

THE IMPACT OF FACIAL EXPRESSIONS IN CONSUMER PURCHASE DECISION

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- Spine

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Abstract

Facial expressions of emotion cannot be controlled voluntarily, they simply reflect our emotional state. When an individual is lying or hiding something, there might be incongruencies between his speech and facial expressions. Today a few studies have explored if an incongruity in a product advertisement has an impact in the consumer purchase decision. We hypothesize that an incongruity might have a negative impact in the consumer purchase decision, focusing in incongruences between spoked language and facial expressions of emotion. To that purpose, we recorded an advertisement video containing a congruent or incongruent expression. Moreover, to test the impact of the advertiser, three spokespersons were selected: a celebrity, an expert and a general consumer. The advertising shows a spokesperson tasting an orange juice and expressing that it is delicious with a congruent happiness facial expression, or with an incongruent disgust facial expression. Both facial emotions were validated using FaceReader software. In order to test the main hypothesis, we recruited 81 individuals. When visualizing the videos, participants were monitored with eye-tracking technology and after visualization were invited to fill a survey. This strategy allowed to investigate the levels of trust, perceived quality, attention and word-of-mouth intentions. After statistical analysis, a structural equation model using PLS-SEM showed that the congruency has a pivotal effect in purchase decision, as well as in the previously mentioned variables. Therefore, we conclude that an incongruity between spoked and non-spoked language have a negative impact in the consumer decision and opinion about the product.

Keywords: Facial Expressions; Emotions; Incongruity; Consumer Neuroscience; Purchase Intention; Eye-Tracking; Consumer Decisions; PLS-SEM.

JEL CLASSIFICATION:

JEL: M30 – General

JEL: M31 – Marketing

JEL: M37 – Advertising

Resumo

As expressões faciais não podem ser controladas voluntariamente, simplesmente refletem o nosso estado emocional. Quando alguém mente ou esconde alguma informação, podem haver incongruências entre o que ele diz e o que a sua expressão facial mostra. Atualmente não é claro se uma incongruência num anúncio de um produto tem impacto na decisão de compra do consumidor. Foi lançada a hipótese de que a incongruência tem um impacto negativo na decisão de compra do consumidor, sendo que o foco foram as incongruências entre linguagem verbal e as expressões faciais. Para tal, foram gravados anúncios publicitários contendo uma expressão congruente e incongruente. Além disso, para testar o impacto do anúncio, três tipos de atores foram selecionados: uma celebridade, um expert e um consumidor. O anúncio mostra o ator a provar um sumo de laranja, dizendo que é delicioso com uma expressão congruente de felicidade, ou com uma expressão incongruente de nojo. Ambas as expressões foram validadas recorrendo a um software de análise – FaceReader. Para testar as hipóteses, 81 participantes foram recrutados. Durante a visualização dos vídeos, os mesmos foram monitorizados com um equipamento de eye-tracking, respondendo a um questionário no fim. Através da análise estatística em PLS-SEM, verificamos que a incongruência é um fator determinante para a intenção de compra. Assim, concluímos que uma incongruência entre a linguagem verbal e a expressão facial durante um anúncio publicitário tem um impacto negativo na decisão de compra do consumidor, assim como na sua opinião sobre o produto.

Palavras chave: Expressões Faciais; Emoções; Incongruência; Neurociência do Consumidor; Intenção de Compra; Eye-Tracking; Decisões do Consumidor; PLS-SEM.

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1. Introduction

Shannon and Weaver (1949) created one of the simplest communication models, where a sender intends to transmit a message to a certain destination. During its transmission, the message needs to be encoded and decoded, and this process might be perturbed by some noise. Van Buren (2002) argued that a message delivered by the sender might be distorted due to an incongruity between verbal and non-verbal language, represented by noise in the referred model. This distortion might end up sending the wrong information to the receiver, affecting all the communication process.

An advertising is nothing more than a communication process, where a brand tries to send a certain message to the consumers in order to persuade them to buy. Most of the advertisements are made with spokespersons, famous or not, saying good things about the product or brand that they are trying to sell. However, like everyone else, they have emotions and express them during the ads. Face muscles reflect our emotions through facial expressions (Magalhães, 2011), and when the emotion felt by the spokesperson is not aligned with what he is saying, there might be an incongruity between his speech and his facial expressions, which might have influence in consumers behaviour.

Facial expressions have been studied since the XIX century, when Darwin (1872) found that information regarding humans' behavioural intentions and emotional tendencies was expressed in our face muscles. Darwin, more than one hundred years ago also wrote that the facial expressions of emotion are universal across different cultures. More recently, Ekman (2003) corroborated Darwin hypothesis, identifying at least seven universal emotional states.

It is widely accepted by the researcher community that emotional reactions, like facial expressions, are very important to our welfare given the impact they present in our judgements and decisions (Ekman 2003; Matsumoto, 2009). Facial expressions are a way to express our moods and to reinforce the message sent to the audience. Consequently, the study of facial expression of emotion became relevant and necessary in different fields, being marketing one of them. The study of emotions in marketing has been developed and it was found that facial expressions elicit emotions in the observers. Hatfield et al. (1992, 1994) and Neumann (2000) named it emotional contagion, which

was the starting point for the appearance of emotional marketing. Briefly, marketers try to elicit emotions in their potential consumers, however disregarding the consumers perception of the emotions.

Therefore, the present study aims to provide further insights from a different point of view. Instead of simply focusing in transmitting a given emotion to the consumer, to persuade him to buy, we studied how the emotions advertised by the spokesperson are perceived by the consumer and their impact in the purchase decision. In this study we are not considering the emotion that consumer is feeling, rather the congruence of the emotion that the spokesperson transmits through his facial expression.

1.1. Research problem

In the latest decades, emotions became an important research topic in all behavioural sciences, where marketing and advertising are not an exception. However, the literature about emotions in advertising is not consensual and do not cover all the topics that might be affected by emotions. Researchers have mainly focused on specific areas of emotions in marketing such as its measurement (Bellman, 2007), causes and consequences (Penz and Hogg, 2011), functions (Eyal and Fishbach, 2007) and engagement (Pieters et al., 2012).

In the 90's, a hierarchical model to measure the effect of emotions in viewing time was created (Batra, 1991). Later, it was shown how advertisers can leverage emotions and attention to engage consumers watching the commercials (Pieters, 2012). More recent studies focused in the effectiveness of emotional marketing, measuring its impact in attitude towards the brand, and attitude towards the advertising (Lewinski et al., 2014), and how marketers can embed emotions in the advertisement to influence decision making (Achar et al., 2016).

However, there is a lack of studies about the emotions from the consumer point of view, i.e. what are the kinds of emotions that the consumers perceive from the advertisement. Marketers are focused in creating appealing advertisements, to engage or to influence the consumers, but they fail in knowing about the emotional information the consumers

actually perceive. Sometimes consumers may perceive the wrong information by recognizing incongruent facial expressions made by the advertising spokesperson.

Currently, less is known about the role of facial expressions in advertising. The majority of the researchers focused in monitoring the consumers facial expressions, while watching the advertisement, to measure their emotions. For example, the impact of the emotions of sadness and happiness in a charity advertisement was evaluated to understand people's engagement to donate (Verrochi, 2009). More recently, a computer software that recognizes participants expressions – FaceReader – was used to evaluate the consumers happiness facial expression while visualizing an advertisement (Lewinski, 2014).

Given the lack of studies about facial emotion expressions in an advertisement context, which is uncommonly studied from the consumers point of view, along with a gap of research if consumers perceive the information differently depending on the spokesperson facial emotions, we find extremely relevant to study the impact of these emotions in the consumer purchase decision.

Therefore, the main objective of this study is to prove that the congruence between the actor speech and its emotions influence the consumer decision to buy the product.

1.2. Relevance of the topic

Our brain perceives the world through different doors, in particular our five senses - sight, sound, touch, smell and taste. Although smell has an important role in marketing (Lindstorm, 2005), sight is the strongest sense used for marketers, responsible for around 80% of all advertising (Jayakirishnan, 2013).

Our proposed study aims to evaluate how the consumers sense of sight perceive the spokesperson facial expressions from the advertising. Mehrabian (1971) states that communication is composed by three main elements: words, tone of voice and body language (facial expressions included). The same study shows that words only account for 7% of our communication, while the tone of voice accounts for 38%. Body language and facial expressions are the core elements of a communication, accounting for 55%

Given this 7-38-55 rule, two human senses are applicable in a communication process: sight and hearing. During an advertisement the actor will use, at least, those two senses, and a major challenge is to make the message congruent. Once proved that consumers are more sensible to non-verbal communication, the spokesperson facial expressions are extremely important, and therefore their impact in consumers decision to buy the product will be the main focus of this project.

Fisk (2005, p.26) states that “customers are better-informed than ever before, their expectations are high, and loyalty is rare. Standing out from the competition requires a more creative approach”. The business environment is changing really fast and business men, like marketers, need to find new ways to better allocate their marketing budget and spend it smartly. The ultimate goal of advertising and marketing strategies is to deliver a persuasive communication, convincing another party to reformulate their opinion or attitude (Meyers-Levy & Malaviya, 1999). Persuasive agents need to know more about sincere acts, and advertising and marketing companies are looking for new tools that could help them predict customers behaviour. Facial expressions of emotion are one of those new tools that can boost marketers to better understand their customers and mostly, to better communicate to them. If marketers knew how to better communicate with their customers, without misunderstandings, their campaigns could be more effective, and the brand image remains untouchable.

Therefore, the success of this project may help companies to better execute their advertising campaigns, paying more attention to the expressions made by the spokesperson.

1.3. Dissertation framework

The current study is divided into six chapters:

1. Introduction to the main topic of the research. The importance of emotions is highlighted, in particular regarding attention to facial expression in marketing and advertising. Theoretical and practical contributions are also discussed.

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2. Literature Review – It is first necessary to review the motivation theories to understand how people perceive facial expressions, how consumers decide what products to buy, as well as how important it is to understand consumers, what affects consumers, and drives consumers decisions.

3. Theoretical Framework - This chapter serves as a bridge between the literature and the methodology, outlining the hypothesis and the subsequent conceptual model.

4. Methodology – Being this an experimental research study, the maximum feasibility of the results needs to be ensured. This chapter describes the methodological approach, detailing its specifications and the advantages of the used software. Moreover, it describes the best way to measure emotions.

This chapter also defines how the stimuli were prepared, from the choice of the product to be advertised, to the recording of the advertise. Everything is explained in-depth, including how FaceReader software was used to validate the information.

5. Results – In this chapter results from the structural model using PLS-SEM are presented, accounting for the validity of the hypothesis and the model in general.

6. Discussion, conclusion and limitations – In this chapter, we discuss our results on the basis of the existing literature. Finally, a conclusion is presented, accounting for the main findings of this dissertation and its limitations, suggestions and implications.

2. Literature review

2.1. Marketing communication

2.1.1. Communication process

Shannon and Weaver (1949) originally created one of the simplest communication models, where they comprise several vital elements in a communication process: information source, message, transmitter, channel, receiver, and destination. Figure 1 illustrates the original model where, in a brief way, the information source creates the messages and delivers to the destination.

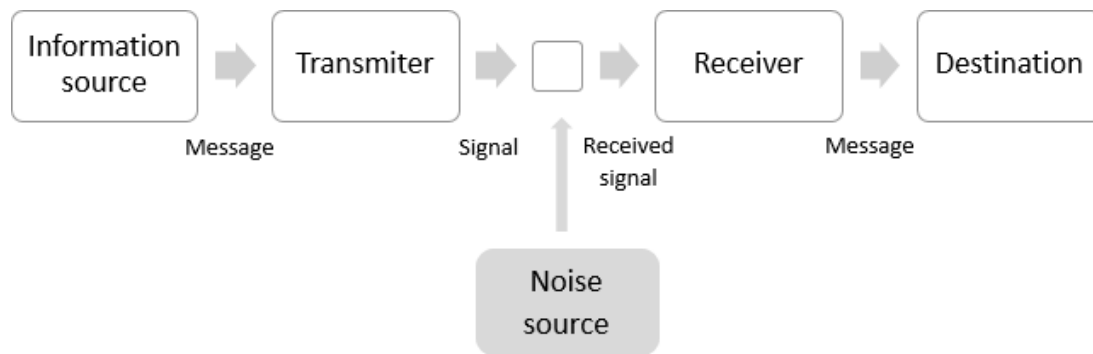


Figure 1 – Communication model. (adapted from Shannon and Weaver, 1949)

According to the same authors, communication begins when the information source sends the message to the transmitter, that will convert it into signals. Then, the receiver, or decoder, will do the reverse process, converting the signals again into messages, in order for the destination to understand it. The message may contain not only verbal information, but also written and visual one, such as letters or body language (Shannon and Weaver, 1949). As they wrote, “*in oral speech, the information source is the brain, the transmitter is the voice mechanism producing the varying sound pressure (the signal) which is transmitted through the air (the channel)*” (1949, p.98). The channel can be seen as the system itself to convey the selected information to the message receiver, which might be either a human being or an item that gets the messages (Shannon and Weaver, 1949).

Kotler and Keller (2012) adapted Shannon and Weaver model and applied it to marketing, nominating it as the “macro-model of communication process”. In figure 2, we show the nine key factors contributing to the communication effectiveness. Two of them represent

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the major parties of the communication: the sender and the receiver. Message and media correspond to the major tools while encoding, decoding, response and feedback are related to the communication functions. Lastly, noise may occur and interfere during the communication. The messages are transferred from encoder to decoder through channels. During all this process, the messages may be affected, which disturb the communication flow and the receiver may not obtain the correct message (Kotler and Keller, 2012). Applying this hypothesis to our current study, the messages in the advertisements may be affected during all this process, due to difficulties in their decoding. This can happen upon an incongruent facial expression in the advertise, which confuses the receiver and can lead to problems in decoding the appropriate message. Marketing communications strategies need to be precise and accurate when planning the ads, in order to transmit the right message to consumers.

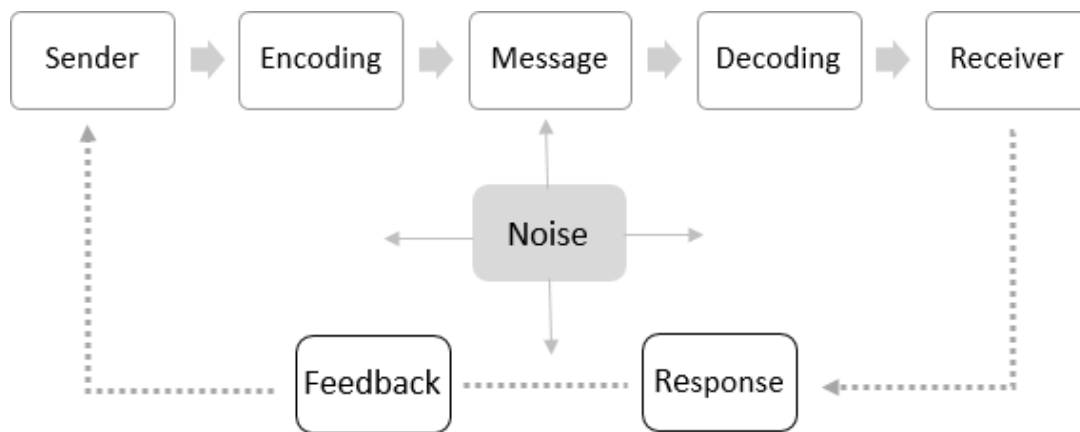


Figure 2 – Communication model (adapted from Kotler and Keller, 2012).

