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DOES HUMOR WORK IN ADVERTISING OF PHARMACEUTICAL PRODUCTS?

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Thesis presented to the Escola de Administração de Empresas de São Paulo, Fundação Getulio Vargas, as part of the qualification for granting the title of Master in Business Administration.

Research Area: Marketing Strategy

Thesis Supervisor: Prof. Dr. Delane Botelho

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To my wife Silvia and my sons Ricardo, Felipe, and
Isabella,
for their support and comprehension
during this very special journey.

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ABSTRACT

This thesis aims to evaluate whether humorous television commercials (TVCs) work for non-prescription drugs, known as "over-the-counter" (OTC). The construct *humor in advertising* is controversial since it involves complex and broad typology, and depends on the audience characteristics. Several studies within different product categories indicated that some consumer goods are better suited for humorous TVCs, while others, such as OTC drugs, may not take advantage from it. Paradoxically, drug announcers spend billions of dollars worldwide in humorous OTC ads. An experiment with real consumers was designed as between-and-within-subjects, to test three hypotheses. Sixty women were exposed to pairs of humorous and non-humorous TVCs, for each of the three drug categories (analgesics, vitamins, and laxatives). We used fictional brand names and real ads, and measured four dependant variables: attitude toward the advertising (A_{AD}), attitude toward the brand (A_{BR}), purchase intention (PI), and brand choice (BC), after subjects being exposed to manipulations of two independent variables: humorous vs. non-humorous TV commercials, for the drug categories. Conditional logit model confirmed that humor does not help to persuade respondents, whose choices, attitudes, and purchase intention were less favorable with humorous TVCs, in comparison to non-humorous executions. Future research is presented regarding marketing for pharmaceutical products.

Keywords: 1. Pharmaceuticals – Advertising. 2. Humor in advertising. 3. Television advertising. 4. Consumer behavior – Research – Experiment.

RESUMO

Esta dissertação objetiva avaliar se comerciais de televisão (TVCs) com humor funcionam para medicamentos isentos de prescrição médica, conhecidos como "over-the-counter" (OTC). O construto *humor na propaganda* é controverso uma vez que envolve uma tipologia complexa e ampla, e depende das características da audiência. Diversos estudos feitos com diferentes categorias de produtos indicam que alguns bens de consumo são mais adequados para TVCs com humor, enquanto outros, tais como medicamentos OTC, podem não apresentar vantagens em seu uso. Paradoxalmente, anunciantes de medicamentos gastam bilhões de dólares no mundo inteiro em propaganda de OTC com humor. Um experimento com consumidores reais foi desenhado como *between-and-within-subjects*, para testar três hipóteses. Sessenta mulheres foram expostas a pares de TVCs com e sem humor, para três categorias de medicamentos (analgésicos, vitaminas e laxantes). Foram utilizadas marcas fictícias e propagandas reais, e avaliadas quatro variáveis dependentes: atitude em relação à propaganda (A_{AD}), atitude em relação à marca (A_{BR}), intenção de compra (PI) e escolha da marca (BC), após os participantes serem expostos a manipulações de duas variáveis independentes: comerciais de TV com vs. sem humor, para as categorias de medicamentos. O modelo logito condicional confirmou que humor não ajuda a persuadir os participantes, que indicaram escolhas, atitudes e intenções de compra menos favoráveis para TVCs com humor, em comparação com os filmes sem humor. Pesquisas futuras são recomendadas com relação ao tema marketing de produtos farmacêuticos.

Palavras-chave: 1. Medicamentos – Propaganda. 2. Humor na propaganda. 3. Propaganda pela televisão. 4. Comportamento do consumidor – Pesquisa – Experimento.

SUMMARY

LIST OF ILUSTRATIONS

FIGURES

TABLES

1. INTRODUCTION

This initial chapter presents the theme of this thesis, the research problem and its relevance, as well as the overall structure of this document.

1.1. THEME

> "Humor has no place in advertising. People do not buy from clowns."
> *Claude Hopkins, Director of Lord & Thomas Agency, 1923.*

> Five years later:
> "Ironically…Lord & Thomas was instrumental in ushering in the era of humorous radio advertising."
> *Gulas and Weinberger, 2006.*

Eighty years have passed since the Lord & Thomas conflict about the effectiveness of humor in advertising occurred, and yet the controversy remains. When, for what type of products, and how to use humor effectively in advertising? Would humor be beneficial to build brands for selected product categories, such as *pharmaceuticals*?

