

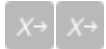
| | 1 (1) | 2 (2) | 3 (3) | 4 (4) | 5 (5) | 6 (6) | 7 (7) | |
|-------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------------|
| Strongly disagree | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Strongly agree |

Page Break



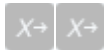
TA_4 I prefer familiar situations to new ones.

| | 1 (1) | 2 (2) | 3 (3) | 4 (4) | 5 (5) | 6 (6) | 7 (7) | |
|-------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------------|
| Strongly disagree | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Strongly agree |



TA_5 Problems that cannot be considered from just one point of view are a little threatening.

| | 1 (1) | 2 (2) | 3 (3) | 4 (4) | 5 (5) | 6 (6) | 7 (7) | |
|-------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------------|
| Strongly disagree | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Strongly agree |



TA_6 I avoid situations that are too complicated for me to easily understand.

| | 1 (1) | 2 (2) | 3 (3) | 4 (4) | 5 (5) | 6 (6) | 7 (7) | |
|-------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------------|
| Strongly disagree | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Strongly agree |

Page Break



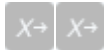
TA_7 I am tolerant of ambiguous situations.

| | 1 (1) | 2 (2) | 3 (3) | 4 (4) | 5 (5) | 6 (6) | 7 (7) | |
|-------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------------|
| Strongly disagree | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Strongly agree |



TA_8 I enjoy tackling problems that are complex enough to be ambiguous.

| | 1 (1) | 2 (2) | 3 (3) | 4 (4) | 5 (5) | 6 (6) | 7 (7) | |
|-------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------------|
| Strongly disagree | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Strongly agree |



TA_9 I try to avoid problems that don't seem to have only one "best solution"

| | 1 (1) | 2 (2) | 3 (3) | 4 (4) | 5 (5) | 6 (6) | 7 (7) | |
|-------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------------|
| Strongly disagree | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Strongly agree |

Page Break



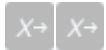
TA_10 I generally prefer novelty over familiarity.

| | 1 (1) | 2 (2) | 3 (3) | 4 (4) | 5 (5) | 6 (6) | 7 (7) | |
|-------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------------|
| Strongly disagree | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Strongly agree |



TA_11 I dislike ambiguous situations.

| | 1 (1) | 2 (2) | 3 (3) | 4 (4) | 5 (5) | 6 (6) | 7 (7) | |
|-------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------------|
| Strongly disagree | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Strongly agree |



TA_12 I find it hard to make a choice when the outcome is uncertain.

| | 1 (1) | 2 (2) | 3 (3) | 4 (4) | 5 (5) | 6 (6) | 7 (7) | |
|-------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------------|
| Strongly disagree | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Strongly agree |



TA_13 I prefer a situation in which there is some ambiguity.

| | 1 (1) | 2 (2) | 3 (3) | 4 (4) | 5 (5) | 6 (6) | 7 (7) | |
|-------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------------|
| Strongly disagree | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Strongly agree |

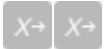
End of Block: Tolerance for ambiguity

Start of Block: Demographic Information



Gender What is your gender?

- Male (1)
 - Female (2)
 - Other (3)
 - Prefer not to say (4)
-



Nationality What is your nationality?

- American (1)
 - Other (2) _____
-

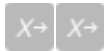


Age What is your age?



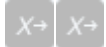
Educ What is the highest level of school you have completed or the highest degree you have received?

- Elementary Education (1)
- High school graduate (high school diploma or equivalent including GED) (2)
- Bachelor's degree in college (3)
- Master's degree (4)
- Doctoral degree (5)
- Professional degree (JD, MD) (6)



State In which state do you currently reside?

▼ Alabama (1) ... I do not reside in the United States (53)



Games Please indicate the extent to which you agree with the following statement:

I love playing online games.

| | 1 (1) | 2 (2) | 3 (3) | 4 (4) | 5 (5) | 6 (6) | 7 (7) | |
|-------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------------|
| Strongly disagree | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Strongly agree |

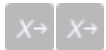
Page Break



Logo_pref_vi Please indicate the extent to which you agree with the following statements:

I prefer logos that include both and icon and text.