The noise source presented in figure 2 might be represented by an incongruity between the speech and the body language. As stated by Townsend (1996), a congruent message is delivered when the content and the process agree, while an incongruent message is delivered when the speaker speech does not match with his behaviour. A study on married couples found that emotional mismatches, in which sender and receiver disagreed, were associated with senders' verbal/non-verbal incongruence (Van Buren, 2002). That is to say that the message delivered by the sender might be distorted due to an incongruity (represented by noise in Shannon's and Kotler's models) in the speech, sending the wrong message to the receiver. All communication process might be affected by an incongruity, and the present study intends to better understand the effects that such

contradictory action might have in an advertise, when consumers perceived the wrong message due to an incongruency.

2.1.2. Marketing communications

According to Kotler and Keller (2012), marketing communications are the vehicles that companies use to inform, persuade and remind consumers about a given product or brand. They aim to find strategies that help companies to speak to their customers and establish an image in the consumers mind, through advertising. One of the most important information feature for the communication strategy to be effective, is the target audience. Senders must know exactly which audience they want to reach with their message, since different targets have better channels of communication.

In the last years a new and challenging communication strategy has increased with the wide appearance of social networks. Integrated marketing communications (IMC) is a way of combining the traditional media with the newer online media, that presents a wide range of offers. The objective of this strategy is to coordinate all forms of communication in order to transmit a clear, compelling and consistent message about a brand and its products (Kotler and Keller, 2012). Given the increase of communication channels and taking into consideration the objective of transmitting a clear and consistent message, the analysis of the facial expressions in the advertising may help brands to improve their communication, by increasing the congruence between all communication channels.

2.1.3. Communication objectives

For a communication plan to be successful, Fill (2009) hypothesizes that three main objectives should be reached. First, the communication plan should generate awareness, usually done through advertising, to reach a wider audience. Second, it should trigger consideration in the target consumer to buy, i.e., the communication plan should give an image of trustworthiness in order to convince consumers to consider purchasing it. Lastly, the main goal of the communication plan is to get the potential customer to purchase the product or service.

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Even though Kotler and Keller agree with some of the communications objectives proposed by Fill (2009), in particular that it should create awareness and purchase action, they also support other additional points, originally stated by Rossiter and Percy (1997). They agree that the communication plan should establish a category need for a product or service, to remove the perceived discrepancy between a current motivational state and a desired motivational state. Another goal of communication is to create brand attitude, helping consumers evaluate the brand's perceived ability to meet a currently relevant need (Rossiter and Percy, 1997; Kotler and Keller, 2012).

Lavidge and Steiner (1961) had created a model to explain these objectives (represented in figure 3 and 4). Their model suggests that consumers follow six steps (awareness, knowledge, liking, preference, conviction, purchase) when they decide to purchase. These steps are related to the three different stages of human responses: cognitive, affective and conative (Lavidge & Steiner, 1961).

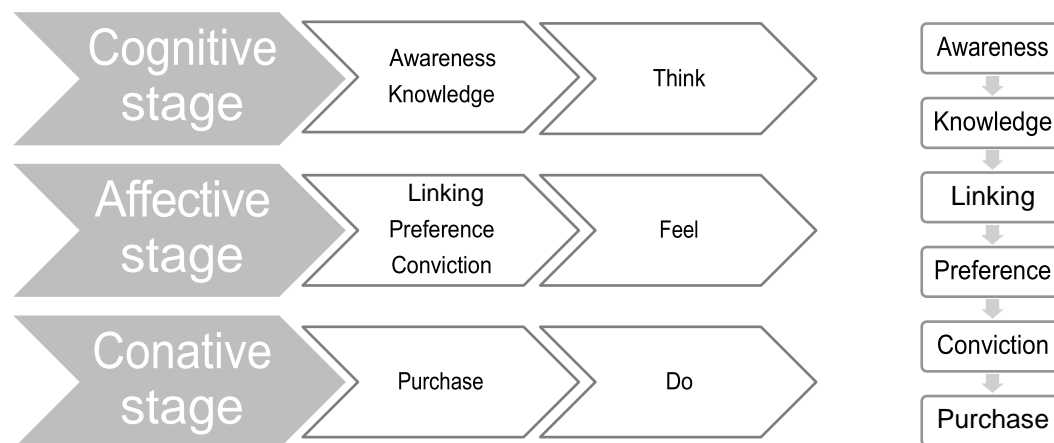


Figure 3 and 4– Lavidge and Steiner hierarchy of effects proposed model

The cognitive stage is important to create awareness and attention, being more rational (think), so that the consumer becomes aware and gathers product knowledge. Awareness is the most crucial step and the starting point for purchase. Brands need to make sure that the potential customers are aware of their products and services. Also, companies need to guarantee that enough knowledge is available about their products. It is in this step that a given product may be distinguished among several different brands (Kotler and Keller, 2012).

The affective stage is more emotional (feel) where consumers form an attitude, interest and conviction towards the product. In this stage, facial expressions could have a strong influence, either positive or negative in the consumers opinion. From the consumers point of view, their attitude towards the product may be different if they find an incongruence in the advertise, caused by a facial expression which is not congruent with the actor speech. Also, in the affective stage, consumer builds a liking to the product, considering it for its emotional benefits. Although consumers may prefer a brand, they may also like other brands and change their preference when facing an incongruency, due to a possible lack of confidence in the ad. That is why the differentiation or the unique selling points need to be highlighted in the communication, to make sure that the consumer prefers the brand. After the liking and preference, the last step in the affective stage is the conviction to buy (Kotler and Keller, 2012).

Lastly, the conative stage represents a common goal for these models, leading to an effective purchase (do). This is the most crucial stage of the consumer buying cycle. Companies need to make sure that purchase experience is easy and perhaps enjoyable for the consumer (Kotler and Keller, 2012). To purchase something, it is necessary to go through all these steps. The current problem is that it is becoming complicated for companies to communicate with their potential customers because technology evolution makes people avoid more and more the ads and consequently they are not aware and do not have the necessary knowledge about a specific product or brand, being this a massive challenge for marketers.

2.2. The advertising problem

The advertise main role is to inform the potential target about a new/existing product or company, and to persuade consumers to buy a specific good or service (Ackerberg, 2001). Based on the content, advertisements can be divided into two categories: i) thinking ads, where the focus is given in the attributes and factual information of the products; ii) feeling ads, where concentration is placed on the emotions (Puto and Wells, 1984).

A study conducted by Media Dynamic Inc (2014) concluded that in every single day individuals are exposed to 9.8 hours of media and advertisements. However, only 362 ads could have been seen or heard, and from those only 153 attracted the audience attention

for a few seconds or more. Those numbers are elucidative about the massive challenge for companies to raise awareness and attention to their products, in a world where consumers are bombarded with huge amounts of advertising messages. Nowadays, consumers have the possibility to avoid commercials on TV, or skip the internet ads, and consequently brands lose the opportunity to communicate, breaking the message between the sender and the receiver. According to StopAd, one of the most downloaded software to avoid internet ads, 70% of their users block an average of 200 ads a day, only in Windows devices. (StopAd, 2018).

To contradict this problem, evoking positive emotional states in the advertising is considered a potent strategy to engage consumers and to attract their attention in the ad. Studies found that emotions of joy and surprise do influence the viewer retention, which influences their attention in the advertising (Pieters et al., 2012; Skov et al., 2017). Moreover, Batra (1991) demonstrated that viewers who were in a positive affective state more strongly evoked the affection when facing the brand name, and that emotions serve as moderators to attitude towards the brand.

Altogether, evoking emotions, through feeling ads, may be seen as a solution to invert the decrease of attention in advertisements, and can be used as a tool do better communicate to target consumers, as we will further develop below.

2.3. Advertising appeals: rational or emotional?

Advertising appeal is the element that have strongest influence in all advertising effectiveness, having impact on attention, awareness, attitude and behavior (Rizwan et al., 2013). Marketers are able use two different appeals to deliver their messages in advertising campaigns: emotional and rational. Emotional appeals are more relevant for hedonic products, while rational appeals suit better for utilitarian products (Armstrong, 2010).

Emotional appeals in advertising can be seen from the sender (marketers) or the receiver (consumers) perspectives. Keshari and Jain (2014) argued that from the receiver point of view, consumers have different responses to advertising, according to two different models: Cognitive Information Model and Pure Affect Model. The first model is based

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on cognitive response and assumes that consumers preferences will not change because of the advertisement, as their decisions are only rational. On the other way, Pure Affect Model focuses on affective responses, where consumers form their preferences based on elements such as liking, feelings, and emotions induced by the advertisement, underlying the importance of emotions in marketing.

From the sender point of view, emotional appeals can be defined as an attempt to stir up either negative or positive emotions on consumers that can motivate purchase, while rational appeals emphasize features of a product or service as well as the benefits or reasons for using a particular brand (Keshari and Jain, 2014). An advertising can be considered as rational if it contains information about the price of the product, quality, function, material, purchasing time and place to buy. If the advertising contains none of the above information, it is regarded as emotional appeal advertising (Keshari and Jain, 2014).

When it comes to advertisement effectiveness, first it should attract consumers attention. Attention develops brand awareness, which can lead to brand recall and recognition. Advertisement awareness forms attitude toward the advertisement, which influences attitude toward the brand and purchase intentions (Chang and Chang, 2014). Moreover, figure 4 shows that emotional and rational appeals can have different influences on the attention to the advertisement, awareness, attitude toward the ad, and purchase intentions. The following model corresponds to the three stages of individual response to advertising (cognitive, affective and conative), directly related to the three functions of advertising (inform, create feelings, and provoke an action).

In the research community there is no consensus regarding the question which type of advertising appeal attracts more the consumers attention. According to Panda et al. (2013), emotional appeals are used more often than the rational ones to attract consumers' attention. However, Sadeghi et al. (2015) argues that rational appeals are more relevant, providing clearer product-related information. Thus, we may conclude that both types of appeals attract attention in different ways.

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In figure 4, we illustrate that both emotional and rational appeals have impact on consumers attention to the advertising. When it comes to the attitude toward the advertisement, it has a direct influence on consumers attitude toward the brand (Sadeghi et al., 2015), and a positive attitude toward the advertisement positively influence the attitude toward the brand, which in turn positively directly influences the purchase intention (Panda et al., 2013).

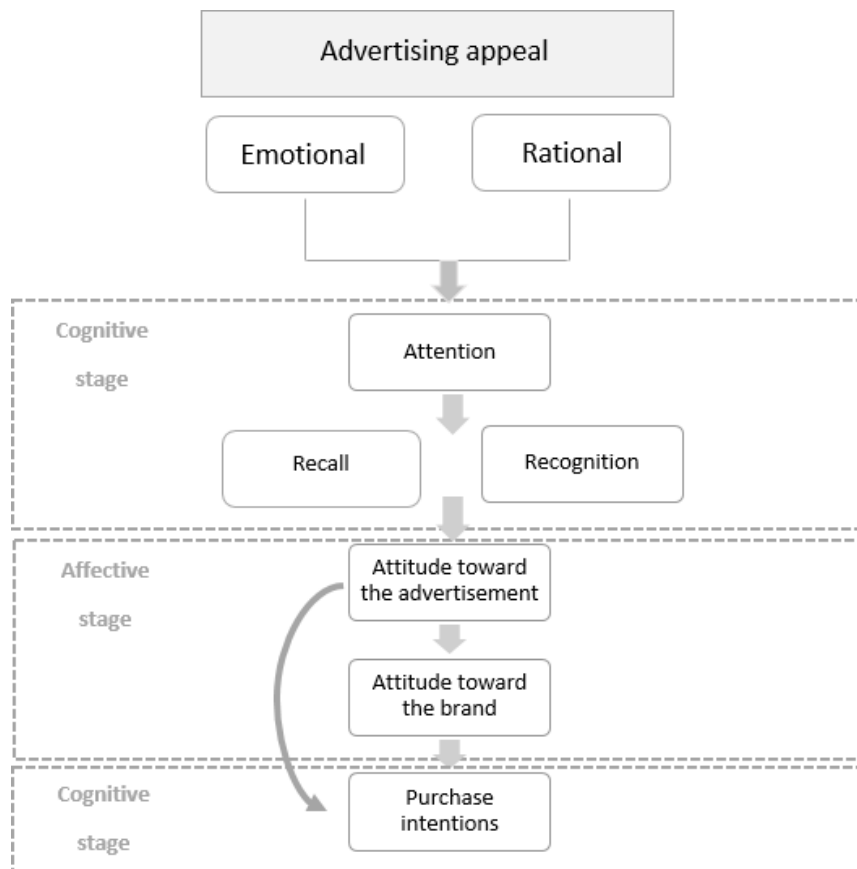


Figure 5 – Advertising appeal impacts on response stages (Author's own illustration).

Panda et al. (2013) also emphasizes several limitations of emotional appeal advertising, and in the context of this study, it is important to mention that sometimes a dissonance between affective and cognitive messages can happen when the affective messages are created out of the context. That is to say that incongruencies between verbal and non-verbal information can happen when using emotional appeal in advertising, and consequently the message can be misunderstood. If an actor in an advertising does not feel what he is saying about the product he is trying to sell, consumers may perceive an incongruity between what he is saying and what his facial expressions are showing, and it may influence their decision to buy the product.

2.4. Emotions

Emotions can be understood as states or processes. When understood as a state (like being angry or afraid), an emotion is a type of mental state that interacts with other mental states and causes certain behaviours. Understood as a process, it can be divided into two parts. The early part of the emotion process is the interval between the perception of the stimulus and the triggering of the body response. The later part of the emotion process is a body response, like changes in heart rate, skin conductance, and facial expression (Prendinger, 2008).

The classical view of emotion supports the idea that somewhere inside our conscience there is an engine to areas of our brain. Each emotion has a circuit — one for anger, sadness, fear, disgust and so on. The emotion occurs when something outside our control triggers one of those circuits and elicits a very specific facial expression or body response (Barrett, 2017). This happens because the autonomic nervous system, which regulates most of the normal body functions, is divided into two systems: the sympathetic nervous system, that arouse emotions, elevating blood sugar and heart rate when facing a stimulus. In the other hand, the parasympathetic nervous system will slow down emotional activity and makes the body return to its normal state (Tellis and Ambler, 2017).

There are a large number of classification systems for emotions, but the majority of them include arousal, pleasure and dominance, also knew as PAD model (Meharbian and Russell, 1974). Arousal is associated with the intensity of the emotion, the stronger are the arousal properties, more likely the emotional state will continue. Pleasure is one of the most seeking dimensions for marketers. They want their products to be paired with pleasant emotions (love) instead of unpleasant ones (fear). Finally, dominance is associated with lack of control in other environments and with feelings of power (Tellis and Ambler, 2017).