Despite having more doubts than answers, the pharmaceutical industry is increasingly investing more in humorous advertising every year. Pharmaceutical advertising in the USA has grown rapidly from $40 million in 1989 to $2,5 billion in 2002 (Roth 1996; Bittar 2003), and reached $4,8 billion in 2006 (Pharmaceutical Research and Manufacturers of America – PhRMA). A significant amount of that is invested in non-prescription drugs, internationally called "over-the-counter" (OTC), due to its availability in self-service shelves of pharmacies, allowing consumers to freely purchase them without a medical prescription. Between 10 and 30% of the all advertising expenditure in the American national media is made in advertisement intended to be humorous (Weinberger et al. 1995). In spite of this, it remains unclear whether humor has either a positive, neutral, or negative impact on consumer attitude toward the advertising (A_{AD}), attitude toward the brand (A_{BR}), purchase intention (PI) and other communication indicators (Weinberger et al. 1995).

Humor has been extensively used to promote products within most consumer goods categories (Weinberger and Gulas 1992) and utilized in all media vehicles, such as television, radio, theaters, printed ads in magazines, newspapers, billboards, the internet, etc. Advertisers continue to believe that humor has a positive impact on enhancing audience attention, as stated by Sternthal and Craig (1973), which is very positive for television commercial films (TVC). This belief is shared by executives from American advertising agencies (Madden and Weinberger 1984) and confirmed by Brazilian creative directors, as per interviews conducted by the present author in 2010.

In some product categories, and depending on copy executional aspects, humor proved to be an effective tool while for others, its use reduced communication performance (Spotts et. al 1997). Most findings in the literature agree that some products categories, including non-prescription drugs, should not use humor and rather, should focus on "serious" copy strategy (Spotts et. al 1997).

Gulas and Weinberg (2006) summarized several product typology frameworks from different scholars (Vaughn 1980:1986; Ratchford 1987; Rossiter, Percy, and Donovan 1991; Wells 1989; Weinberger, Campbell, and Brody 1994), categorizing most consumer goods according to two dimensions: functionality and risk. Functionality distinguishes products between its functional (rational, informational) values from its hedonic (emotional, transformational) values, while the low-versus high-risk dimension is defined by product category involvement, associated cost, or how consumers process advertising information.

Within this framework, products such as OTC were categorized as goods with perceived low-risk and functional characteristics. Humor utilization in advertising for these products remains controversial, and does not necessarily help major performance indicators. The meta-analysis published by Eisend (2009) indicated that humor should not provide any advantage for such category of products.

Even taking into consideration these findings, many announcers continue to use humor to advertise OTC drugs in television all over the world. Therefore, this research aims to further evaluate whether OTC brands are benefited, or not, when humor is used in TVC campaigns,

in order to shed some light on this specific controversy in academic literature and in the management field.

1.2. OBJECTIVES AND RESEARCH QUESTIONS

The main question that this research intends to answer is whether humor utilization in television advertising is effective for OTC drugs among consumers, in terms of: i) *brand choice* (BC), ii) *attitude toward the advertising* (A~AD~), iii) *attitude toward the brand* (A~BR~) and iv) *purchase intention* (PI).

Among OTC products, there are several categories, such as antacids, laxatives, analgesics, dermatologicals, vitamins and cough/cold products. Although all of these drugs may be used without a medical prescription, it is reasonable to assume that they may have different perceptions in consumers' mind according to the therapeutical relevance and corresponding pathology to be addressed. In order to evaluate the likely category differences regarding humor impact, three OTC therapeutical classes were selected:

- **Analgesics**
- **Laxatives**
- **Vitamins**

These categories were chosen to represent different pathologies and symptoms severity. Analgesics are used to treat relatively serious medical conditions such as headaches, back or body pain; on the other hand, laxatives are indicated for intestinal constipation, considered a lighter therapy because when consumers feel such discomfort, they also have the option to adjust their dietary habits, by consuming yogurt, fruit, or even a "natural" OTC drug. In between these two categories, there is the vitamins class, a kind of neutral therapeutical group, indicated as a food supplement or an energy booster.

Thus, the *general objective* of this research is to:

> **understand the influence that humor in television advertising has on consumers' brand choice (BC),**

> **attitude toward the advertising (A_{AD}), attitude toward the brand (A_{BR}), and purchase intention (PI), for three OTC categories: analgesics, laxatives, and vitamins.**

Thus, the *specific objective* of this research is to evaluate consumers' acceptance of humor in advertising for analgesics, laxatives, and vitamins categories. Within this research framework, the research questions to be answered are:

> **1st Question: Does humor work in advertising of pharmaceutical products?**
> **2nd Question: Are there differences between humor impact on advertising of analgesics, laxatives, and vitamins drugs?**

The answers to these questions will be supported by the tests of hypotheses which will be further detailed in Chapter 3.