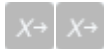
| | 1 (1) | 2 (2) | 3 (3) | 4 (4) | 5 (5) | 6 (6) | 7 (7) | |
|-------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------------|
| Strongly disagree | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Strongly agree |



Logo_pref_v

I prefer logos that only include a brand name.

| | 1 (1) | 2 (2) | 3 (3) | 4 (4) | 5 (5) | 6 (6) | 7 (7) | |
|-------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------------|
| Strongly disagree | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Strongly agree |



Logo_pref_i

I prefer logos that only include an icon.

| | 1 (1) | 2 (2) | 3 (3) | 4 (4) | 5 (5) | 6 (6) | 7 (7) | |
|-------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------------|
| Strongly disagree | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Strongly agree |

End of Block: Demographic Information

C. Questionnaire – Spanish Version

Thesis Research - Spanish Version

Start of Block: Block 1

Consent **INFORMACIÓN Y CONSENTIMIENTO** Usted está invitado a participar en un proyecto de investigación centrado en el rediseño de logotipos en un contexto internacional y transcultural. Este proyecto de investigación está siendo llevado a cabo por Becca Anderson, estudiante de maestría de la carrera de *International Business Communication*, y el Dr. Andreu van Hooft, miembro del Departamento de Lengua y Comunicación de la Universidad de Radboud (Países Bajos). Le invitamos a que visualice una serie de imágenes y después responda las preguntas de este experimento en línea. Estamos interesados en su opinión sobre una serie de logotipos de compañías holandesas de juegos en línea. Completar la encuesta le tomará aproximadamente unos 10 minutos. **¿Qué pasará con mis datos?** Los datos que recopilamos durante este experimento siempre serán anónimos y serán utilizados exclusivamente con fines científicos como (parte de) base de datos para artículos y presentaciones. Los datos anonimizados de la investigación sólo serán accesibles a los científicos participantes en este proyecto. Según las normas de la ética científica, los datos deben estar a disposición de otros científicos por un período de al menos 10 años. En el caso de que compartamos los datos con otros investigadores, le garantizamos el anonimato de su participación. **Sobre su participación voluntaria** Su participación en esta investigación es voluntaria. Esto significa que puede dejar de participar en este experimento en cualquier momento y sin dar una razón. En este caso, todos los datos recopilados se eliminarán de forma permanente. **¿Más información?** Si desea obtener más información sobre este experimento, puede ponerse en contacto con Becca Anderson o con el Dr. Andreu van Hooft.

CONSENTIMIENTO: Seleccione su elección a continuación.

Al hacer clic en el botón "Acepto" indica que ha leído la información anterior y acepta voluntariamente participar en este experimento y tiene al menos 16 años de edad. Si no desea participar en el estudio de investigación haga clic en el botón "No quiero participar".

- Sí, acepto realizar el experimento (1)
- No, no quiero participar (2)

End of Block: Block 1

Start of Block: Condition 1 (V + I)

information En las próximas páginas verá una serie de logotipos utilizados por compañías holandesas de juegos en línea que están considerando rediseñar sus logotipos. Le rogamos que eche un vistazo a estos logotipos y formule sus opiniones sobre ellos. Después de mirar estos logotipos, se le pedirá que indique sus opiniones sobre algunos de estos logotipos. Queremos recordarle que no hay respuestas correctas o incorrectas. Lo importante es su opinión.