According to Magalhães, an emotion is an intense, automatic and quick answer, conscious or unconscious, to a stimulus, and can also be seen as a neuronal impulse that forces our body to perform an action (Magalhães, 2011). Each emotion has a unique set of characteristics that distinguish themselves for another, including unique physiological signatures, distinctive changes in mental activities and attention, and reliable nonverbal

signals (Matsumoto, 2009). Moreover, according to the same author, these characteristics are universal to all people of all cultures, which means that facial expressions of emotion are universally expressed in the same way by everyone, no matter the race, culture or age. Such finding is supported by Ekman, who claims that the way facial muscles work or the way facial expressions appear do not change throughout cultures (Ekman and Friesen, 2003). Seven emotions are considered universal: anger, disgust, fear, sadness, agony, surprise and enjoyable emotions (Ekman and Friesen, 2003; Russel, 2017). Also, psychologists found evidence, proved by Ekman, that people who are born congenitally blind manifest similar expressions to those of sighted individuals (Thompson, 1941; Eibl-Eibesfeldt, 1973; Ekman and Friesen, 2003). Matsumoto (2009) compared the expressions of both congenitally blind and non-congenitally blind athletes taking part in the 2003 Paralympic Games with those produced by sighted athletes in the 2004 Olympic Games. The conclusions were similar to Ekman's results, as he found no differences between the congenitally blind, non-congenitally blind and sighted athletes, either at the level of individual facial actions or of facial emotion configurations. Those studies prove that emotions are unconscious states that everyone experience, even if we have never seen that emotion before.

Many times, emotions, moods or feelings are incorrectly considered the same thing. However, different types of affect and emotions vary from moods mainly in terms of intensity, duration and behavioral impact. Generally, emotions are much more intense and longer than moods. The first ones could last few seconds, while moods can sustain for hours or even days (Scherer, 2005). Moreover, emotions have intentional content, which is to say that they are related to something, while moods are typically about nothing in concrete.

People often identify that others are, for instance, nervous, because emotions produce changes in parts of our brain, as well as changes in our autonomic nervous system, which regulate our heart rate, breathing, sweating, and many other body changes, including face muscles (Ekman 2003).

As a conclusion to the definition of emotion, Ekman states that: "*Emotions can happen unexpected way, because muscles change our visible appearance of the face. Emotions*

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send out signals, changes in our expressions, face, voice, and bodily posture – we do not choose these changes, they simply happen.” (Ekman, 2003, 471).

Universal emotions:

Ekman says that every enjoyable emotion is a different form of happiness, and they do not involve different facial expressions, as they all involve smiling expression. Based on that, we can generalize that all enjoyable emotions can be classified happiness, which is one of the most desired emotions because it is a positive one. Although happiness is characterized by unambiguous smiles,

Happiness

sometimes it can be confusing because people tend to fake smiles. A true smile was labelled a Duchenne smile, characterized by the higher cheeks, changed cheek contour and slightly lowered eyebrows. When a smile is genuine, it pushes up the cheeks and should produce crow's feet wrinkles in the eyes. Ekman observe the eyebrows and the muscles in the face to understand whether a smile is true or fake.

Surprise

Is one of the quickest emotions and is considered to be neutral, i.e., it is not necessarily pleasant or unpleasant. A genuine expression of surprise should be unexpected and quick, as it lasts only until the triggering event has been evaluated.

Fear

It can be followed by any of the other emotions. Fear may also be experienced combined with another emotion, and it elicits anxious, - nervous, tense, worried, apprehensive, terrified, horrified, and mortified feelings.

Disgust

It is a negative emotion and can be compared with the feeling of aversion and may vary in intensity. Disgust is often accompanied by anger and it can blend with anger, surprise, fear, sadness and happiness.

Anger

It is an unpleasant emotion and varies in intensity. It can be a normal irritation but can also get to rage or fury. Angry can blend with any of the other emotions.

Sadness

Sadness is a passive emotion and is one of the longer-lasting ones. People suffer in sadness, one of the most general negative emotions. Sadness can blend with any other emotions, but most often with anger or fear.

Agony

Attempts to deal actively with the source of losing something and often appears when a situation is uncontrollable. After a period of protesting agony, there is usually a period or resigned sadness.

Table 1 – Seven universal emotions. Adapted from Ekman (2003).

2.5. Facial expressions of emotion

Faces are believed to be the primary nonverbal channel for the communication of emotion (Ekman, 2003). Ekman divides facial expressions of emotion into two categories, facial micro expressions and facial macro expressions. Micro expressions are very brief facial expressions - usually between $\frac{1}{2}$ to $\frac{1}{25}$ of a second – and it is difficult to identify the information they contain due its quick appearance. The neuro-cultural theory of emotion, advocated by Ekman, defines micro expressions as discrete, innate and culturally independent (Ekman, 1972; Ekman and Cordano, 2011). When it comes to the macro expressions, they last long enough on the face to be easily seen and interpreted – usually they last between half a second to few seconds (Ekman 2009).

Darwin (1872) was the first researcher to talk about facial expressions. In his first study he suggested that facial actions cannot be controlled voluntarily and may be produced involuntarily even if the individual tries to control their expressions. The brainstem (an area of our brain) controls involuntary and unconscious expressions, while the motor cortex (another brain region) is involved in consciously controlled and intentional facial expressions (Schmidt and Cohn, 2001). This is the reason why a fake smile does not appear naturally, whereas a genuine smile does. People can easily recognize a fake smile because it does not trigger the same emotional reaction compared to an authentic smile, making them different from a true smile, also known as Duchenne smile. (Schmidt and Cohn, 2001).

More recently, Ekman supported Darwin's theory and further suggested that facial expressions appear when an individual try to hide its current emotions. He also found that this can be detected in real time and could help us to learn and read more assertively what others are feeling (Ekman et al., 1983). Porter & Brinke (2008) demonstrated that facial expressions occurred when individuals attempted to be deceitful about their emotional expressions.

Magalhães says that the face is the reflex of our brain (Magalhães 2011). It uses the face to show its emotions, through facial expressions. He also states that the human brain is divided into two hemispheres that cross-process the information (the left hemisphere controls the right side of our body and the right hemisphere have control of the left side of our body). The right-side hemisphere is where we process our emotional states and it's considered dominant in every form of expression and emotional perception, since the left-side hemisphere is more for cognitive processes. Still according to the author, the human brain has four lobes, each one with a specific function: the frontal lobe is related with movement and reasoning; the parietal lobe is about touch, heat, cold and pressure; the occipital lobe interprets what is captured by the eyes; and the temporal lobe regulates some emotions, like happiness (Magalhães, 2011).

According to some researchers, facial expressions influence emotions and emotions influence facial expressions, in a two-way link. Emotions may cause facial expressions ("I feel happy, so I smile") but the opposite is also true, facial expressions also cause emotions ("I smile, and it makes me happy") (Gross and Thompson, 2007).

2.6. The role of emotions in decision-making process

The importance of emotions in consumer decision process has been recently highlighted. Until now, emotions were only seen as a negative influencer of the rational decision-making process (Gutnik 2006; Matsumoto, 2009).

Daniel Kahneman, winner of the 2002 Nobel Memorial Prize in Economic Sciences, evoke a theory made originally by the psychologists Keith Stanovich and Richard West (Stanovich & West, 2000), that explain how consumers make decisions, based in a two systems model. Kahneman explains that the two systems differ in the way of thinking: *System 1* is based on automatic, fast and often unconscious emotional way of thinking, while *System 2* is an effortful, logical and slow controlled way, that demands concentration (Figure 5). The most remarkable and useful discovery, in this context, is the powerful effect of moods, feelings and emotions, that have strong influence in *System 1* (Kahneman, 2011).

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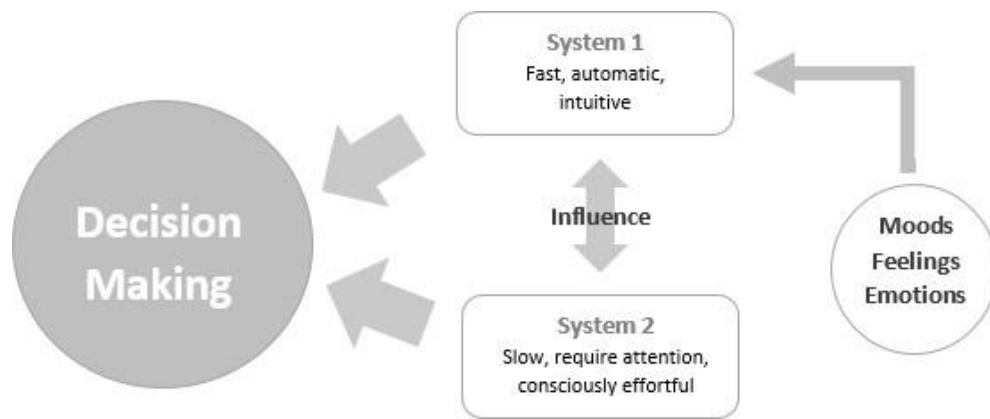


Figure 6 – decision making process (Author's own illustration).

Another theory about decision making process, made by Paul Slovic, states that people make judgements and decisions by consulting their emotions (Slovic et al., 2005), which is supported by Damásio hypothesis that decision making is a process that is influenced by expression of emotions and feelings (Bechara and Damásio, 2000). He also found evidence for a direct link between reasoning and decisions and shows that emotions moderate all decisions. He also proved that emotions can be responsible for driving decisions on their own, thus, influence decision making (Damásio, 2004). Damásio have studied the case of Phineas Gage, who had an accident and got his brain trespassed by an iron bar. Surprisingly he did not die, however he starts having troubles making decisions because of a frontal cortex damage. A neuropsychological analysis indicated a low emotional reactivity in Gage after the accident, which suggest the deficit in emotional behavior as cause of the difficulty in making rational decisions, giving emphasis to the importance of emotions in decision making (Damásio, 2011).

Gutnik also theorizes about emotions in decision making and claims that emotions influence our attitudes and judgments, which consequently influence the decisions we make, either positively or negatively, depending on the valence of the emotion (Gutnik, 2006). Emotions may also be predictors of satisfaction, word of mouth intentions, and service-quality perceptions, which may influence other's consumption (White 2010).

Considering facial expressions as an unconscious reflex of an affective state provoked by emotions (Ekman and Friesen, 1983), and analyzing the findings mentioned in the previous paragraphs, it can be said that decision-making process is, most of the times,

irrational as it is influenced by moods, feelings, emotions, and intuition, and this hypothesis is the starting point for our research work about the impact of facial expression of emotions on consumer purchase decision, through advertising.

2.7. The role of emotions in advertising

In the latest decades, considerable progress has been made in the study of emotions. Some influent researchers, like the neuroscientist António Damasio, tested the general conception that emotions are not useless, as they play an essential role for rational thinking and behaviour (Bechara and Damásio, 2000). Building on these insights, researchers in various disciplines, including marketing and advertising, have emphasized the great importance of emotions for human behaviour and decision making and stressed that emotions dominate cognition and need to be considered as one of the most crucial factor in the advertising process (Hall, 2002; Du Plessis, 2005).

2.7.1. Importance of the first impressions

According to Alexandre Todorov, the first impression that we have of someone will determine what we think of that person, and we take less than 100 milliseconds to make that first impression after exposure to a face (Willis and Todorov, 2006). After the first impression, we all make some kind of judgment and, in fact, for all of them (attractiveness, likeability, trustworthiness, etc), increased exposure time do not change this judgment. When exposure time increased from 100 to 500 ms, people judgments became even more negative, response times for judgments decreased, and confidence in their own judgments increased (Willis and Todorov, 2006). He et al. (2016) found that facial expressions during food advertising were stronger to disliked foods than to liked foods and were already detected at the first visual contact with it, supporting Todorov's theory.

The hypothesis that additional exposure time to a face may simply boost confidence in people's judgments created by their first impression, and do not change their perception, are elucidative about the power of the facial expressions in advertising. Most of the times, advertisements are made with actors, which have emotions and express them, like a normal human being. People could see an advertise more than one hundred times, but if

they didn't like it in the first time, or if we capture the wrong information from the spokesperson facial expressions, their perception of the product or the ad will remain unchanged, only gets more strong (Willis and Todorov, 2006).

2.7.2. Types of spokesperson

The usage of spokesperson in advertising has been analysed in marketing researches and suggests that the mostly used types of spokesperson are celebrities (Hsu, 2009; Rossiter and Smidts, 2012), experts (Freiden, 1982; Thompson, 1992) and typical consumers (Freiden, 1982). The contribution for substantiation of the usage of latter two types of spokesperson was laid by different researchers (Kamins and Gupta, 1994; Kang and Goodman, 2010). However, there is no consensus about what type of spokesperson in advertising is more effective (Hsu, 2009; Rossiter & Smidts, 2012). Endorsing celebrities was found to increase trustworthiness, and to be more attractive than non-celebrity (Atkin and Block, 1983; Lin, 2008). Expert endorsement is usually used to transmit an image of confidence, authority and trust, due to the actor's professional life (Lin, 2008), but studies found that celebrities turn to be more significant than an expert endorsement (Lin, 2011).

Despite its large benefits for the brands, the usage of a spokesperson also has some negative points, and that image of confidence and trust may be affected. Spokespersons' personality is similar to the major human personality traits: agreeableness, conscientiousness, openness, extroversion and emotional stability. The actors' personality traits are defined as behavioral, temperamental, emotional and mental, characterizing a unique individual (Folse et al., 2013). Spokesperson and brand congruence are also important and the actor personality should be consistent with the important elements of the brand. Misra and Beatty (1990) showed that endorser-brand congruence enhances the effectiveness of advertising.

Studies have shown that if both the spokesperson and brand personality are perceived as sincere this may have a positive effect on brand attitude (Lee & Kang, 2013). However, actors are human beings and express their emotions like all of us, as it is one of the personality traits mentioned above. Facial expressions cannot be voluntarily controlled (Darwin, 1872; Ekman, 2003), and if the actor does not really feel what he is saying, his face will show the truth, which can lead to misunderstandings and could end up giving a

negative instead of a positive image. That is why it is crucial to study the impact that incongruencies might have, in order for marketers to be more aware and better execute their campaigns.

2.7.3. Incidental and integral emotions and stimulus

In order to better study the effect of emotions, it is important to distinguish between two types of emotional influences that can be used in advertisements: incidental emotion states and integral emotion responses (Bodenhausen, 1993). Integral emotions occur when marketers embed emotions in their marketing campaigns to create a stimuli and consequently influence consumers decision (Pham, 2007), by elicit emotions through prior events or consumer's personality (Achar et al., 2016). Martin Lindstrom in one of his publications (Lindstrom, 2013) gave some practical examples of how marketers can use integral emotions to persuade consumers to buy a product, and that the well know aroma of a new car is one of those examples. Automobile companies use a perfume with that "new car" smell to persuade consumers to buy new cars. Mitsubishi, in a marketing campaign, provided samples of that aroma in two big newspapers, and as a result the model Lancer Evo X sold out in two weeks, while companies revenues increased 16%.

On the other hand, incidental emotions are those that come from sources that have nothing to deal with the object of decision, including emotions not caused by the target object (Pham, 2007). Incidental emotions can occur via processes such as enhancing message compatibility or changing temporal focus and mindsets (Achar et al., 2016), but they may also arise from past events, from chronic dispositional tendencies, or a combination of both (Lerner et al., 2007).

When it comes to the stimulus, marketers can use emotional appeals in advertisements subconsciously or through subliminal stimuli, as they are not the same thing. The last ones refer to emotions we cannot consciously perceive, like frames of less than 10 milliseconds in a movie. In contrast, subconscious processing occurs when consumers are seeing or hearing the advertise, but no active attention is paid to it. However, subliminal advertisements tend to be weak and generally ineffective (Moore 1982 Trappey, 1996; Tellis and Ambler, 2007), while subconscious are more effective, since the less aware the consumers are of emotional elements in the advertise, the better they are likely to work,

because the viewer has less opportunity to rationally evaluate, contradict, and weaken their potency of the stimuli (Bornstein 1989). Facial expressions can be considered either a subliminal or subconscious approach, since sometimes they are exposed for much less than a second, but they are also subconscious because consumers will unconsciously perceive them (Ekman, 2003).