1.3. RELEVANCE

This research problem has a scholarly interest since there are no studies about humor in OTC drugs advertising in Brazil. Even in the world, the few studies utilizing OTC drugs were performed with printed media and sample groups composed of graduate or post-graduate students, instead of real consumers, which strongly limit their findings and conclusions (Eisend 2009). Thus, by using real consumers, this study may also contribute to the marketing field in general.

The problem has also managerial implications, especially considering over US$300 million are invested in OTC drug advertising in Brazilian television every year (IBOPE 2008) and a relevant portion of ads use humor in their copy strategies.

From the public policy perspective this research may also bring some helpful reflections. Pharmaceutical product advertising has to comply with strong regulatory constraints all over the world, due to the risk of side effects. Even though the use of humor is accepted in most countries, neglecting that its use may reduce the informational aspects of TV ads and could, consequently, drive consumers to non-responsible self-medication.

Primarily OTC advertising is focused on the *branding* concept, with the main objective of establishing the brand name associated with its therapeutical indication in the minds of consumers. In a study conducted in Brazil, 52% of OTC printed advertising didn't bring any rational appeal, just emotional approaches (Huertas and Urdan 2004). Usually humorous OTC ads do not contain any educational or scientific message regarding the associated pathology, drug mechanism of action or medical conditions of when and how the product should be taken. Those copy strategies come from advertisers' beliefs, based in their practical experience, that humor enhances audience attention and should help to build brands and increase sales.

But if humor does not work, announcers may be directing their messages with low-effectiveness and, worse than that, losing the opportunity to improve consumers' education regarding the products they are trying to sell. This research, designed to better understand how consumers react to humorous OTC drug ads, can hopefully bring knowledge to the limited theory in the field, while contributing to improve advertising content and sector regulation.

1.4. THESIS STRUCTURE

This thesis is structured in five chapters: the first is this introduction chapter; the second, presents the literature review about the theme, which includes humor concepts, classifications, and its use in advertising; then it summarizes the OTC environment and concludes by presenting the hypotheses to be tested; the third chapter describes the method, with the explanation of the chosen technique to conduct this research, i.e. an *experiment* with consumers, sample collection and the list of variables to be analyzed; then, it explains the *logit* model to be used for brand choices, as well as the scales utilized to measure the variables; chapter 4 discusses the empirical research results and its statistical analyzes and conclusions gathered from the pooled data bank; this thesis ends in chapter 5, where general conclusions are mentioned shedding light on their academic and managerial implications. Also in this final chapter, current research limitations and suggestions for future studies are included.

2. THEORETICAL BACKGROUND

This chapter presents a review of the academic literature about humor, its concepts, classifications and its use in advertising. Then it goes on to explaining the OTC environment and concluding with the research hypotheses.

2.1. HUMOR CONCEPTS

Humor is a complex phenomenon, being the object of studies since the beginning of civilization. The first writings about humor can be traced back to Plato and Aristotle, twenty-four hundred years ago. Outlining a simple and clear definition of humor is not a trivial exercise. From the dictionary, humor is defined as "(1) The quality of being laughable, or comical; funniness. (2) Something designed to induce laughter or amusement" (American Heritage Dictionary 1978).

Several theories tried to conceptualize humor and to define when and why it occurs, most of them coming from Psychology, Medicine, Sociology, and Linguistic fields. All theories have a significant gray area of intersections and are not mutually contradictory. They may differ regarding humor definition, mechanisms, and classification but all lead to similar conclusions. As the intention of this research project is to analyze humor in advertising, only a brief historical perspective analysis and overall knowledge of humor theories will be made.

Humor associated with superiority and disparagements has a long history of proponents dating to Plato, Aristotle, and Hobbes, with the presence of a winner and a loser. Freud (1960) also studied humor and focused his discussions on the differences between what he defined as the wit and the comic: while the wit requires three persons, the comic requires only two; the comical is an unintentional discovery in the social relations of human beings, often aggressive or hostile. The release of painful emotions and tensions that produce pleasure are correlated with humor. Thus, Freud did not study humor in such a broad sense as did other scholars (Gulas and Weinberger 2006), but his theory had a historical relevance. According to Gulas and Weinberg (2006), current theories of humor fall into three broad categories, each one formed by dozens of variations, as follows:

- Cognitive-perceptual (including the incongruity theories),
- Superiority (affective-evaluative theories),
- Arousal and Relief (including psychodynamic theories)

Cognitive theories date back to the 1700s and early 1800s and were developed by Kant (1790) and Schopenhauer (1819), as explained by Gulas and Weinberger (2006, 23), focusing on incongruities. According to these theories, humor comes from the divergence of expectations and the greater the variations, the funnier the material. Surprise, confusion, and contrasts are the basis of the incongruities and the consequence of humor. Raskin (1985) further conceptualized humor based on cognitive-perceptual processes when he stated that contrasts can arise from expected and unexpected, actual and non-actual, normal and abnormal, and possible or plausible and impossible or less plausible situations.