Page Break

bg - vi



la jirafa
azul

yc - vi



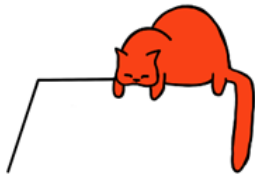
EL PASTEL AMARILLO

Page Break

lc - vi

EL POLLITO PEQUEÑO 

rk - vi



EL GATO EN EL TEJADO

Page Break

wp - vi



LA TABLA DE MADERA

hv - vi



EL VOLCÁN FELIZ

Page Break

SP_Time_1_BR_RK Timing

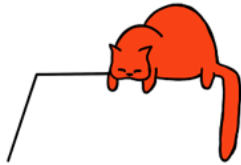
First Click (1)

Last Click (2)

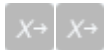
Page Submit (3)

Click Count (4)

Stim_1_RK



EL GATO EN EL TEJADO



SP_BR_1_RK Por favor indique su respuesta a la siguiente pregunta:

¿Reconoce este logotipo?

| | 1 (1) | 2 (2) | 3 (3) | 4 (4) | 5 (5) | 6 (6) | 7 (7) | |
|-----------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-------------------|
| No, en absoluto | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Sí, absolutamente |

Page Break

SP_Time_1_BA_RK Timing

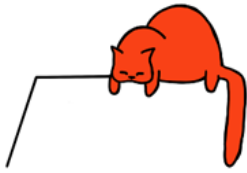
First Click (1)

Last Click (2)

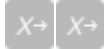
Page Submit (3)

Click Count (4)

Stim_1_RK



EL GATO EN EL TEJADO



SP_BA_1_RK

Según su evaluación del logotipo de la marca anterior, indique sus sentimientos con respecto a las siguientes declaraciones.

Esta marca me parece:

| | 1 (1) | 2 (2) | 3 (3) | 4 (4) | 5 (5) | 6 (6) | 7 (7) | |
|--------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------|
| Mala | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Buena |
| Terrible | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Bonita |
| Desfavorable | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Favorable |
| Indeseable | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Deseable |

Page Break

SP_Time_1_BR_YC Timing

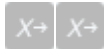
First Click (1)

Last Click (2)

Page Submit (3)

Click Count (4)

Stm_1_YC



SP_BR_1_YC Por favor indique su respuesta a la siguiente pregunta:

¿Reconoce este logotipo?

| | 1 (1) | 2 (2) | 3 (3) | 4 (4) | 5 (5) | 6 (6) | 7 (7) | |
|-----------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-------------------|
| No, en absoluto | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Sí, absolutamente |

Page Break

SP_Time_1_BA_YC Timing

First Click (1)

Last Click (2)

Page Submit (3)

Click Count (4)

Stim_1_YC





SP_BA_1_YC

Según su evaluación del logotipo de la marca anterior, indique sus sentimientos con respecto a las siguientes declaraciones.

Esta marca me parece:

| | 1 (1) | 2 (2) | 3 (3) | 4 (4) | 5 (5) | 6 (6) | 7 (7) | |
|--------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------|
| Mala | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Buena |
| Terrible | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Bonita |
| Desfavorable | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Favorable |
| Indeseable | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Deseable |

Page Break

SP_Time_1_BR_WP Timing

First Click (1)

Last Click (2)

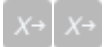
Page Submit (3)

Click Count (4)

Stim_1_WP



LA TABLA DE MADERA



SP_BR_1_WP Por favor indique su respuesta a la siguiente pregunta:

¿Reconoce este logotipo? Please indicate your response to the following question:

Do you recognize this logo?

| | 1 (1) | 2 (2) | 3 (3) | 4 (4) | 5 (5) | 6 (6) | 7 (7) | |
|-----------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-------------------|
| No, en absoluto | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Sí, absolutamente |

Page Break

SP_Time_1_BA_WP Timing

First Click (1)

Last Click (2)

Page Submit (3)

Click Count (4)

Stim_1_WP



LA TABLA DE MADERA



SP_BA_1_WP

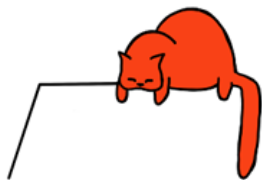
Según su evaluación del logotipo de la marca anterior, indique sus sentimientos con respecto a las siguientes declaraciones.