2.7.4. Practical application of emotions in advertising

About the advertisement itself, Lindstrom et al. (2015) claims that smiles of happiness are the dominant facial expression on a human model in visual ads. He found that true smiling faces in ads elicit more customer joy as well as a greater product liking, proving that smiles, indeed, do work. It works simply because smiles cause emotional contagion. As explained before, people feel better when they see other people smile. In healthy human beings, mirror neurons do their job whenever people are exposed to any recognizable facial expression, making them experience emotions identical to ones being displayed. So, when looking at a smiling face, no matter how subtle it is, people will automatically be happier (Gross and Thompson, 2007).

However, marketers have to keep in mind that mirror neurons are always at work, not only with happiness but also with sadness. It might in some cases seem relevant, and a study about the impact of facial expressions on charity advertisements end up proving that facial expressions do play an important role in advertisement effectiveness. The authors found out that people catch the emotions displayed on other's face and they are particularly sympathetic and likely to donate when they see sad expressions versus happy or neutral expressions (Small et al., 2009; Russel et al., 2017).

A study about emotional responses to Christmas advertisings (imarklab, 2015) found that the preferred ads were the ones who caused the strongest emotional reactions and therefore, the least neutrality. Toys R Us advertising were the most liked, where 17% of participants got surprised, 9% happy, and 27% did not felt any emotion. However, all ads under analysis arouse about 40% of anger in participants. This can be explained because people are naturally averse to advertisement. A survey conducted in China and reported by eMarketer (2015) showed that 87% of people have a primarily negative attitude toward

video ads. That study also show that people naturally tend to get angry when video ads are imposed, regardless of the media.

3. Theoretical framework

Mehrabian and Russel's (1974) Stimuli – Organism - Response (S-O-R) framework will be used to introduce the study about the impact of facial expressions in consumer decision process, and then each point will be developed in-depth. S-O-R is a realistic model that simply pictures the stimulation and human behaviour and linked it to a certain response by an organismic component. The structures and processes that constitute this organismic component can be either biological, for instance the nervous system, or psychological, such as emotion or thinking. Stimulus can be material (luminosity), organic (stomach pains) or social (facial expression) (Buxbaum, 2016).

This framework has been used in marketing context, and studies found that store environmental cues act as stimuli (stimulus) that affect the consumers' emotional state (organism), which consequently affects their behaviour (response) (Vieira, 2013). In marketing activities, stimulus could include all things that generally are seen to be external, such as products name, brands, logos, ads, packages, prices, store environments, etc. Responses to those stimuli may include nonverbal responses (such as galvanic skin responses, eye fixations, smiles, etc.), verbal responses (like word-of-mouth communication), and behavioural responses (for instance purchase intention, awareness, return intention, etc.). The challenge for marketers is to understand what is the mechanism and the mediator between those stimuli and their consequent responses (Jacoby, 2002). This study will use an advertising stimulus to test if it has impact on purchase intention, through an organismic response, as will be developed next.

3.1. S-O-R application to the study

The current study has a video advertising as a stimuli, which is a powerful communication tool and allows companies to transmit their messages through verbal and visual communication (Mehrabian and Wetter, 1987; Waters and Jones, 2011). Studies show that people avoid up to 80% of television commercials and skip the internet video advertisements, when they are able to do so (Grover and Fine, 2006). Evoking positive

emotional responses is seen as an opportunity to engage consumers in video advertisements, that is, to attract their attention and retain them from start to finish (Pieters et al., 2012). Ray and Batra (1983) originally postulate that emotions increase attention and memory, making the advertising more effective. Many other authors have been studying the relation between emotions and attention in the ads, supporting Ray's idea (Biel, 1990; Doyle 1994; Du Plessis, 2005).

Cognitive perceptions such as attention, are considered as one possible organismic response, the second component of S-O-R framework (Lam, 2001). Those responses also act through consumers emotional states, along three dimensions know as PAD – pleasure, arousal and dominance. Pleasure relates to how good a consumer feels about the video advertising, and its positive affective reactions come from three different areas of the brain - nucleus accumbens shell, ventral pallidum and brainstem parabrachial nucleus (Berridge, 2003). When it comes to arousal, it is the extent to which a consumer feels excited or stimulated by the ad. It is a complex and unconscious response of the human body triggered by some parts of the brain, when facing a stimulus (Damásio, 1994; Bechara and Damásio, 2005). Then finally, dominance is an affective state that relates to control, or lack of it (Mehrabian and Russel, 1974).

Given the purpose of this study about the impact of facial expressions in consumer purchase decision, it's crucial to consider perceived quality as possible response, since it can be seen as a driver to consumer choice. Perceived quality refers to brands ability to operate as a quality guarantee and it can be defined as consumers personal judgement of brands overall excellence (Aaker, 1996). In the advertising context, perceived quality can be classified as intrinsic or extrinsic. The intrinsic cues are factualness, concreteness and attribute prominence, while the extrinsic ones are linked to the perception of quality, making them more concrete. The presence of celebrity endorser has been studied and proved to affect the perceived quality (Kirmani & Zeithaml, 1993), which is enough to consider the type of spokesperson as a moderator in the model.

Along with the type of spokesperson, the congruency or incongruency between what the spokesperson is saying and his facial expression will also be analysed as a moderator to study if it has impact in the relationship between stimulus and response. A congruent

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message is when the content and the process agree, while an incongruent message is when what the speaker says and what he does don't agree (Townsend, 1996).

Researchers have investigated brain activity when an incongruency occurs between non-verbal information of facial expression and the verbal information, expressed by spoken language. The results showed that the anterior cingulate gyrus and lateral prefrontal cortex, both areas from our brain, are activated when there is a gap between those information's, which led to the conclusion that people perceive those incongruencies between verbal and non-verbal information, like facial expressions (Zaki et al., 2010).

Another study, also aiming to identify brain activity during incongruencies, did an experience where individuals were receiving stimulus consisting of positive or negative verbal information, while they were facing a smiling expression. The conclusions were similar to the previous study, suggesting that activity in the parietal lobe increases when observing a smiling face with negative verbal information, that is, when the verbal information and facial expression are incongruent (Morioka et al., 2015).

In order to complete the S-O-R model, responses need to be evaluated. The study mentioned before had the objective of measuring the impact of incongruent message in the amount of donations, investigating changes in the perceived trustworthiness of a person showing a facial expression when incongruent verbal information was provided. There was a significant increase in the donation amount for the congruent condition, in which a positive sentence was displayed with a smiling facial expression, when compared to the donation amount for the incongruent condition in which a negative sentence was displayed with a smiling facial expression (Morioka et al., 2016).

Purchase intention can be compared to intention to donate in the previous study, and is defined as the degree of future behavioural orientation reflected by a consumer in purchasing a product presented in an advertisement (Lin, 2011).

It's important to notice that in this model we can only observe two of its three components. The stimuli and the response are observable, as they are actions. However, the organism we can't observe, it's is an unconsciously process that happen in our brain, and it should work as a mediator between the stimuli and the response, and the question is what is that mediator between S and R, and what happens between S and R.

3.2. Hypothesis development

Chebat (2002) argued that consumers tend to focus their attention on pleasant elements of the service environment rather than less pleasant ones, suggesting a positive relation between the level of visual attention and the level of pleasure. However, Chebat's study have only analysed attention to a service environment and not attention to faces. Therefore, the present study intends to hypothesize that the ads with more visual attention to spokesperson facial expressions will be considered as more pleasant.

H1: There is a positive relationship between consumers visual attention and their level of pleasure.

Affective experiences involve at least two properties: i) valence, that range between pleasant and unpleasant and ii) arousal, ranging from quiet to active (Wundt, 1912; 1924).

Lang (1994) argued that arousal works as a V-shaped function of valence, ie, both positive (pleasure) and negative (unpleasure) valence have high levels of arousal. However, when valence is neutral, the arousal levels tend to decrease. In other words, but according to Lang (1994), researchers found that arousal positively affects pleasure. (Massara et al., 2010; Miniero et al., 2014).

Regarding the particular case of the impact congruency has on pleasure, Mohanty and Ratneshwar (2016) argue that pleasure varies as an inverted U-shaped function of incongruencies: both congruent and incongruent situations have low pleasure, while a medium congruent one elicits higher pleasure. When not considering congruency as a moderator (consumers see both congruent and incongruent situations) the total congruity level would be medium, and consequently pleasure is expected to be high.

Thus, since pleasure is expected to be high when watching the advertisements, participants levels of arousal is also expected to be higher, according to Lang (1994), suggesting a positive relationship between those two variables.

H2: There is a positive relation between arousal and pleasure, when watching the advertisements.

Pleasure, arousal, and dominance have been shown to be a part of a three-dimensional concept, known as moods (Mehrabian and Russell, 1978; Havlena and Holbrook, 1986; Russell et al., 1981; Mehraei and Akcay, 2017). The following hypothesis was formulated with basis on Isen et al. (1978, 1982) results, which suggests that a better mood will have higher appraisal of services quality cues, such as perceived quality. Considering pleasure as a mood (Mehrabian and Russell, 1978), and once proved that moods affect perceived quality (Isen et al., 1978; 1982; Chebat et al., 1995), there might be a positive relationship between consumers pleasure and products perceived quality in advertising. Hence:

H3: There is a positive relationship between consumer pleasure and his perceived quality of the advertised product.

Morgan and Hunt (1994) define trust as customers confidence in a service and company's reliability and integrity. Researchers have emphasized the importance of service quality to build costumers trust (Grönroos 1983; Zeithaml et al., 1988; Rust and Oliver 1994; Zeithaml et al., 1996; Dickson et al., 2002).

In the context of a service, quality can be divided in two different concepts: technical quality and functional quality. Technical service quality is defined by Sharma and Patterson (1999) as the quality of the service output, while functional quality is about employee politeness (Hartline and Ferrell 1996). In other words, the difference between technical and functional quality is that the first one refers to what service is provided whereas the other relates to how the service is provided (Lien and Kao, 2008).

Researches on both technical and functional service quality elements have emphasised a positive effect on customer evaluations of an organization (Bloemer et al., 1999; Zeithaml et al., 1996). Also, there are evidence suggesting a positive relationship between service quality and trust, with studies proving that an organization that consistently meets or exceeds the technical expectations of customers will cultivate more trusting relationships with its customers (Chiou and Droge 2006; Sharma and Patterson 1999; Eisingerich and Bell, 2008).

Actual quality and perceived quality are two different concepts. Holbrook and Corfman (1985) distinguish between mechanistic (actual) and humanistic (perceived) quality, where the first one involves an objective aspect or feature, while the second one is more subjective and therefore depends on people judgements. Therefore:

H4: There is a positive relationship between product perceived quality and consumers trust in the product.

According to Aaker (1996) the quality of a product is predicted by its perceived quality. Researchers found an indirect influence of perceived product quality on purchase intentions, through a mediating variable related to satisfaction (Cronin and Taylor, 1992; Madu et al, 1995; Sweeney et al., 1999; Llusar et al., 2001).

Based on the referred authors, Saleem et al. (2015) have suggest that there is no need for a mediator in the relationship between perceived quality and intention to purchase. They empirically tested that assumption, with an experiment on technological product, ending up proving their point.

The previously mention study was done with an existing product that participants had the opportunity to explore and form an opinion about its quality. In an advertising, consumers cannot try the product, which makes the perceived quality even more important. Therefore, it will be hypothesized that there is also a direct relationship between perceived product quality and consumers purchase intention when it comes to an advertising product, that consumers had no clue about.

H5: There is a positive relationship between perceived product quality and consumers intention to purchase.

Researchers have been demonstrated a positive relationship between service quality and WOM, argued that positive perception of service quality leads to positive WOM

(Alexandris et al., 2002; Hutchinson et al., 2009; Liu & Lee, 2016; Nikookar et al., 2015, Rajaguru, 2016). Based on the previous mentioned distinction between actual quality and perceived quality, it will be hypothesized that there is also a relationship between perceived product quality and WOM intentions in a product advertising, where an increase in the perceived quality will lead to more positive WOM intentions. Hence:

H6: There is a positive relationship between perceived product quality and consumers WOM intentions.

As hypothesized before, trust may be influenced by perceived quality of the product. However, trust can also be a direct influencer to consumer intention to purchase. Lau and Lee (1999) agree that if consumers believe in a product, it means that they are also likely to form a positive purchase intent related to that product. Researches have shown a direct relationship between trust and willingness to buy online products (Olson and Olson, 2000; Bhattacharjee, 2002; Gefen, 2002; Kim et al., 2007).

When shopping online, consumers will always experience some level of risk. In those risky situations trust comes into play as a critical aspect. Gambetta (1988) argued that trust is particularly relevant in conditions of ignorance or uncertainty. The experimental part of this study will be done with a brand created exclusively for this purpose, meaning that participants won't have any idea about the brand, putting them in an ignorance situation. Proved that trust is an important variable for online purchase, it will be hypothesized that trust the product is also important in an advertising, influencing the intention to purchase.

H7: There is a positive relationship between trust in the advertised product and the intentions to buy the product.

Although many studies have been conducted on this issue of trust, there are still gaps that need to be filled in the literature, mainly when it comes to the relation between trust and word-of-mouth intentions.

Westbrook (1987) defines word-of-mouth communications as informal communications between consumers. Although WOM could be positive or negative, positive WOM help

promote products or services without incurring additional promotion or advertisement costs. Previous researches show that trust positively influences word-of-mouth communication (Chu & Kim, 2011; Gremler et al., 2001; Matos & Rossi, 2008; Sichtmann, 2007). These studies have considered trust in the product and trust in the organization, but none had studied trust in the video advertising. Given the context of this study and the lack in the literature, it will be hypothesized that not only trust in the product and the organization has impact on WOM but it is also true when it comes to trust the video advertising. Therefore:

H8: There is a positive relationship between trust in the advertising and WOM intentions.

Celebrities are either well-known individuals who are directly associated with the product category, or just famous people who are recognized for achievements in the areas unrelated to the product class (Freiden, 1984). The use of celebrity endorsers has become an important communication tool to engage consumers and retain their attention, once proved that messages delivered by well-known personalities achieve a high degree of attention in consumers (Ohanian, 1991; Felix, 2014).

Clark and Horstman (2003) argued that when consumers observe a message communicated by a celebrity, they have much higher intention to purchase the product than when the same message is communicated by a non-celebrity. Still comparing the effect of celebrity and non-celebrity endorsement, Atkin and Block (1983) found celebrities to be more trustworthy, competent and slightly more attractive than non-celebrity. Damásio et al. (1985) demonstrated that in healthy individuals, viewing of famous faces evokes a larger galvanic skin responses than viewing of non-famous faces. This suggests that celebrities may increase consumers arousal and pleasure, which is related to experienced familiarity.

Based on the aforementioned literature and given the results from Silvera and Austad (2004), who found that using celebrities to endorse a product enhances positive advertising ratings and product evaluations, it is expected that stronger effects in the results of the above hypothesis (H1-H8) will occur in the celebrity endorsement experiment, rather than the expert or consumer ones.

H9: Celebrity endorsement experiments will have stronger effects on the above hypothesis (H1-H8) than non-celebrity ones.

Celebrity endorsement isn't the only element that may influence visual attention in the advertising. Studies suggests that situations with high incongruency result in more attention, which could be explained by the need of processing the information in an incongruent situation, that takes more time that in a congruent one, making individuals pay increased attention to that information (Mandler, 1982; Moore et al., 2016).