Despite this fact, the debate remains if whether incongruity can be humorous alone or if it needs something else, such as a resolution to the incongruity or a relief in order to work, it is clear that the association incongruity-resolution (IR) is stronger (Suls 1977). This humor sustained by the IR mechanism is still the most utilized in advertising, in particular in television ads (Speck 1991).

Superiority theories also called *Disparagement*, started with Plato, Aristotle and Hobbes, for whom the cases of laughter are correlated with derision, insolence, or triumph. In this theory there is always a winner and a loser in a humor situation (Gruner 1997). While several scholars today still defend superiority, hostility, ridicule, or degradation as concepts of humor, this theory does not explain all the humor cases, especially considering that superiority is not always involved. In advertising, it is not difficult to find examples of superiority and disparagements utilization but this kind of humor is not present in the majority of the ads: Spotts et al. (1997) found 8% in printed media and Speck (1991) 30% in television advertising. Thus, we can assume there are other humor mechanisms more frequently seen and used in advertising, such as that of incongruities.

Arousal-Safety or *Relief* theories have, as a common link, the existence of a physiological release in which humor helps to eliminate tension, a kind of safety valve (Spencer 1860). Morreall (1983) summarized the relationship between arousal-safety and other theories:

"While superiority theory focuses on emotions involved in the laughter, relief theory addresses a question little discussed in the other two theories, namely: Why does laughter take the physical form it does, and what is its biological function?" Thus, we can assume that relief may exist in both, incongruities and superiority theories.

There is a debate about the level of arousal that is recommended, with some defending that there is an upper limit while others speculate that the bigger the arousal the bigger the humor. Speck (1987) found that 36% of humorous ads on television employed arousal-safety mechanisms.

The three theories coexist pacifically and humor is able to navigate through them all, without discontinuities. The new theory of laughter, postulated by Morreall (1983), is an attempt to integrate these three theories. According to him, three general factors form the basis of a comprehensive theory: i) a change of psychological state with a shift in cognition, from serious to non-serious state, and/or in effect, a boost of positive feelings, or just releasing suppressed ones, ii) this shift must be sudden and be able to catch the subject off guard, and finally, iii) the shift must be pleasant. Under these conditions, a feeling of amusement or mirth should be the end result, with or without laughter (Morreall 1983). Thus, it is not enough to have a change in cognition or effect; it must also be sudden and pleasant. According to Morreall (1983), incongruities, superiority or disparagements, and arousal-safety or reliefs mechanisms, all acting together, are needed to generate effective humor.

Gulas and Weinberger (2006) developed a model that summarizes the way in which the three humor theories and their outcomes are connected, also including the five moderators of humor: *audience, product type, message, media,* and *context*, as depicted in Figure 1. In this model, incongruity, arousal and disparagement have a common impact: the *challenge*, in which facilitating conditions generate humor responses and outcomes. This concept of challenge refers to the audience or to a target for the humor, varying in the three processes of humor. The humor mechanisms are valid explanations and are generally used in combination (Gulas and Weinberger 2006). This research studied the moderator *product type*, specifically the OTC drug categories, while others factors such as audience, message, media, and context were constant and controlled, as detailed in chapter 3.

Figure 1. The Challenge Model of Humor

Humor mechanism	Challenge	Facilitating conditions	Humor Response	Outcomes

Incongruity Arousal-Safety Superiority → Challenge → [Play Signals, Arousal, Familiarity, Surprise, Receptivity] → Mirth / No Mirth → Cognitive Reaction, Conative Reaction, Affective Reaction