Esta marca me parece:

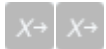
| | 1 (1) | 2 (2) | 3 (3) | 4 (4) | 5 (5) | 6 (6) | 7 (7) | |
|--------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------|
| Mala | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Buena |
| Terrible | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Bonita |
| Desfavorable | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Favorable |
| Indeseable | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Deseable |

Page Break

rk - vi



EL GATO EN EL TEJADO



rk - vi - liking Indique hasta qué punto está de acuerdo con las siguientes declaraciones:

Me gusta este logotipo

| | 1 (1) | 2 (2) | 3 (3) | 4 (4) | 5 (5) | 6 (6) | 7 (7) | |
|--------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Totalmente en desacuerdo | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Totalmente de acuerdo |

Page Break

yc - vi



yc - vi - liking Indique hasta qué punto está de acuerdo con las siguientes declaraciones:

Me gusta este logotipo

| | 1 (1) | 2 (2) | 3 (3) | 4 (4) | 5 (5) | 6 (6) | 7 (7) | |
|--------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Totalmente en desacuerdo | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Totalmente de acuerdo |

Page Break

wp - vi



LA TABLA DE MADERA



wp - vi - liking Indique hasta qué punto está de acuerdo con las siguientes declaraciones:

Me gusta este logotipo

| | 1 (1) | 2 (2) | 3 (3) | 4 (4) | 5 (5) | 6 (6) | 7 (7) | |
|--------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Totalmente en desacuerdo | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Totalmente de acuerdo |

End of Block: Condition 1 (V + I)

Start of Block: Tolerance for ambiguity

Q97 Indique hasta qué punto está de acuerdo con las siguientes declaraciones:



SP_TA_1 No tolero bien situaciones ambiguas

| | 1 (1) | 2 (2) | 3 (3) | 4 (4) | 5 (5) | 6 (6) | 7 (7) | |
|--------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Totalmente en desacuerdo | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Totalmente de acuerdo |



SP_TA_2 Prefiero evitar resolver problemas que deben verse desde distintas perspectivas

| | 1 (1) | 2 (2) | 3 (3) | 4 (4) | 5 (5) | 6 (6) | 7 (7) | |
|--------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Totalmente en desacuerdo | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Totalmente de acuerdo |



SP_TA_3 Intento evitar situaciones que son ambiguas

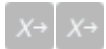
| | 1 (1) | 2 (2) | 3 (3) | 4 (4) | 5 (5) | 6 (6) | 7 (7) | |
|--------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Totalmente en desacuerdo | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Totalmente de acuerdo |

Page Break



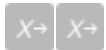
SP_TA_4 Prefiero situaciones que me son familiares a otras nuevas

| | 1 (1) | 2 (2) | 3 (3) | 4 (4) | 5 (5) | 6 (6) | 7 (7) | |
|--------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Totalmente en desacuerdo | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Totalmente de acuerdo |



SP_TA_5 Los problemas que no pueden ser considerados desde un único punto de vista me intimidan un poco

| | 1 (1) | 2 (2) | 3 (3) | 4 (4) | 5 (5) | 6 (6) | 7 (7) | |
|--------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Totalmente en desacuerdo | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Totalmente de acuerdo |



SP_TA_6 Evito situaciones que son demasiado complicadas como para que yo las comprenda o interprete fácilmente

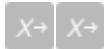
| | 1 (1) | 2 (2) | 3 (3) | 4 (4) | 5 (5) | 6 (6) | 7 (7) | |
|--------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Totalmente en desacuerdo | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Totalmente de acuerdo |

Page Break



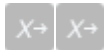
SP_TA_7 Soporto bien situaciones ambiguas

| | 1 (1) | 2 (2) | 3 (3) | 4 (4) | 5 (5) | 6 (6) | 7 (7) | |
|--------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Totalmente en desacuerdo | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Totalmente de acuerdo |



SP_TA_8 Me gusta enfrentarme a problemas lo suficientemente complejos para ser ambiguos

| | 1 (1) | 2 (2) | 3 (3) | 4 (4) | 5 (5) | 6 (6) | 7 (7) | |
|--------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Totalmente en desacuerdo | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Totalmente de acuerdo |



SP_TA_9 Intento evitar problemas que no parecen tener una solución claramente mejor que otros