Also, previous research has shown that purchase intention is positively related to the perceived expertise and the sincerity of the spokesperson (Ohanian, 1991; Folse et al., 2012). According to Lutz (1985) advertising credibility can be defined as the degree to which the consumer perceives the ad to be truthful and believable. It refers to the consumers perceptions of how trustfully and believable the ad appears (MacKenzie & Lutz, 1989). Morioka et al. (2015) argued that incongruencies in facial expressions negatively affect trust and credibility. Proved that purchase intention are influenced by trust and credibility, and that incongruent facial expressions negatively impact credibility, it is expected that there is a direct relationship between the incongruency and purchase intention.

Incongruity belongs to a group, along with novelty and surprise, which cause a transitory rise in individuals' arousal (Berlyne and McDonnell, 1965; Mohanty, 2016). Research suggests that the level of incongruity between an object and its associated schema can influence a person's evaluations of the object (Cohen and Basu 1987; Sujan 1985, Schreuder, 2016). Mandler (1982) argued that this occurs because people like things that conform to their expectations and they don't expect incongruencies. Congruent objects are not particularly engaging, and thus the affective response to congruity is often positive, while incongruent objects, on the other hand, stimulate arousal (Mandler 1982; Michon et al. 2005; Schreuder, 2016).

Pleasure can be defined as how good a consumer feels about something (Van der Voort et al., 2014), and may also be influenced by an incongruent action. Processing pleasure is a derivation of the initial concept, regarding the positive affect experienced by an

individual from the comprehension of an initially incomprehensible message, like an incongruent message (Mohanty and Ratneshwar 2016). Those authors found that a moderate level of incongruity in a visual metaphor advertising produces maximal processing pleasure. They also found that incongruity have a significant “inverted-U” effect in processing pleasure. That is to say that low congruity result in low processing pleasure, as well as high incongruity. However, when there was a moderate congruity, the processing pleasure increased.

According to the previous authors, it is expected that stronger effects in the results of the above hypothesis (H1-H8) will occur for the congruent situation rather than the incongruent one.

H10: Congruent situations will have stronger effects on the above hypothesis (H1-H8) than incongruent ones.

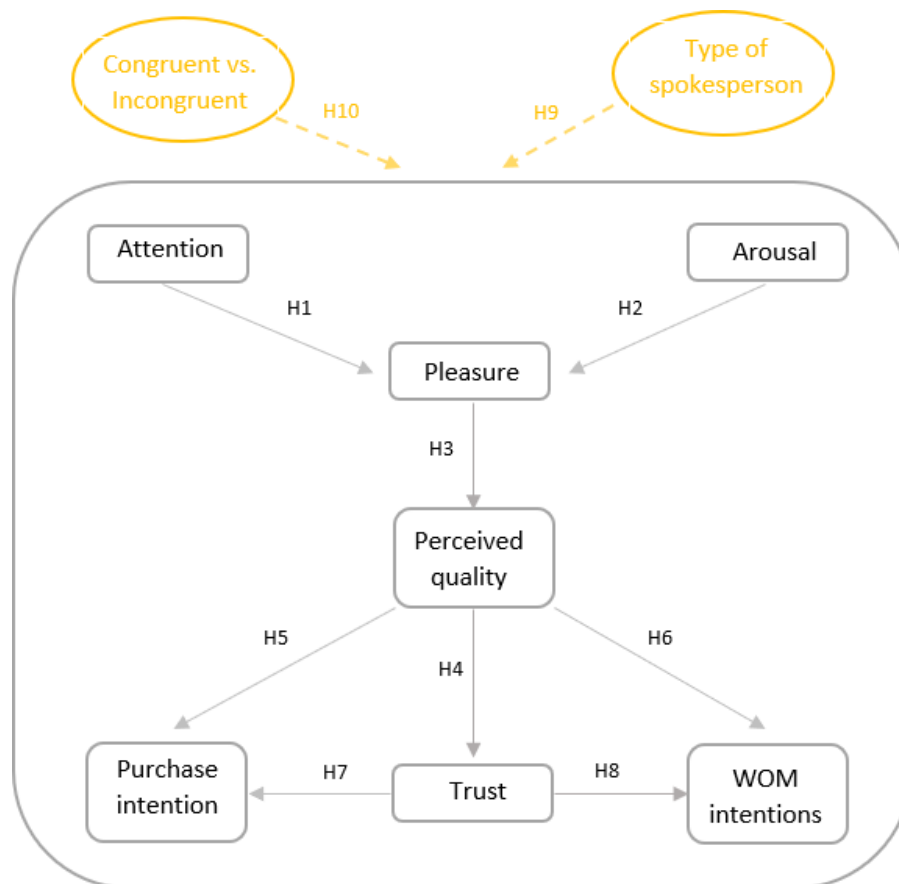


Figure 7 – conceptual framework (Author's own elaboration).

4. Methodology

Wiles and Cornwell (1990) reviewed and have enumerated the tools that are used to measure emotions in advertising research. Years later, Poels and Dewitte (2006) provided an updated measure dividing it in two groups: self-reports, which includes verbal, visual and moment to moment measures, and autonomic, including heart rate, skin conductance, attention and facial expressions. According to the authors, these tools can be used to capture the effectiveness of the advertising when it comes to attitude towards the ad, attitude towards the brand and purchase intention, being the last one the focus of this study.

Although self-reports are used more frequently due to its lower costs, Poels and Dewitte (2006) argued that autonomic measures have higher predictive power than self-reports. The hypotheses formulated in this study call for a mixture of both methods and for that reason it was used self-reports and autonomic measures.

Self-report techniques can be either visual or verbal. Verbal self-reporting methods can be applied in experimental designs, in questionnaires, or in interviews in a way that uses open ended questions or emotions that are measured through scales (Sørensen, 2008), while visual self-reports ask to rate emotional states by choosing a cartoon character representing emotion felt. The present study uses both verbal and visual self-reporting method, more precisely a survey and AdSAM® (Lang, 1980; Lang et al., 1985; Lang and Bradley, 1994). This self-report technique is based on picture oriented scale where participants chose the picture that best represents their emotional state, regarding pleasure, arousal and dominance. Although the original SAM scale (Lang, 1985) measure those three emotional states, it was proved that dominance has low impact in consumer behaviour and for that reason the present study used a two-dimensional approach, based on arousal and pleasure (Donovan and Rossiter, 1982; Mehrabian, 1995; Russell and Pratt, 1980; Vieira, 2013; Guerreiro et al., 2015). When it comes to the questionnaire, Pieters and Warlop (1999) research ended up proving that chosen brands receive significantly more attention than non-chosen brands. Formulated hypothesis requires the usage of eye tracking technology, to study the relationship between eye movements and attention to the advertising, and its consequent relationship with pleasure and arousal. Eye-tracking focuses on eye movements, rather than emotions providing information

about which part of the advertising had more visual attention. It's possible to measure how many times and for how long participants gave attention to the display, contributing for the evaluation of advertising effectiveness (Pieters et al., 2002).

4.1 Stimuli

For the purpose of the current experiment, six videos were made to simulate real TV advertisings for a natural orange juice. A fake brand named Laranjal was also created for this purpose.

According to the goals of this study, three different actors were carefully chosen to interpret two different situations in a 2 (congruent, incongruent) X 3 (general consumer, expert and a celebrity) factorial design experiment. The expert chosen was a nutritionist because the product is a natural juice, while the celebrity was Madjer, the captain of the Portuguese National Team of beach soccer and elected for 5 times the best player in the world. The actors were carefully chosen, all males around 40 years old, to minimize the differences between ads.

The difference between the congruent and the incongruent situation was the actors' facial expressions of emotion. As stated by Townsend (1996) an incongruent message is when there is a disagreement between what the speaker says and what he does. In this case, happiness expression was used to represent the congruent situation. During the congruent videos, the actors where asked to drink the juice and say that it is delicious with an expression of happiness. When it comes to the incongruent situation, the actors also say that the juice is delicious, but with a negative facial expression, that could be disgust, anger or sadness. The congruence/incongruence is defined by the valence of the facial expression made by the actor when trying the product.

The valence of the facial expression and the actual facial expression were analysed and identified with FaceReader. FaceReader is a commercially available software program that can automatically analyse six of the seven universal facial expressions: happiness, sadness, anger, surprise, scared, disgust, and neutral, which refers to the absence of any significant emotion. The analysis of FaceReader is based on the definitions and

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recognition principles of FACS (Ekman, 1978) and was validated with an accuracy rate of 90% by Loijens and Krips (2013).

The advertisings were conducted in a way to make consumers think that it is a real one. There are some little details that were considered, like the intensity of the expressions made in the incongruent situation. Even if the actor doesn't appreciate the product, he is still trying to sell it, that's why along with a genuine negative expression it also appears a little of happiness, but not so intense.

Both congruent and incongruent videos only differ in the facial expression of the actor when tasting the juice. The celebrity, Madjer, when asked to record the congruent video showed a happiness expression of 97.3% while drinking the juice, and 73.8% when saying that it is delicious. On the other hand, when asked to perform an incongruent video, disgust was the most prevalent expression when drinking (41.4%) and anger was the most intense expression when speaking about the product (49.9%).

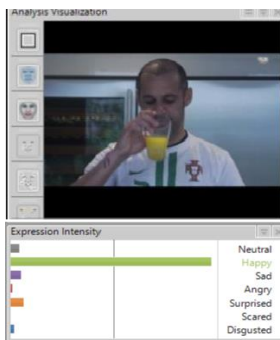


Figure 8 a) – facial expression of happiness when drinking (FaceReader software)

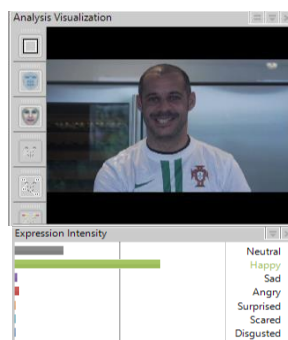


Figure 8 b) – facial expression of happiness when speaking (FaceReader software)

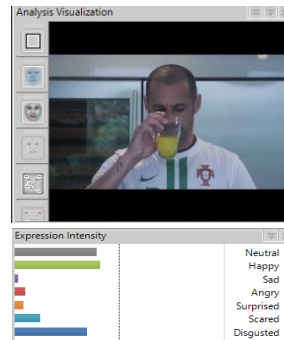


Figure 8 c) – facial expression of disgust when drinking (FaceReader software)

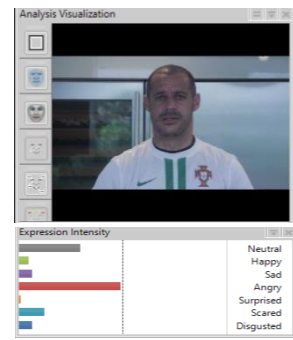


Figure 8 d) – facial expression of angry when speaking (FaceReader software)

The expert during the congruent video showed a neutral facial expression of 76% with 29.1 % of happiness while tasting the product and 53% of happiness when he is talking about it. When it comes to the incongruent situation, his facial muscles were more neutral (54%). However, the highest expression was disgust with 16%, when he takes the glass to his mouth, followed by 22% of sadness, along with 10% of angry when forced to say positive things about the juice.

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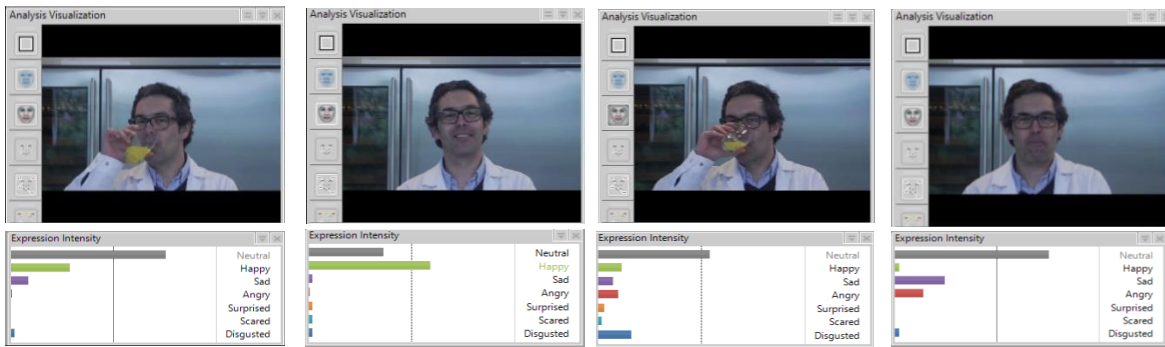


Figure 9 a) – facial expression of happiness when drinking (FaceReader software)

Figure 9 b) – facial expression of happiness when speaking (FaceReader software)

Figure 9 c) – facial expression of disgust when drinking (FaceReader software)

Figure 9 d) – facial expression of angry and sadness when speaking (FaceReader software)

General consumer performed a congruent situation with a facial expression of happiness around 82% when drinking and 57% when saying that it is delicious. By contrast, the incongruent video registered 41.9% and 31.9% of angry when drinking and saying that it is delicious, respectively, motivated by the fact that he was being forced to say positive things about a juice that in fact, he doesn't like. That is what makes the videos incongruent, the fact that the actors were saying good things about a product that they don't like, and naturally their preference appear in their facial expressions.

Table 2 and 3 show the results from FaceReader for all the emotional responses for both tasting the juice and saying it is delicious.

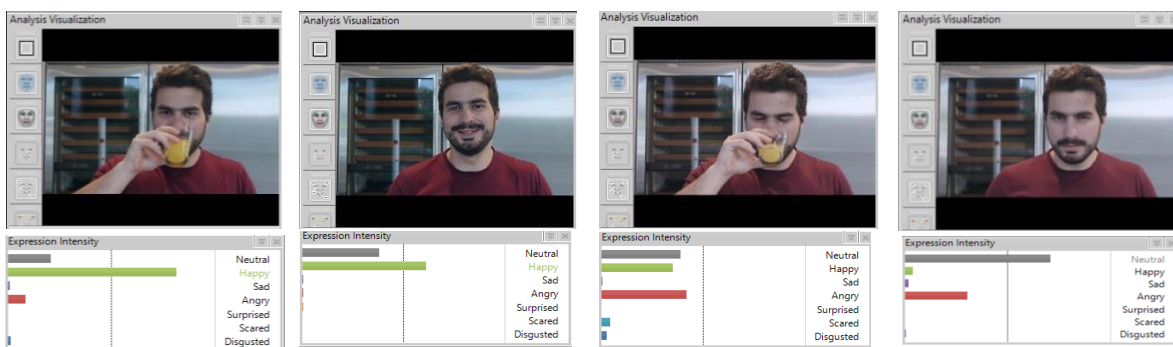


Figure 10 a) – facial expression of happiness when drinking (FaceReader software)

Figure 10 b) – facial expression of happiness when speaking (FaceReader software)

Figure 10 c) – facial expression of angry when drinking (FaceReader software)

Figure 10 d) – facial expression of angry and sadness when speaking (FaceReader software)

	Facial expression while tasting the juice					
	Celebrity		Expert		Consumer	
	Congruent	Incongruent	Congruent	Incongruent	Congruent	Incongruent
Neutral	4.5%	36.1%	75.8%	54.2%	20.0%	39.2%
Happiness	97.3%	45.6%	29.1%	11.8%	82.0%	35.0%
Sadness	5.4%	0.5%	8.5%	7.5%	1.3%	0.5%
Anger	1.1%	0.0%	0.5%	9.7%	8.2%	41.9%
Surprise	6.4%	4.8%	0.4%	3.3%	0.2%	0.3%
Scare	0.4%	1.1%	0.1%	1.8%	0.2%	4.3%
Disgust	1.8%	41.4%	2.0%	16.1%	1.6%	2.5%

Table 2 – Facial expressions of the spokesperson when tasting the juice

	Facial expression when saying it is delicious					
	Celebrity		Expert		Consumer	
	Congruent	Incongruent	Congruent	Incongruent	Congruent	Incongruent
Neutral	19.8%	29.1%	42.2%	81.7%	43.2%	70.1%
Happiness	73.8%	5.9%	53.2%	2.3%	57.0%	3.8%
Sadness	1.0%	4.4%	1.7%	22.0%	0.8%	1.9%
Anger	2.0%	49.9%	0.7%	9.7%	0.6%	31.9%
Surprise	0.5%	0.9%	2.1%	0.3%	0.4%	0.0%
Scare	0.7%	12.9%	1.0%	0.1%	0.3%	0.1%
Disgust	0.8%	7.6%	1.8%	2.7%	0.1%	0.6%

Table 3 – Facial expressions of the spokesperson when saying it is delicious

4.2. Participants

Individuals were invited to participate in the experiment voluntarily by scheduling the experiment through the internet. In the period from 11/06/2018 until 15/06/2018 a total of 90 volunteers - 30 for each spokesperson - have participated in the study. However, only 81 participants were considered for valid analysis as one subject's data collection was frequently disconnected, producing incomplete readings, and due to a software problem 8 participants' results were lost. From the valid sample of 43 females and 38 males, 60.9% were aged between 18 and 30 years old, 32.2% between 31 and 55.