Audience Factors, Media Factors, Product Factors, Context, Message Factors
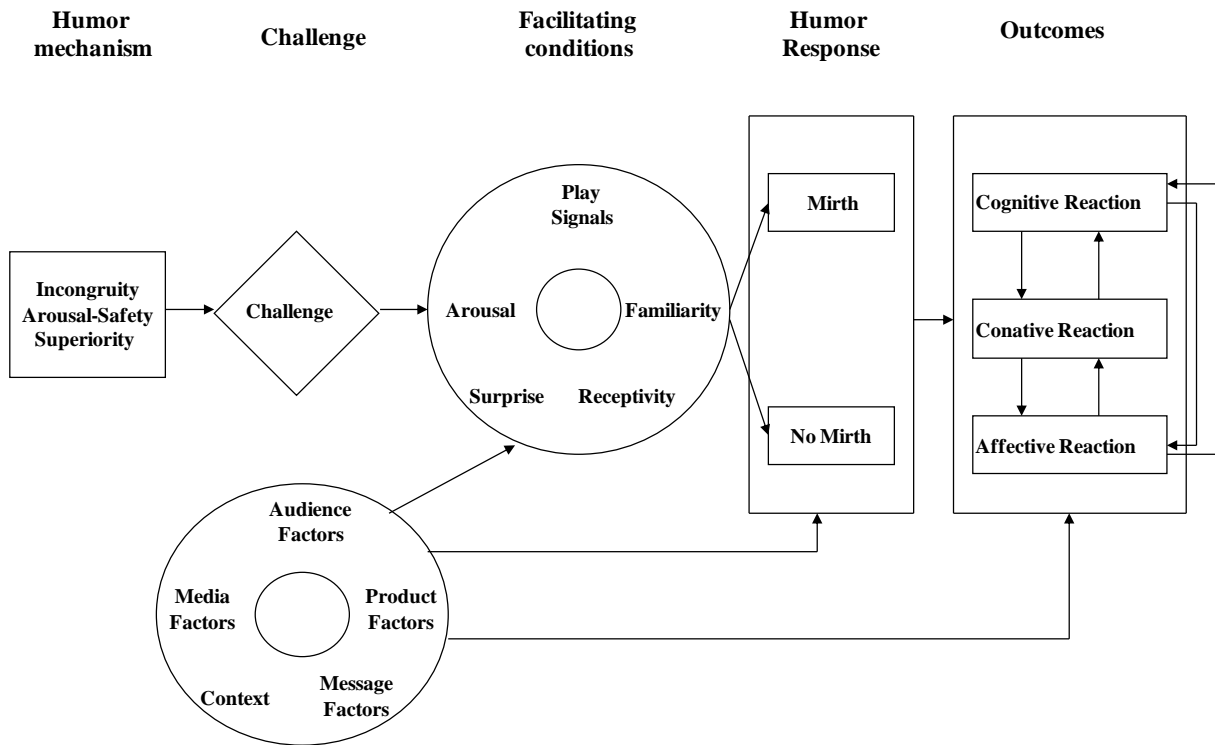
Source: Gulas and Weinberger 2006.

2.2. HUMOR CLASSIFICATIONS

Humor can be classified in many ways and its classification is useful in order to understand its impact on advertising. Freud (1960), for instance, classified humor from pleasure obtained from wit as tendentious and non-tendentious. If a message is tendentious, its execution relies on aggression or on a sexual focus. A non-tendentious message would therefore be more playful, based on absurdities or nonsense. Goldstein and McGhee (1972) surveyed humor types in academic papers and classified it in the Freudian categories: aggression, sexual, and incongruent. In advertising, aggressive or sexual humor are barely used while incongruent humor is predominant (Madden and Weinberger 1982).

Kelly and Salomon (1975) created another humor classification and defined six new types: (1) *pun*, the humorous use of a word or phrase with two interpretations, (2) an *understatement*, representing something as less important than is the case, (3) *joke*, speaking or acting without seriousness, (4) *ludicrous*, a blend of laughable and ridiculous, (5) *satire*, based on sarcasm, and (6) *irony*, words expressing the opposite of what one really means. Based on this

9

classification, a couple of studies classified humorous TV ads in the USA and in the UK and concluded that ludicrous was the preferred by announcers, followed by satires (Gulas and Weinberger 2006).

Speck (1991) created the taxonomy of humor with five types, based on combinations of incongruity, disparagement and arousal-safety concepts: *comic wit, sentimental humor, satire, sentimental comedy* and *full comedy.* He also evaluated the frequency of use of each humor type and its perceived humorousness based on a sample of 335 ads aired by the CBS, an American TV channel, during one week of primetime programming in the fall of 1984, as illustrated in Table 1.

Table 1. Five Humor Types from Combining Three Basic Humor Processes

Humor Types	Arousal-Safety	Incongruity-resolution	Humorous Disparagement	Perceived Humorous (in %)	Frequency of Use (in %)
Comic wit		X		55	21
Sentimental humor	X			30	11
Satire		X	X	53	17
Sentimental comedy	X	X		60	28
Full comedy	X	X	X	75	22

Source: Adapted from Speck 1991.

In order to achieve a specific type of humor, different processes occur and specific humor combinations are involved. One example is comic wit, where only the mechanism of incongruity-resolutions occurs (Speck 1991). Humor classification framework is important to move on toward humor applied in advertising.

2.3. HUMOR IN ADVERTISING

Although billions of dollars are invested in humor advertising in marketing spending every year, uncertainty about its effectiveness remains a discussion point on the table (Spotts et. al 1997). Among the many reasons for the unclear role of humor in advertising copy strategy, one is the difficulty found in conceptualizing this construct and its effects (Spotts et al. 1997), as humor is a multifarious concept that is influenced by a variety of factors (Weinberger and Gulas 1992).