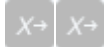
| | 1 (1) | 2 (2) | 3 (3) | 4 (4) | 5 (5) | 6 (6) | 7 (7) | |
|--------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Totalmente en desacuerdo | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Totalmente de acuerdo |

Page Break



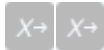
SP_TA_10 Generalmente prefiero novedad a situaciones conocidas

| | 1 (1) | 2 (2) | 3 (3) | 4 (4) | 5 (5) | 6 (6) | 7 (7) | |
|--------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Totalmente en desacuerdo | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Totalmente de acuerdo |



SP_TA_11 Me disgustan las situaciones ambiguas

| | 1 (1) | 2 (2) | 3 (3) | 4 (4) | 5 (5) | 6 (6) | 7 (7) | |
|--------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Totalmente en desacuerdo | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Totalmente de acuerdo |



SP_TA_12 Encuentro difícil elegir cuando el resultado es incierto

| | 1 (1) | 2 (2) | 3 (3) | 4 (4) | 5 (5) | 6 (6) | 7 (7) | |
|--------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Totalmente en desacuerdo | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Totalmente de acuerdo |



SP_TA_13 Prefiero situaciones en las que hay cierta ambigüedad

| | 1 (1) | 2 (2) | 3 (3) | 4 (4) | 5 (5) | 6 (6) | 7 (7) | |
|--------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Totalmente en desacuerdo | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Totalmente de acuerdo |

End of Block: Tolerance for ambiguity

Start of Block: Demographic Information



SP_Gender ¿Cuál es su género?

- Masculino (1)
 - Femenino (2)
 - Otro (3)
 - Prefiero no decirlo (4)
-



nationality ¿Cuál es su nacionalidad?

- Española (1)
 - Otra (2) _____
-

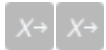


SP_Age ¿Cuántos años tiene?



SP_Educ ¿Cuál es el nivel de enseñanza más alto por usted completado?

- Enseñaza primaria (1)
- Enseñanza secundaria (2)
- Dimplomatura/Bachelor (3)
- Maestría/Licenciatura (4)
- Doctorado (5)
- Enseñaza profesional (6)



SP_Games Indique en qué medida está de acuerdo con la siguiente declaración:

Me gusta jugar juegos en línea.

| | 1 (1) | 2 (2) | 3 (3) | 4 (4) | 5 (5) | 6 (6) | 7 (7) | |
|--------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Totalmente en desacuerdo | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Totalmente de acuerdo |

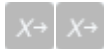
Page Break



SP_Logo_pref_vi Indique hasta qué punto está de acuerdo con las siguientes declaraciones:

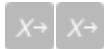
Prefiero los logotipos que incluyen imágenes y texto.

| | 1 (1) | 2 (2) | 3 (3) | 4 (4) | 5 (5) | 6 (6) | 7 (7) | |
|--------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Totalmente en desacuerdo | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Totalmente de acuerdo |



SP_Logo_pref_v **Prefiero los logotipos que incluyen el nombre de la marca.**

| | 1 (1) | 2 (2) | 3 (3) | 4 (4) | 5 (5) | 6 (6) | 7 (7) | |
|--------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Totalmente en desacuerdo | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Totalmente de acuerdo |



SP_Logo_pref_i **Prefiero los logotipos que solo contienen imágenes.**

| | 1 (1) | 2 (2) | 3 (3) | 4 (4) | 5 (5) | 6 (6) | 7 (7) | |
|--------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Totalmente en desacuerdo | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Totalmente de acuerdo |

End of Block: Demographic Information

D. Checklist Ethics review

Preliminaries

This checklist should be used to determine whether your proposed thesis research needs to be formally reviewed for approval by the Ethics Committee (ETC-GW). If you determine that your thesis research needs to be formally reviewed for approval, your supervisor (under whose responsibility you will conduct the research) should apply to the ETC-GW for the approval procedure. For further information, see <https://www.ru.nl/eac-humanities/>

Thesis research conducted in the CLS labs (12th floor, Erasmus building) should ALWAYS be submitted for formal approval by the ETC-GW. For further information, see <https://www.ru.nl/eac-humanities/>

Per 1 October 2018, ALL CLS research that plans to use SONA to recruit respondents or subjects needs formal approval from the ETC-GW. For further information, see <https://www.ru.nl/eac-humanities/>. If the thesis research is to be conducted as part of a supervisor's research project that has already been approved by the ETC-GW, additional approval for the specific thesis research is not required.