Participants were randomly divided into three groups: one group watched the video with the celebrity, another with the expert and another for the typical consumer endorsement, in a between-subject experiment. Each participant belongs exclusively to one group and was asked to watch two different videos, one fully congruent and another incongruent,

performing a within subject's experiment, according to the previous mentioned 2x3 factorial design experience.

From the total of 81 individuals, celebrity and consumer had 27 and 28 participants respectively, while the group that were selected with the expert advertising had 26 valid participants. When it comes to the level of congruity, both congruent and incongruent videos had 81 valid participants.

4.3. Pre-test

One female participant, aged 23, that did not participate in the actual study was used to pre-test the whole experience, in order to guarantee maximum efficiency and feasibility of results. The laboratory was prepared with all the equipment and materials needed for the experiment. The participant was properly briefed about everything that concerns the experience and the equipment used, signing a consent report agreeing to participate in the pre-test.

After being briefed, eye-tracking glasses were properly calibrated according to participant's pupil and retina. Each video was played during the pre-test. While watching the video participant's visual attention were always measured. After each video, a questionnaire about that specific video were filled, along with the Self-Assessment Manikin scale.

Conducting the pre-test was highly important for the researcher to be familiarized with the equipment and all the procedures, and to have an idea for how many time a participant will take to do the whole experiment.

4.4. Design and procedure

In order for a better execution of this experiment, the researcher had an external assistant, which was instructed about all the procedures and cautions. Light display and room temperature were controlled and set to approximately 23 degrees, for the participants to be comfortable. were seated approximately one meter away from the 38 inches TV and were asked to fill a consent form with the instructions, which included information of the

progression of the experiment such as all the technological equipment used and the realization of questionnaires. Despite being written in the consent form, each participant was properly briefed about all the technological apparatus to which they were to be exposed throughout the experiment, as well as the cautions with the eye tracking glasses and were advised to minimize their head movements.

Before the experiment, pupil of each participant was calibrated. First they were asked to look ahead, for the researcher to calibrate it. Then, the eye tracking equipment was calibrated using a four point calibration procedure, one on each TV corner. A quick test was also performed, in order to see if the calibration was properly done, to identify potential failures that could compromise data collection.

Each participant was exposed to two different videos, with approximately 30 seconds. First, they saw the congruent video and then the incongruent one. After visualizing the first video, participants were asked to answer a brief questionnaire specifically about that advertising. Once finished the questionnaire, eye tracking equipment was calibrated again, to guarantee the maximum precision for both analyses. Then, participants were presented with the incongruent video and respective questionnaire, similar to the first one, but this one was a little bit longer since it contains more general and demographic questions in the end. Attention to the congruent/incongruent situation was measured using an area of interest (AOI) that recorded attention when participants looked directly to the spokesperson eyes and mouth, where facial expressions are more evident. When measuring the differences between type of spokesperson, attention was recorded every time participants fixed the eyes of the actor's face.

At the end of the experiment each participant was rewarded with a body language and facial expressions workshop, as a thank you for their participation.

4.5. Questionnaire

The questionnaire was the same for all participants and for both congruent and incongruent situations, allowing for an evaluation and comparison of the different experimental settings. First questions were regarding pleasure and arousal, measured using adSAM through a nine-point pictorial scale ranging from 1 to 9, in an ascending

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order. Then, participants evaluated purchase intention according to Greewall (1991) and Zeithaml (1996) indicators, ranging from 1 (strongly disagree) to 5 (strongly agree). The same 1-5 Likert point scales were used to measure the other items, according to different indicators. WOM intentions also used indicators validated by Zeithaml (1996), and trust indicators were based on Hyeonjin Soh (2009). Only perceived quality was measured with a different scale, form 1 (very low) to 5 (very high), according to Dodds (1991).

At the end of the questionnaire, more general questions regarding participants perception of the incongruence were also answered, along with demographic questions.

Construct	Item	Author
Purchase Intention	The likelihood of purchasing this product is... (very high to very low)	Greewall, 1991
	If I were going to buy this product, I would considering buy this model (strongly agree to strongly disagree)	
	The probability that I would considering buying this product is (very high to very low)	
	In the near future I'll surely buy this product (strongly agree to strongly disagree)	Zeithalm, 1996
	I'll consider product X as my first option (strongly agree to strongly disagree).	
Perceived Quality	The likelihood that the product would be reliable is: (very high to very low)	Dodds, 1991
	This product should be of: (very good quality to very poor quality)	
	This product would seem to be tasty (strongly agree to strongly disagree).	
Trust	This ad is truthful (strongly agree to strongly disagree)	Hyeonjin Soh, 2009
	This ad is credible (strongly agree to strongly disagree)	
	This ad is reliable (strongly agree to strongly disagree)	
	This ad is clear (strongly agree to strongly disagree).	
	This product gives me a feeling of confidence (strongly agree to strongly disagree)	Moorman et al. 1992
	Product X enjoys my confidence (strongly agree to strongly disagree)	
WOM Intention	I'll tell other people positive things about product X (strongly agree to strongly disagree)	Zeithalm, 1996
	I'll recommend product X to others (strongly agree to strongly disagree)	
	I'll encourage others to buy product X (strongly agree to strongly disagree)	

Table 4 – Questionnaire items

5. Results

Results were obtained through questionnaires answered by the participants after the visualization of the video ads. At the end of the questionnaires, more general questions were asked about their interpretation of the incongruence. From the total of 90 participants, 71 had identified the congruent video as the one they would buy, 5 preferred the incongruent one, while 14 had no preference or didn't like any of them. However, when forced to choose between the congruent and the incongruent video, only 8 participants from the total of 90 have choose the incongruent one. From those 8 participants who choose to buy the incongruent video, 6 of them did not saw any difference in the facial expression in the two videos.

5.1. Descriptive statistics

Two different non-parametric tests were used to validate the moderating hypothesis that different types of spokesperson and the level of congruity would have different results in the model.

Wilcoxon signed-rank test is the non-parametric test equivalent to the dependent t-test. Once the normality assumption was violated in this study, t-test cannot be applicable, and Wilcoxon is its substitute to compare two sets of scores that come from the same participants. Wilcoxon test was used to compare the questionnaire results in two different situations, answered by the same participant: congruent and incongruent situation. Results show that for purchase intention, ($Z = -7.308$; $p = 0.00$), trust ($Z = -7.031$; $p = 0.00$), perceived quality ($Z = -7.532$; $p = 0.00$), WOM intentions ($Z = -6.786$; $p = 0.00$), pleasure ($Z = -7.100$; $p = 0.00$) and attention ($Z = -2.273$; $p = 0.023$), the congruent video has much better mean scores than the incongruent video. Only the variable of arousal has no differences between congruent and incongruent situation, with $Z = -0.308$ and a p-value of 0.758.

Kruskal Wallis test was also performed at the beginning of the analysis to test if a different type of spokesperson (celebrity, expert and general consumer) has different results in the model. Once the data does not follow a normal distribution, one-way ANOVA cannot be used, and Kruskal Wallis is the non-parametric test to replace it when dealing with

multiple independent comparisons. Results show that for a significance level of 5% there are only significant differences between groups for the variable of attention ($p = 0.047$). A post-hoc test was conducted in order to understand which spokesperson makes those differences significant. Results show statistically evidence ($p = 0.049$) in the level of attention between consumer and expert endorsement, being the ads made with general consumer the ones with more attention.

Despite its undisputable value both Wilcoxon and Friedman tests only focuses on the median value of each variable. Results shows that the congruent situations were much better evaluated for all the variables under analysis than the incongruent one. However, those tests do not provide explanations about how model relationships vary when the moderating effect changes. Multi-group analysis from PLS-SEM focuses on those relationships and were used in the structural model analysis to test H9 and H10.

5.2. Structural equation model analysis

Structural Equation Modelling (SEM) is a second-generation multivariate data analysis method that has been used in marketing research due to its capacity to test theoretically supported linear and additive causal models (Chin, 1996; Haenlein & Kaplan, 2004; Statsoft, 2013). Bollen (1989) and Hair et al. (2012) accorded that structural equation modeling (SEM) has given researchers the opportunity to test theories and concepts. Hair et al. (2012) explains that SEM includes regression-based approaches, like multiples regression, logistic regression and variance analysis applied for confirmatory research. However, SEM could also be used for exploratory research with its factor and cluster analysis.

There are two types of methods when it comes to SEM; covariance-based techniques (CB-SEM) and variance-based partial least squares (PLS-SEM). However, this study will use PLS-SEM due to its smaller sample size requirements compared to CB-SEM (Henseler et al., 2009). Reinartz et al. (2009) showed that PLS-SEM achieves high levels of statistical power when compared to CB-SEM, even with a small sample size. Also, PLS-SEM was chosen because it has no assumptions about data distribution (Vinzi et al., 2010), and the present study violates the normality assumption.

5.2.1. Goodness of the overall model

Model fit analysis should be the first analysis to be done, before examining the measurement and structural model, and could be reported by means of inference statistics or use of fit indices (Henseler et al., 2016). Smart PLS software provides standardize mean square residual (SMSR) and normed fit index (NFI) to test the model fit, for both saturated and estimated model. The saturated model assesses correlation between all constructs while the estimated takes the model structure into account (Henseler et al., 2016).

According to Hair et al., a value of less than 0.1 for SMSR is a good fit. However, more conservative researchers defend that for a good model fit that value should be less than 0.08 (Hu and Bentler, 1998). The presented model has a SMSR value of 0.042 for the saturated model and 0.056 for the estimated one, which indicates a good fit in both cases.

When it comes to the NFI, the closer the NFI to 1, the better the model fit (Bentler and Bonett, 1980). Lohmöller (1989) declares that values above 0.9 represent acceptable fit. This model has a saturated NFI of 0.873 and an estimated one of 0.856, which are close to 0.9, representing a good fit.

Also, the sample size satisfies the 1:10 ratio for PLS path analysis (Hair et al., 2016). This ratio implies that the sample size must be at least 10 times higher than the maximum number of inner model path relationships directed at a particular construct. The present study has a maximum of two path relationships for each construct and a total of 81 participants, which is enough. When separated by type of spokesperson, the ratio is still good, since expert endorsement with 26 valid participants was the video with less sample size, which is higher than the minimum of 20 for this experiment.

5.2.2. Outer model results

The first step in PLS-SEM analysis is to evaluate the outer model, which determines how well the items (questions) are related with the constructs. The analysis of the outer model helps predicting the relationships between each of the latent construct that is linked with the indicators (Hair et al., 2011). Generally, there are two distinct measures of the

indicators in PLS-SEM that are reflective and formative outer model (Becker et al, 2012), that will be developed next, even though no formative constructs were used in the present model.

5.2.2.1. Reflective model

Four aspects were considered to evaluate the reflective measurement model: convergent validity, internal consistency reliability, composite reliability and discriminant validity. Table 1 presents the results, where it can be seen that the indicators T1 and T4 were deleted from the original model because of their low outer loadings, that should be higher than 0.7 (Hulland, 1999). Examining the convergent validity, the average variance extracted (AVE) should be higher than 0.5 for all the constructs, which is verified (Bagozzi and Yi, 1988).

Latent Variable	Indicators	Outer loadings	Chronbach's Alpha	Indicator Reliability (i.e., loadings ²)	Composite Reliability	AVE	VIF
Pleasure*	Pleasure	-	-	-	-	-	-
Arousal*	Arousal	-	-	-	-	-	-
Attention*	Attention	-	-	-	-	-	-
Perceived Quality	Q1	0.928	0.936	0.860	0.959	0.887	2.940
	Q2	0.952		0.906			4.810
	Q3	0.946		0.895			3.794
Purchase Intention	PI1	0.911	0.944	0.831	0.957	0.817	3.750
	PI2	0.873		0.762			1.000
	PI3	0.925		0.855			3.387
	PI4	0.905		0.819			4.900
	PI5	0.903		0.816			4.567
Trust	T2	0.911	0.951	0.831	0.964	0.872	4.932
	T3	0.935		0.873			5.906
	T5	0.944		0.891			7.033
	T6	0.944		0.892			6.904
WOM	WOM1	0.960	0.953	0.953	0.977	0.955	5.857
	WOM2	0.981		0.957			5.857

* Single item measure

Table 5 – Reflective model indicators from SmartPLS

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When it comes to the internal consistency reliability, Chronbach's alpha was traditionally used. However, prior literature has suggested the use of composite reliability as a replacement because the first one provides a conservative measure in PLS-SEM (Bagozzi and Yi, 1988; Hair et al., 2012). Even though its replacement, Chronbach's alpha can also be analyzed, and from Table 1 we conclude that all constructs are higher than minimum required of 0.7 (Nunally, 1978; Hair et al, 2014). Table 5 also shows that all the indicators have composite reliability higher than 0.6, which leads to the conclusion that the model is internally reliable (Bagozzi and Yi, 1988).

Lastly, there are three steps that need to be evaluated to examine the discriminant validity. First, the Fornell and Larcker criterion (Fornell and Larcker, 1981) indicates that the square root of AVE in each latent variable should be used to establish discriminant validity, if this value is larger than other correlation values among the latent variables. Table 2 was created to test this assumption. For example, the latent variable *Purchase Intention*'s AVE was found to be 0.817 (from table 5), hence its square root becomes 0,904, which is higher than any value in its column or line.

	Arousal	Attention	Perceived Quality	Pleasure	Purchase Intention	Trust	WOM Intention
Arousal	1.000						
Attention	0.019	1.000					
Perceived Quality	0.099	-0.164	0.942				
Pleasure	0.194	-0.249	0.787	1.000			
Purchase Intention	0.182	-0.178	0.855	0.768	0.904		
Trust	0.183	-0.151	0.872	0.732	0.821	0.934	
WOM Intention	0.174	-0.118	0.792	0.688	0.843	0.851	0.977

Table 6 – Fornell and Larcker indicators from SmartPLS

The second step is to analyze if the indicators loadings are higher in all cases compared to all of its cross loadings with other constructs. Table 7 shows that this assumption is verified, as all the bold values are loadings that are above the minimum of 0.5 and all of them are higher than the respective cross loadings (Hair et al., 2014).