Advertisers are intuitively using humor for most product categories, based on the fact that there is a link between humor and attention value attributed. Sternthal and Craig (1973) stated that humor not only attracts attention but also enhances source credibility, which when linked with positive mood, may increase persuasiveness. In a survey conducted among creative and research directors from the top 150 American advertising agencies, there was a consensus that humorous TVC are better to gain attention than non-humorous executions (Madden and Weinberger 1984); this belief is shared by Brazilian creative directors from three big agencies, as per interviews conducted by the present author in 2010. As trade-offs, humor may affect comprehension, distract the audience and fail to bring increased persuasion and purchase behavior when compared to serious appeals (Sternthal and Craig 1973).

Weinberger and Gulas (1992) evaluated the main studies to date regarding the impact of humor in advertising metrics and documented the controversial effectiveness of their results. Their paper concluded that humor attracts attention, enhances liking, does not harm comprehension, does not enhance credibility, and does not appear to increase persuasion or purchase behavior versus non-humor executions. Another conclusion was that humor appears to be more appropriate for low-involvement and feeling-oriented products. Therefore, their review pointed to some contradictions with Sternthal and Craig (1973), as frequently happens in humor literature.

Another research conducted by Main, Argo, and Huhmann (2004) about prescription/non-prescription pharmaceuticals and printed advertising, confirmed that humor is largely used and attracts consumers' attention. Spotts, Weinberger and Parsons (1997) studied humor effectiveness in printed ads using a conceptual framework adapted from Speck (1987), evaluating the humor mechanisms utilized and the type of product being advertised. They concluded that current advertising practices may not be the most effective and, for several products humor may result in negative performance.

In a trial to understand how humor is processed by consumers, Cacioppo and Petty developed the Elaboration Likelihood Model - *ELM*, published in a series of studies (see, e.g., Cacioppo and Petty 1984). ELM is a theory on persuasion that was helpful to explain how humor works in advertising, an area of significant interest for researchers over the last 30 years. This model argues that two routes to persuasion exist in the consumers' mind: one *central* and the other

peripheral. The central route predicts that when people are *motivated* to think about a message due to their involvement with the product category or message relevance, and are *able* to think about it if the message is easy and understandable, they will cognitively elaborate on the ad and its claims, i.e. think about it and consequently, they can be persuaded by relevant claims (Beard 2008).

The peripheral route predicts that people may still be persuaded even if they are not motivated or are unable to process the information and arguments presented in the ad. If a person already has positive attitudes about something, message elements not related with the product, called *peripheral cues*, can be used to relate these positive attitudes toward the ad and the brand, provoking a weaker and more temporary persuasion. This is the case of ads using celebrities, enjoyable music, attractive models, and so on. Humor works in the same direction, encouraging lower levels of cognition and elaboration, reducing defenses and leading to persuasion (Beard 2008).

Another study from Chung and Zhao (2003) focused the effect of humorous ads on memory and attitude, evaluating Super Bowl commercials aired during the years 1992 to 1997; they concluded that there is a strong positive relationship between humorous advertisement, brand recall, and attitude toward the ad. The authors also concluded that for low-involvement products this positive relationship was stronger, while for high-involvement products, this relationship was small and marginal. The authors explained these results on the basis of ELM and peripheral cues, which seem to work better in low-involvement situations. As a consequence of ELM theory, humor effect is most clear and effective in low-motivation and low-ability product situations, where peripheral cues are activated in the consumers' minds.

Behaviorally oriented product typologies have been developed over the last 20 years classifying products according to their ELM explanations. Since Vaughn (1980), but also passing through Ratchford (1987), Rossiter, Percy, and Donovan (1991), Wells (1989), Weinberger, Campbell, and Brody (1994), and Spotts et al. (1997), product grids were developed to classify consumer goods, supported by two dimensions, apart from the slight differences in terminologies utilized: *functionality* and *risk*. Functionality distinguishes products between their functional (think, rational, informational) values from their hedonic (feel, emotional, expressive, transformational) values. The risk dimension defines low- versus

high-risk situations, and distinguishes product category involvement, associated cost, or whether consumers are able to process, or not, advertising information (Gulas and Weinberger 2006).

As examples of this taxonomy, the study of Lord and Putrevu (2009) classified four consumer goods in informational and transformational categories. Their methodology to evaluate the role of celebrity endorsement, a different arena but in some sense similar to humor attention grabbing, used the Rossiter-Percy Grid and named as informational, microwaves and *aspirin* (OTC drug), and transformational, designer jeans and chocolate bars. Following this mainstream of product typology, Gulas and Weinberger (2006) created a framework called the Product Color Matrix (PCM), classifying most consumer goods in four color groups, as follows:

- "white goods" for bigger tools,
- "red goods" for bigger toys,
- "blue goods" for little tools,
- "yellow goods" for little treats.