Any thesis research conducted as part of an existing CLS project that has already approved by the ETC-GW or a supervisor's individual research that has already approved by the ETC-GW does not need to be approved again.

This checklist refers to criteria (e.g. respondent discomfort, risks and deception) and methods (in relation to e.g. gaining consent, data storage) that are of central importance to the testing conducted by the ETC-GW. All criteria and behaviours are described in the ETC-GW protocol, see <https://www.ru.nl/eac-humanities/protocol/vm/protocol-ethics-assessment-research/>.

You should use this checklist to check for yourself whether your proposed thesis research falls within the standard research methods defined by the ETC-GW or whether it needs formal approval from the ETC-GW. You should store the outcome of your review (=your completed checklist and the outcome) so that you can demonstrate at all times that you have gone through the proper procedure. Please make sure you submit your completed checklist with your research proposal.

If the outcome of completing the checklist is that your proposed thesis research has characteristics that are not covered by the standard research methods and approaches defined by the ETC-GW, you should formally have your research tested and approved by the ETC-GW – if this is indeed the case with respect to an aspect of your research, you will be referred to the [review procedure](#) in the checklist. Contact your supervisor if your proposed research needs approval from the ETC-GW (see also A.).

Research that can be regarded as subject to the Wet Medisch-wetenschappelijk Onderzoek met mensen (WMO) can NOT be formally assessed for approval by the ETC-GW, but needs to be reviewed for approval by a recognized Medical Ethics Committee (METC). This is why a number of questions at the start of this checklist refer to the potential medical character of the proposed research. Research is subject to the WMO if it is regarded as medical-scientific and if subjects

are subjected to medical treatments or required to behave or act in a certain way. See [METC protocol or not?](#)

Checklist Ethics Review

Name: Becca Anderson

Student number: s1000207

Title of the thesis: Is less really more? - The influence of logo descriptiveness in logo redesign on brand attitudes and brand recognition across cultures.

Primary supervisor and responsible researcher: Dr. A.P.J.V. van Hooft

Date on which checklist was completed: 10/4/2020

Answer the questions by clicking the box for the answer that applies to your proposed research

When you click on a box, a check will appear automatically

Medical-ethical study

Is a healthcare facility involved in the research project in one of the following ways?

This is the case if one of the situations a / b / c below apply to the proposed research: one or more employees of a healthcare facility are involved in the study as a client or a provider/performer.

the study is done within the walls of the healthcare facility and, due to the nature of the study, it should normally not be done outside of the healthcare facility.

patients/clients of the healthcare facility participate in the study (in the framework of treatment).

No, not in the manner of a / b / c → continue with checklist

Yes, in the manner of a / b / c (circle the applicable answer)

→ Has a Medical-Ethical Review Committee (METC) already tested and approved the proposed research? [WMO = Social Support Act]

Yes, and the research was approved by the METC → continue with checklist and submit your supervisor's statement to this effect together with your research proposal

No → This request must be submitted to a recognised Medical-Ethical Review Committee (METC), for example the CMO Region Arnhem Nijmegen ([cmo-regio-arnhem-nijmegen](#)) → end checklist → see [ccmo.nl](#)

Does this project involve a medical-scientific study that could involve possible health risks to the persons participating?

No → continue with checklist

Yes → This request must be submitted to a recognised Medical-Ethical Review Committee(METC), for example the CMO Region Arnhem Nijmegen (cmo-regio-arnhem-nijmegen) → end checklist → see ccmo.nl

Standard research methods

The Ethics Assessment Committee Humanities (ETC-GW) has determined and described a number of [standard research methods](#) (after opening link, see the right-hand column for a PDF) → Does the method / approach of the proposed research project fall under one of the ETC's standard research methods?