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	Arousal	Attention	Perceived Quality	Pleasure	Purchase Intention	Trust	WOM Intention
Attention	0.019	1.000	-0.164	-0.249	-0.178	-0.151	-0.118
Arousal	1.000	0.019	0.099	0.194	0.182	0.183	0.174
PI1	0.251	-0.140	0.744	0.704	0.911	0.712	0.766
PI2	0.083	-0.202	0.808	0.686	0.873	0.744	0.675
PI3	0.158	-0.119	0.796	0.727	0.925	0.739	0.765
PI4	0.144	-0.152	0.774	0.672	0.905	0.760	0.815
PI5	0.190	-0.189	0.739	0.679	0.903	0.750	0.784
Pleasure	0.194	-0.249	0.787	1.000	0.768	0.732	0.688
Q1	0.130	-0.097	0.928	0.737	0.769	0.816	0.743
Q2	0.060	-0.185	0.952	0.736	0.816	0.835	0.776
Q3	0.090	-0.180	0.946	0.750	0.831	0.814	0.717
T2	0.156	-0.158	0.722	0.614	0.674	0.911	0.722
T3	0.184	-0.091	0.771	0.646	0.728	0.935	0.761
T5	0.156	-0.147	0.863	0.701	0.792	0.944	0.830
T6	0.186	-0.167	0.883	0.760	0.853	0.944	0.853
WOM1	0.191	-0.098	0.755	0.662	0.817	0.812	0.960
WOM2	0.158	-0.129	0.794	0.667	0.839	0.850	0.981

Table 7 – indicators loadings from SmartPLS

The last criterion to analyze the discriminant validity is Heterotrait-monotrait (HTMT) ratio of correlation. HTMT values close to 1 indicates a lack of discriminant validity. Using the HTMT as a criterion involves comparing it to a predefined threshold, established by Gold et al. (2001) with a maximum value of 0.90. Table 8 indicates a small lack of correlation between perceived quality and purchase intention, as well as perceived quality and trust, with HTMT ration a little bit higher than 0.90, probably most of the items of constructs are measuring the same thing (Hamid et al., 2017). Also, its confidence interval should not include 1, which is also a verified condition (Henseler et al., 2015).

	Arousal	Attention	Perceived Quality	Pleasure	Purchase Intention	Trust	WOM Intention
Arousal							
Attention	0.019						
Perceived Quality	0.102	0.169					
Pleasure	0.194	0.249	0.813				
Purchase Intention	0.189	0.183	0.910	0.791			
Trust	0.187	0.155	0.919	0.747	0.860		
WOM	0.183	0.119	0.839	0.696	0.893	0.889	

Table 8 – HTMT ration from SmartPLS

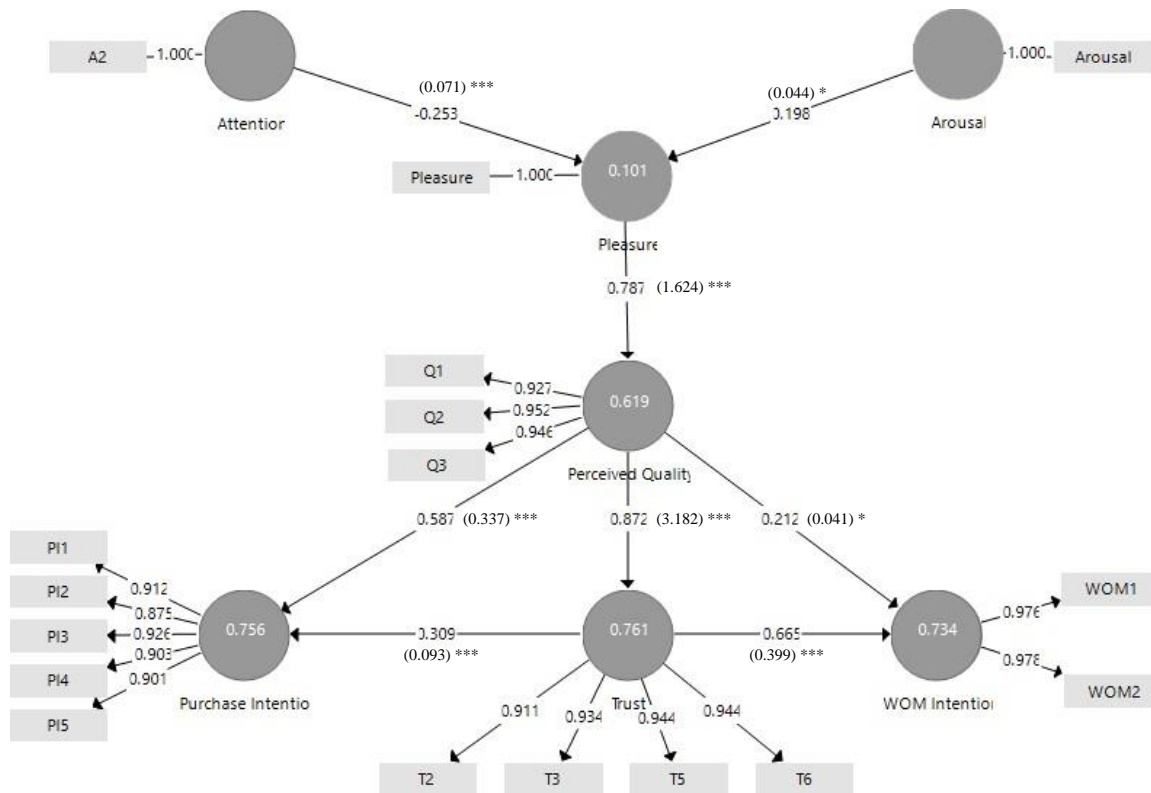
5.2.2.2. Formative model

Although no formative constructs were used, formative model was also analyzed. The variance inflation factor (VIF) is usually used to predict collinearity in the indicators. The absence of collinearity was established, as each indicators VIF value is lower than 10. Rigle et al. (2015) describes collinearity issues with VIF values higher than 5. However, Hair et al. (1999) states that the maximum VIF value should be 10. One indicator (WOM3) had to be deleted from the model, due to its negative impact on collinearity. With such alteration, the presented model has the maximum value of 7.033 which is enough to claim that there are no collinearity issues.

5.2.3. Inner model

There are no collinearity issues among the predictor constructs, as all VIF values for the inner model ranging from 1.000 to 4.182, which are below the maximum value of 5 (Hair et al., 2017). Once checked the collinearity and the model fit for the inner model, SmartPLS evaluates the structural model by examining five important indicators: determination coefficients (R^2), predictive relevance (Q^2), effect size (f^2) and significance of the path coefficients (β) and p-values (Hair Jr. et al., 2014). Hair et al. (2013) suggested in scholarly research that for marketing studies, R^2 values of 0.75, 0.50, or 0.25 for endogenous variables can be respectively described as substantial, moderate or weak effect. The degree of explanation of the variance in the endogenous variable permits concluding how much the latent variables explain the endogenous one. Figure 20 shows the overall model obtained.

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Note: The ***, **, and * indicate p-values less than 0.001, 0.01 and 0.05 respectively. The figure presents the effect sizes (f^2) in the parenthesis next to each path coefficient (β). R^2 are presented inside the circles.

Figure 11 – PLS algorithm analysis from SmartPLS

A bootstrapping analysis with 1000 subsamples and a significance level of 5% was used to test the main hypothesis. Results shows that 10.1% of participants pleasure is explained by attention and arousal ($R^2 = 0.101$). Despite both variables had a significant impact on pleasure ($p < 0.05$), arousal had a greater impact ($\beta = 0.198$) than attention, which had a negative impact ($\beta = -0.253$). Therefore, H2 is supported while H1 is not supported by the results. H3 is also supported, given that perceived quality is 61.9% explained by pleasure ($R^2 = 0.619$), with a positive significant impact ($p = 0.00$; $\beta = 0.787$).

For the endogenous variable trust, the model shows that 76.1% of its variance is explained by perceived quality ($R^2 = 0.761$), which indicates a strong effect with a high and significant impact ($\beta = 0.872$; $p = 0.00$). The hypothesis that perceived quality positively influences trust (H4) is, therefore, supported.

It was also hypothesized that trust and perceived quality will positively influence WOM intentions (H6 and H8). Results shows that WOM intention is 73.4% explained by those two variables ($R^2 = 0.734$), which almost represents a strong effect. Despite both trust and perceived quality have a significant impact on WOM intentions ($p < 0.05$), its variance is explained better by trust ($\beta = 0.665$) than by perceived quality ($\beta = 0.212$). Consequently, H6 and H8 are statistically supported.

Lastly, trust along with perceived quality has a strong effect on purchase intention variance ($R^2 = 0.756$). Both effects are positive and significant, with perceived quality having a stronger impact than trust, with path coefficients of $\beta = 0.587$ and $\beta = 0.309$, respectively. Overall, the hypotheses were all supported, except for H1.

In addition, by doing a blindfolding analysis it's possible to conclude that all of the dependent variables Stone-Geisser's Q^2 are larger than zero, ranging from 0.514 to 0.660, and therefore confirm the model's predictive validity.

5.2.4. Multi-group analysis

The structural model was cross-validated across the three types of spokesperson and the level of congruity using multi-group permutation tests (Henseler et al., 2009). A permutation approach does not have distributional assumptions, but it requires a similar sample in all groups under analysis (Chin and Dibbern, 2010; Henseler et al., 2011). Despite the SPSS results show significant differences between congruent and incongruent answers, Wilcoxon and Friedman tests only focuses on the mean value of each variable. The relationships between variables also need to be evaluated in order to test H9 and H10. MGA do not provide explanation regarding mean values, but about how model relationships vary when the moderating effect changes. According to Henseler et al. (2009), p-values smaller than 0.05 and higher than 0.95 indicate a significant difference in the path coefficients. Adapting to the present study, the same authors also suggest that p-values bellow 0.05 points out that congruent situations influence more the relation than the incongruent one, while p-values above 0.95 indicates that the second group has higher results in the bootstrapping analysis.

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MGA results on Table 9 shows that the relationship between trust and WOM intention is significantly different, with a p-value of 0.009. This value suggests that trust has a higher influence in WOM intentions in congruent situations rather than in the incongruent ones.

The relationship between perceived quality and WOM intention was also found to be significantly different between the congruency groups. However, in this case, results show that perceived quality influences more the WOM intentions during an incongruent situation rather than in a congruent one ($p = 0,.$).

Table 9 also shows that the paths from perceived quality to trust and WOM intentions are significantly different between the two groups, which partially supports H10.

	β congruent	β incongruent	Δ	Permutation p- value
Arousal -> Pleasure	0.278	0.237	0.041	0.408
Attention -> Pleasure	-0.108	-0.154	0.046	0.380
Perceived Quality -> Purchase Intention	0.447	0.482	0.035	0.580
Perceived Quality -> Trust	0.792	0.811	0.019	0.648
Perceived Quality -> WOM Intention	0.001	0.441	0.440	0.997
Pleasure -> Perceived Quality	0.555	0.621	0.066	0.741
Trust -> Purchase Intention	0.303	0.387	0.084	0.683
Trust -> WOM Intention	0.797	0.430	0.367	0.009

Table 9 – MGA results for the congruency/incongruency relation

The same procedure can be used to compare the type of spokesperson, where three MGA analyses were made: celebrity vs. consumer, celebrity vs. expert and consumer vs. expert. Results on table 10 show that there are no relevant differences between celebrity and expert endorsement for any of the paths, with p-values for the paths ranging from 0.130 to 0.820.

For a confidence level of 5%, MGA suggests that the relationship between perceived quality and purchase intention is significantly different for celebrity and consumer endorsement. The p-value of 0.039 means that perceived quality influences more the purchase intention when there is a celebrity in the ad, compared when there is a general consumer speaking.

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When it comes to differences between expert and consumer endorsement, there is a difference in the path from attention to pleasure, meaning that attention influences more the levels of pleasure during the ads when there is a consumer speaking.

Table 10 shows that the paths from perceived quality to purchase intention are significantly different between celebrity and consumer. However, no other relationship regarding celebrity endorsement is significant, and for that reason we reject H9.

	β Celebrity	β Consumer	β Expert	Δ Celebrity, Consumer	Δ Celebrity, Expert	Δ Expert, Consumer	P-Value Celebrity, Consumer	P-Value Celebrity, Expert	P-Value Expert, Consumer
A -> P	0.307	0.206	0.068	0.101	0.239	0.138	0.302	0.130	0.250
Att -> P	-0.233	-0.442	-0.054	0.209	0.179	0.030	0.102	0.820	0.988
PQ -> PI	0.720	0.402	0.564	0.318	0.156	0.162	0.039	0.193	0.815
PQ -> T	0.865	0.901	0.860	0.036	0.005	0.031	0.815	0.447	0.145
PQ -> WOM	0.373	0.126	0.108	0.247	0.265	0.018	0.135	0.124	0.457
P -> PQ	0.781	0.799	0.790	0.018	0.009	0.009	0.585	0.540	0.453
T-> PQ	0.216	0.497	0.293	0.281	0.077	0.204	0.937	0.645	0.158
T -> WOM	0.528	0.794	0.704	0.266	0.176	0.090	0.888	0.780	0.351

Legend: A – Arousal; P – Pleasure; Att – Attention; PQ – Perceived Quality; PI – Purchase Intention; T – Trust; WOM – Word of Mouth Intentions.

Table 10 – MGA results for the types of spokesperson

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H1	There is a positive relationship between consumers visual attention and their level of pleasure.	Not supported
H2	There is a positive relation between arousal and pleasure, when watching the advertisements.	Supported
H3	There is a positive relationship between consumer pleasure and his perceived quality of the advertised product	Supported
H4	There is a positive relationship between product perceived quality and consumers trust in the product.	Supported
H5	There is a positive relationship between perceived product quality and consumers intention to purchase.	Supported
H6	There is a positive relationship between perceived product quality and consumers WOM intentions.	Supported
H7	There is a positive relationship between trust in the advertised product and the intentions to buy the product.	Supported
H8	There is a positive relationship between trust in the advertising and WOM intentions.	Supported
H9	Celebrity endorsement experiments will have stronger effects on the above hypothesis (H1-H8) than non-celebrity ones.	Not supported
H10	Congruent situations will have stronger effects on the above hypothesis (H1-H8) than incongruent ones.	Partially supported

Table 11 – Hypothesis summed up

6. Discussion

The purpose of this chapter is to further discuss the findings within the conceptual framework established in chapter 2.2. The conceptual model of this study recognized multiple challenges and opportunities regarding the role of facial expressions in advertising. This study was mainly designed to investigate how facial expressions of emotion would influence consumers decision to purchase a certain product. Besides that, visual attention, as well as other consumers perceptions and intentions such as quality, trust and WOM were also studied.

One of the main goals was to find any moderation relationship between the level of congruity and the variables under analysis. Two analyses were conducted, using two different methods. Comparing the mean scores of each variable it is observable that the congruent videos had much higher scores for purchase intention, perceived quality, trust and WOM intentions, than the incongruent ones. Based on descriptive statistics results, there is evidence to prove the influence that an incongruity has in each variable mentioned before. However, despite the mean scores were different for congruent and incongruent ads, multi group analysis from SmartPLS indicates that only the paths from perceived quality to WOM intentions and from trust to WOM intentions are significantly different between congruent and incongruent ads. Results show that trust influences more the level of WOM intentions during the congruent situation rather than the incongruent one, meaning that in both cases when trust increases WOM intention also increase, but that rising is significantly higher in the congruent situation compared to the incongruent one. Lim and Beatty (2005) argued that it is unlikely for consumers to use word-of-mouth communication when there is an incongruity in the message, which helps explaining the obtained results.