The authors compiled most features that characterize each color category to orient product classification, as shown in Table 2. According to this framework, and also the alignment with Ratchford (1987) and Spotts et al.´s (1997) classifications, the OTC remedies were classified within the category *blue goods* or *little tools*, consumed to alleviate minor ailments.

Table 2. Product Characteristics within the Cells of the PCM

Product Color	Product Risk	Purchase Motivation	Consumption motives	Emotional benefits	Motivation to process	Focused attention	Processing Style	Product type
White "big tools"	Higher	Negative	Functional/ rational orientation	Some/ long-term	Higher	High	System	Durable/ shopping
Red "big toys"	Higher	Positive	Expressive orientation/ usually conspicuous	Many/ long-term	Higher	High	Systematic	Durable-nondurable/ often luxury
Blue "little tools"	Lower	Negative	Functional/ rational orientation	Few to none/ short-term	Low to moderate	Low	Heuristic	Nondurable/ staple
Yellow "little treats"	Lower	Positive	Expressive orientation/ may be conspicuous	Some/ short-term	Low	Low	Heuristic	Nondurable/ often impulse

Source: Gulas and Weinberger 2006.

In complement, Gulas and Weinberger (2006) published a summary of goods prototypes, as examples for the classification in their PCM, under the axis of functional vs. expressive and higher vs. lower risk to define each quadrant, as shown in Table 3. The OTC remedies were confirmed as belonging to the blue goods category.

Another study from Putrevu and Lord (1994) confirmed that OTC drugs are blue goods; they evaluated comparative and non-comparative advertising and its attitudinal effects, based on cognitive and affective involvements. By using a fictional *cold remedy* (OTC) in the research, they argued that this product obtained scores which confirmed it with a high cognitive involvement, yet with a low-affective involvement. Nevertheless, the classification of OTC drugs as low-involvement was not demonstrated in other studies and the controversy remains. Gore, Madhavan, Clung, and Riley (1994) studied the OTC involvement construct through an e-mail survey with 458 respondents and concluded that there is a "moderately high degree of involvement in non-prescription medicine purchase decision".

Table 3. The Product Color Matrix (PCM) and Prototype Products

Consumer Objective	Functional / Tools	Expressive / Toys
Higher risk	**Cell 1 "white goods"** **Bigger tools** Large appliances Typical cars Business equipment Insurance Auto tires	**Cell 2 "red goods"** **Bigger toys** Fashion clothing & acces. Hair coloring Motorcycle & Sports car Fashion luggage Jewelry
Lower risk	**Cell 3 "blue goods"** **Little tools** Detergent and household cleaners OTC remedies Motor oil and gas Most non-dessert foods	**Cell 4 "yellow goods"** **Little treats** Snack food Desserts Beer Alcohol Tobacco products

Source: Gulas and Weinberger 2006.

Spotts, Weinberger, and Parsons (1997) established the predecessor of this color product matrix concept thought a sample of 470 magazine ads, utilizing humor and its effectiveness. They concluded that for blue goods, humor reduced score performance for initial attention and aided in brand recall. Their explanation of the negative findings was that consumers are

not highly involved, so the advertising must provide quick information how the product solves their problems or the ad page will be turned.

Spotts et al. (1997), as several other scholars, classified humor in his research as per the association or not with the advertised product. This concept, called *relatedness,* is a classical construct, since intuitively it is expected that related humor may be more effective. Relatedness was classified by Speck (1991) in three types: *intentional, structural* and *thematic*. Spotts et al. (1997) stated: "Speck´s treatment of relatedness is rooted in literary theory and semiotics and is the most comprehensive in the advertising literature. Our study pertains to the first of the constructs, *intentional relatedness* or dominance of humor in the message. Intentional relatedness regards how humor is related to the message type and message processing."

Humor performance for blue goods resulted in significant negative correlations, harming advertising performance, while for yellow goods its use was highly effective (Spotts et al. 1997). The blue goods category represents products with perceived low-risk, low-involvement, and functional dimensions, which is the apparent case of OTC remedies, and where the use of humor in advertising would not be advisable (Spotts et al. 1997).

Beard (2008, 111) advocates that if persuasion is defined as purchase intention (PI), then humor seems to affect it by first causing consumers to like or dislike the ad itself, influencing the attitude toward the ad (A$_{AD}$); liking or disliking the ad, in turn, would cause people to like or dislike the brand, affecting attitude toward the brand (A$_{BR}$); then, A$_{BR}$ would impact purchase intention (PI) and subsequently brand choice (BC) probability. Figure 2, shown below, summarizes the relation between the constructs.