Yes →1Standard evaluation and attitude research.....
(fill in name and number of standard) → continue with checklist

No → review by ETC-GW is necessary, end checklist → [go to review procedure](#)

Participants

Will the proposed research involve a population that is in good health?

Yes → continue with checklist

No → review by ETC-GW is necessary, end checklist → [go to review procedure](#)

Will the proposed research involve minors (younger than 18) or people regarded as legally incompetent?

No → continue with checklist

Yes → review by ETC-GW is necessary, end checklist → [go to review procedure](#)

Nature of the research

Will a research method be used that can create a situation in which the researcher may inadvertently find out about the health of a participant, and about which that participant should then be informed in a manner not described in the applicable standard methods (as defined by ETC-GW)?

No → continue with checklist

Yes → review by ETC-GW is necessary, end checklist → [go to review procedure](#)

Will participants have to undertake or undergo actions or behaviours that could cause discomfort in a manner that is not described in the applicable standard methods?

No → continue with checklist

Yes → review by ETC-GW is necessary, end checklist → [go to review procedure](#)

Are the estimated risks of the research for participants greater than described in the applicable standard methods?

No → continue with checklist

- Yes → review by ETC-GW is necessary, end checklist → [go to review procedure](#)

Will participants be offered compensation other than the customary compensation described in the applicable standard methods?

- No → continue with checklist
- Yes → review by ETC-GW is necessary, end checklist → [go to review procedure](#)

If any misleading information is given to respondents, does the related procedure about deception (e.g. providing debriefing) comply with the requirements outlined in the ETC-GW protocol? (see Protocol, under [deception](#))

- Yes → continue with checklist
- No → review by ETC-GW is necessary, end checklist → [go to review procedure](#)

Will the standard regulations on anonymity and privacy as outlined in the ETC-GW protocol be observed in the proposed research? (see Protocol, under [anonymity](#))

- Yes → continue with checklist
- No → review by ETC-GW is necessary, end checklist → [go to review procedure](#)

Doing the research

Will the research be done at an external organisation (e.g. school, hospital)?

- No → continue with checklist
- Yes → Do you have written permission from this organisation?
- Yes → continue with checklist (add document with permission)
- No → review by ETC-GW is necessary, end checklist → [go to review procedure](#)

Have the following four requirements been complied with for the proposed research?:

Will there be a contact person for participants who have questions about the research, and will participants be informed of this?

- Yes → continue with checklist
- No → review by ETC-GW is necessary, end checklist → [go to review procedure](#)

Will participants be clearly informed about to whom they can voice complaints about their participation and how these complaints will be dealt with?

- Yes → continue with checklist
- No → review by ETC-GW is necessary, end checklist → [go to review procedure](#)

Will participants be completely free to participate in the study and to stop participating at any moment they want to and for whatever reason?

- Yes → continue with checklist
- No → review by ETC-GW is necessary, end checklist → [go to review procedure](#)

Prior to the study, will participants and/or their representatives be informed about the goal, nature, length, risks of and objections to the study? (see [explanation about information and permission](#) and [sample documents](#))

- Yes → continue with checklist
- No → review by ETC-GW is necessary, end checklist → [go to review procedure](#)

If you have answered 'yes' to all four requirements, continue the checklist (submit: the document of consent you will be using, e.g. as part of your proposed survey or questionnaire)

- No → review by ETC-GW is necessary, end checklist → [go to review procedure](#)

This checklist is about research involving the participation of people as sources of data. Nowadays, many studies are conducted using internet data. If the proposed research uses data that is available publicly on the internet, then in principle you do not need permission from the people who posted this data online to use it. But you must still consider whether or not making such data available or public through your research could disproportionately harm the interests of the people that posted the data online in the first place. Is this the case in the proposed research?

- Yes → review by ETC-GW is necessary, end checklist → [go to review procedure](#)

No → checklist completed

When you have finished filling in the checklist, save it under a new name and submit it to your supervisor together with your research proposal.

E. Declaration on plagiarism and fraud