When it comes to the path from perceived quality to WOM intentions, results show that there is a positive relationship, as hypothesized. However, table 9 shows that congruent video had a $\beta = 0.001$ while the incongruent one had a $\beta = 0.441$. MGA also provides p-values for each path and in the congruent video this relation is not significant ($p > 0.05$). Therefore, the perceived quality only affects WOM intentions in the incongruent situation. Dichter (1966) says that incongruity could be used in marketing to make people reflect upon the unusual angle of the brand. The shock of difference is likely to produce

a tension which can be used to produce WOM communication. A key feature of WOM impact is its valence. WOM communication can be either positive or negative. This experiment only took in consideration positive WOM, but also negative WOM might happen for the analyzed relationships, as argued by some researchers, negative WOM has a greater effect on receivers than does positive WOM (Arndt, 1967; Herr, Kardes and Kim, 1991; Yang and Mai, 2010).

Altogether, both descriptive statistics and multi group analysis lead to the conclusion that an incongruity have indeed impact in consumers evaluation of the advertising. However, in the model relationships those differences are only relevant for the aforementioned paths.

Still regarding incongruencies, previous studies suggests that situations with high incongruity result in more attention (Mandler, 1982; Moore et al., 2016). The present study corroborates those findings that incongruent videos had more visual attention. To measure the attention, eye-tracking technology was used, and it was only counted the attention when participants looked directly to spokesperson mouth and eyes, where facial expressions are more evident. Mandler (1982) and Moore et al. (2016) explain those results with the need of processing the information in an incongruent situation. Participants took more time to process an incongruent information, making individuals pay increased attention time to those situations.

Also, participants felt more pleasant during the congruent videos rather than the incongruent ones, as expected from the literature. On the contrary, arousal is not influenced by the incongruencies. This could happen because individuals may not get excited or aroused when watching an ad on television, due to the huge number of ads that they are bombarded every day. The positive results of pleasure, however, might be explained with the nature of the human being to feel happier and more pleasant when seeing someone smiling than when people are angry or disgusted (Ekman, 1984).

The possible moderation effect of the type of spokesperson was also studied. Prior literature suggests that celebrity endorsement would have more visual attention than non-celebrity ads. Felix (2014) argue that messages delivered by well know personalities achieve a higher degree of attention in consumers, which is also supported by Ohanian

(1991). However, results do not confirm these hypotheses. Visual attention was, once more, measured with eye-tracking technology, but unlike the analysis of the incongruency effects, where all focus was given to spokesperson mouth and eyes in order to better see his facial expression, when measuring attention, the whole face of the actor was defined as an area of interest. The advertisements were not professionally edited, and despite the videos were as professional as possible, there were details that might explain the results.. When the spokespersons were tasting the juice and speaking about it, a close-up angle was used, for participants better evaluate the advertising. Consequently, in the frames when attention was analyzed, spokespersons face fill almost the entire screen, which leaves no room to divert attention. Therefore, participants almost paid 100% attention to those frames, having no differences between spokesperson.

When it comes to the effects of the spokesperson on pleasure and arousal, literature suggests that both celebrity ads would have higher pleasure and arousal than the ones with consumer and expert endorser (Damásio, 1985). However, results show a different conclusion, supporting that pleasure and arousal do not increase when celebrity appeared. Questionnaires show that only 6 out of 27 participants didn't recognize the celebrity presented in the advertising. 21 participants did recognize him but may not have a familiar relation with his face because despite being a recognized celebrity, his face does not appear on TV, newspapers or social network every day, which may have influence the results regarding pleasure and arousal. Also, those hypotheses were formulated based on a study where galvanic skin responses were applied. Zurawicki (2010) says that skin conductance is a sensitive gauge of emotional arousal and Damasio (1994) affirming that EDA, as an indicator of arousal, is able to observe differences in sweat, as more aroused an individual becomes, whether this is a positive or negative arousal. EDA is, therefore, more feasible and precise than adSAM, and this could be an explanation for the differences between the literature and the actual results. Once more, these results were obtained from a statistical analysis based on mean values.

Using PLS MGA it's possible to conclude that the path from attention to pleasure is significantly different between expert and consumer endorsement. Results show that when attention increase, pleasure levels increase more for a consumer spokesperson compared with an expert ($p = 0.988$). Consumer endorsers are more suitable to transmit emotional messages and rational messages are more appropriate to use by experts (Beldad

et al., 2017; Smith, 1993; Claeys et al., 2013). This argument could help explaining the obtained results, since participants felt more pleasant when they payed increased attention to consumers videos, rather than expert ones. Also, experts are usually associated with more polite and formal messages, which might be perceived as less pleasant to participants.

MGA also showed significant differences in the path from perceived quality to purchase intention, between celebrity and consumer endorsement. Results express that both relations are positive, but it is higher for the celebrity endorser. Our results are in concordance with Clark and Horstman (2003), arguing that a message communicated by a celebrity have much higher intention to purchase than when the same message is communicated by a non-celebrity.

It was first hypothesized that visual attention will positively influence participants levels of pleasure. However, results prove the opposite showing that when consumers payed more attention to the ad, they felt less pleasant. Given that we suggest that this happens because as explained before, when the spokespersons were speaking their faces filled almost the entire screen and were too close to the camera, which might leave the participants uncomfortable, decreasing their pleasure.

Pleasure was also theorized to be influence by arousal. Lang (1994) argued that arousal acts as a V-shaped function of valence, meaning that both pleasant and unpleasant situations would have high arousal levels. This experiment corroborates Lang's study, concluding that arousal positively influences pleasure.

Still regarding pleasure, its influence in perceived quality was proved, as expected from the literature. When consumers felt more pleasant they perceived better the quality of the product, also supported by Isen et al. (1978, 1982) and Chebat et al. (1995).

Many researches have studied how trust is influenced by service quality (Grönroos 1983; Zeithaml et al., 1988; Rust and Oliver 1994; Zeithaml et al., 1996; Dickson et al., 2002). However, these studies emphasize service quality and not perceived quality, which are two different concepts defined by Holbrook and Corfman (1985). The present study need to use the concept of perceived quality, since participants didn't have the opportunity to

try the product, they only have formed an image about its quality according to the ad that they saw (Holbrook and Corfman, 1985). Therefore, the present study found a new relationship between perceived quality of a product and consumers trust in it, which matches the suggestion made based on previous literature. It was found that, like what happens with service quality and actual quality, trust also increase when perceived quality increases. WOM intentions and purchase intention were also proved by the model to be positively influenced by consumers perceived quality of the product, as expected from the literature.

Still regarding consumers trust, prior literature had already explained the relation between trust and WOM (Chu & Kim, 2011; Gremler et al., 2001; Matos & Rossi, 2008; Sichtmann, 2007). However, those studies conclusions were made based on trust in the product and trust in the organization. Given the purpose of this study, we found relevant to study a different concept of trust, rather than trust in the product or in the organization. Once participants never had the opportunity to try the product, and the brand was created only for this purpose, those two concepts of trust were difficult to apply in this project. Therefore, and since there is a gap in the literature, the present study has suggested that WOM intentions are also influenced by consumers trust in the advertising. Consumers answered a questionnaire about their confidence in the ad that they have seen, and results confirm that suggestion, which is a relevant conclusion that might fulfil a gap in the literature regarding the concept of trust and WOM intentions.

Various researches have shown a direct relationship between trust and purchase intentions (Olson and Olson, 2000; Bhattacharjee, 2002; Gefen, 2002; Kim et al., 2007). Gambetta (1988) stated that trust is particularly relevant in situations of ignorance or uncertainty. Participants were in those conditions when they did the experiment, they had no idea about the product or the brand because it was not a real brand. By putting participants in an ignorant situation, and once validated the hypothesis that trust in the ad had the same results that trust in the product or in the organization, it was possible to test a new hypothesis, corroborating the literature that trust in the advertising is indeed an influent factor in purchase intention.

7. Conclusion

A lack of studies about facial expressions in advertising context, along with also a gap of research on consumers perception of the information when faced emotions, lead the researcher to study the impact of an incongruent facial expression in advertising. Prove its influence in consumer purchase intention was the main goal of the study. Results shows that the congruent videos ads had much higher scores for purchase intention, perceived quality, trust and WOM intentions, than the incongruent ones. This is enough to claim that the project main goal was reached, but other conclusions are also important to mention. All the proposed model relationships, with exception to the one regarding attention and pleasure, were indeed significant. Therefore, the present study adds a new approach to the existing literature regarding those variables, that had not been neither study in the advertising context or applied to facial expressions of emotion. Despite that, the major finding of this study was the moderating role that congruence has in some of the proposed relationships.

This research makes important contributions to the literature and practice. It demonstrated a new approach to the use of emotions in marketing and advertising. The examination of the structural model, with multiple predictors of consumer buying process, allows the researcher to conclude that facial expressions of emotion have not only a pivotal impact in consumer purchase decision, but also in all consumer behavior.

Even though in the last decades emotions had become an important research topic in all behavioral sciences, when it comes to marketing, researches focused on specific areas of emotions, such as its measurement, consequences and engagement. Until now, marketers were focused in creating appealing advertisements to engage and influence consumers to buy their products, using emotions for that. However, they fail in knowing about the emotional information the consumer actually perceives from the ads. This research results prove that consumers may perceive the wrong information by recognizing incongruent facial expressions made by the advertising spokesperson. Such findings could help marketers to better execute their advertising campaigns, paying more attention to the expressions made by the spokesperson, in order to deliver the right message to the consumer, without misunderstandings.

8. Limitations and future research

During the development of this study a few limitations were found, which is important to address in order to get the full understanding of the project.

Firstly it was difficult to find scientific papers and journals about facial expressions in marketing from the spokesperson point of view. After an in-depth search it was found other relevant articles that could be used to explain the topic.

Secondly, facial expressions needed to be validated with a proper software. Initially the study was designed to be done with two opposite expressions: happiness and disgust. However, the facial expression of anger and disgust are easily confused due to its similar characteristics. Because of that, the expression of disgust in the consumer videos was difficult to detect, and therefore it had to be done with the expression of anger.

Lastly, since this was an experimental study, it was difficult to bring more participants, and therefore the number of volunteers was limited. Also, in an experiment done in a lab environment it is possible to better control the study, increasing the internal validity. However, lab environment may also be a threat to external validity.

In the future, the same approach should be done with EDA to better analyze the arousal effects. Also, the negative WOM intentions are also important to test in the near future, The first hypotheses of this study was not supported, and therefore the impact that visual attention to facial expressions has on pleasure should be studied again. It would be interesting to test if a happiness expression elicits more pleasure in the participant than an angry one, for instance. To conclude, for future research, the same study should be done in a real environment, in order to sustain the obtained results.

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Appendix


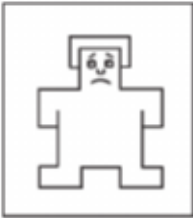
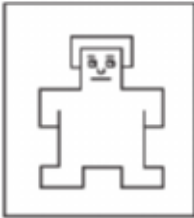


1. Questionnaire

Questionário visualização dos anúncios



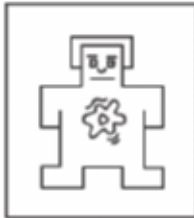
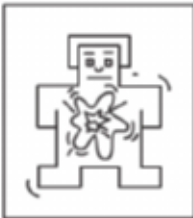

Responda, por favor, a todas as questões apresentadas de forma espontânea.

*Obrigatório

Como se sente após a visualização deste anúncio? *

										
1	2	3	4	5	6	7	8	9		
	1	2	3	4	5	6	7	8	9	
Desprazer Insatisfeito Triste	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Prazer Satisfeito Contente

Como se sente após a visualização deste anúncio? *

										
1	2	3	4	5	6	7	8	9		
	1	2	3	4	5	6	7	8	9	
Calmo	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Exitado

Intenção de compra

Por favor, responda às seguintes questões apenas tendo em conta o video visualizado.

A probabilidade de comprar este produto é: *

	1	2	3	4	5	
Muito baixa	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Muito alta

Se fosse comprar um produto da mesma categoria, consideraria comprar o produto publicitado: *

	1	2	3	4	5	
Discordo plenamente	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Concordo plenamente

A probabilidade de considerar a compra do produto publicitado é: *

	1	2	3	4	5	
Muito baixa	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Muito alta

No futuro próximo irei certamente comprar este produto: *

	1	2	3	4	5	
Discordo plenamente	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Concordo plenamente

Consideraria o produto apresentado como sendo a minha primeira opção de compra: *

	1	2	3	4	5	
Discordo plenamente	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Concordo plenamente

Qualidade do produto

Por favor, responda às seguintes questões apenas tendo em conta o video visualizado.

A probabilidade de que o produto seja confiável é: *

	1	2	3	4	5	
Muito baixa	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Muito elevada

O produto apresentado aparenta ser de: *

	1	2	3	4	5	
Muito má qualidade	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Muito boa qualidade

O produto publicitado parece ser saboroso: *

	1	2	3	4	5	
Discordo plenamente	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Concordo plenamente

Confiança no anúncio

Por favor, responda às seguintes questões apenas tendo em conta o video visualizado.

O anúncio é verdadeiro: *

	1	2	3	4	5	
Discordo plenamente	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Concordo plenamente

O anúncio é creível: *

	1	2	3	4	5	
Discordo plenamente	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Concordo plenamente

O anúncio confiável: *

	1	2	3	4	5	
Discordo plenamente	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Concordo plenamente

O anúncio é claro: *

	1	2	3	4	5	
Discordo plenamente	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Concordo plenamente

O anúncio transmite-me confiança no produto: *

	1	2	3	4	5	
Discordo plenamente	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Concordo plenamente

O produto apresentado tem a minha confiança: *

	1	2	3	4	5	
Discordo plenamente	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Concordo plenamente

Intenções de word of mouth (passar a palavra)

Por favor, responda às seguintes questões apenas tendo em conta o video visualizado.

Vou dizer a outras pessoas coisas positivas sobre o produto apresentado: *

	1	2	3	4	5	
Discordo plenamente	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Concordo plenamente

Vou recomendar o produto a outras pessoas: *

	1	2	3	4	5	
Discordo plenamente	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Concordo plenamente

Vou encorajar outras pessoas a comprar o produto publicitado: *

	1	2	3	4	5	
Discordo plenamente	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Concordo plenamente

Questões Gerais

Com qual dos anúncios se identificou mais? *

- Primeiro
- Segundo
- Ambos
- Nenhum

Se fosse comprar um destes produtos, qual compraria? *

- Primeiro
- Segundo

Reparou na expressão facial feita no segundo anúncio, incongruente com o que o ator estava a dizer? *

- Sim
- Não

Reconheceu o ator presente no anúncio? *

- Sim
- Não

Indique, por favor, o seu sexo: *

- Masculino
- Feminino

Indique, por favor, a sua faixa etária? *

- Menos de 18
- 18 - 30
- 31 - 40
- 41 - 55
- 55 - 65
- Mais de 65
- Outra: _____

ANTERIOR

SUBMETER

2. Pictures



Celebrity Madjer recording the ads



Participant during the eye-tracking experiment