Figure 2. Humor Impact on OTC Advertising
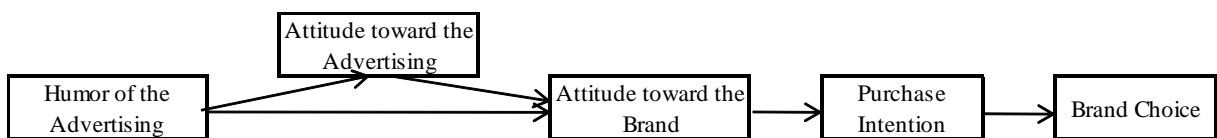
Source: adapted from Beard 2008.

Eisend (2009) confirmed in a meta-analysis that humor does not provide any advantage for blue goods, in line with the findings of Spotts et al. (1997), in both cases of related or unrelated humor. In his evaluations of the main studies to date, several of them in the

television advertising field, reached negative correlations between humor and attitude toward the brand (A<small>BR</small>) for blue goods, not following Beard (2008) model. Eisend´s evaluations go beyond blue goods and emphasize the literature gap regarding the role of humor in purchasing behavior; it also criticizes the limitations of previous studies, since most of them use students instead of real consumers, and printed media, less adequate than radio or television for humor ads (Eisend 2009).

From Ethnography, another stream of marketing literature, it is well-known that traditional surveys, that is, just asking consumers about their opinion on products or services, may fail in obtaining correct answers, since respondents' attitudes may be governed by the impressions they are trying to make upon the researcher (Mariampolski 1999). A cognitive result would be predicted by the ethnography stream and requires further evaluation, as proposed in this current research. Thus, the role of humor in OTC drugs advertisement is an area which needs to be experimentally, and not only cognitively, addressed to better understand consumers' information processing.

2.4. OTC MARKET

Pharmaceuticals represent a special class of goods, especially considering most are not chosen directly by consumers, but rather, prescribed or recommended by Physicians. Usually, a consumer makes an appointment with a doctor to relate a medical complaint, or to undergo preventive examination. In both cases, it is frequent that the Physician prescribe one or more drug to the patient that will generate sales without any kind of *Direct-to-Consumer (DTC)* advertising. All the classical marketing tools: product, promotion, price, and point-of-sale are not influential in this model. Physicians bring a significant distortion to this product category, and for this reason, they become the marketing focus of the pharmaceutical industry.

Nevertheless, this basic model is not 100% prevalent. It is becoming every day more frequent that patients approach their Physicians with a reasonable knowledge of their diseases and alternative drugs for their treatments. Patient knowledge may be generated by previous brand experience, through recommendations of other doctors or pharmacists, books, magazines, the internet, and, less scientific means, such as DTC advertising, as well as recommendations from relatives or friends.

In the USA, it is possible to promote pharmaceuticals DTC, either for prescription as well as for non-prescription drugs. This is not the case in Brazil, where DTC advertising is not allowed for prescription drugs. According to national regulations, only non-prescription drugs can be communicated by brand names and claims through DTC advertising. OTC drugs are present all over the world, freely sold at drugstores without medical prescription, and in the vast majority of countries they are allowed to go DTC under a varied set of regulatory constraints. The regulatory environment is a complex and controversial area, since many players advocate that any pharmaceutical drug may induce side effects, which is true. Therefore, they argue that all kinds of drugs should only be taken under medical recommendation, and that OTC drug advertising should not be permitted, since it may increase misuse and abusive consumption.

In spite of this, OTC drugs have a long tradition of existence, and are allowed DTC advertising. In addition, they play a key role in any medical care system, as being able to buy and use OTC drugs may allow a bulk of patients to cure their minor ailments, through using a drug with a relatively safe profile of side effects, and contributing to reduce the overloaded healthcare system, as it reduced the need for medical visits. If after a few days taking an OTC remedy the patient's symptoms are not reduced, then a visit to a Physician is recommended for further investigation.

Based on this health care implication, the *World Health Association* (WHO) accepted and recommended the use of OTC drugs, orienting citizens to treat their own symptoms and minor ailments with non-prescription drugs, dully approved by national regulatory agencies, and taking into consideration the efficacy and safety profiles of the OTC drugs at hand. In most developed countries and also in Brazil, the classification of drugs in the OTC category is quite homogeneous with minor variations. Usually, OTC drugs belong to the six broad therapeutical classes below:

- Analgesics – headache, pain killers, anti-fever drugs, muscle relaxants;
- Cough and cold – preparations to treat cough, cold and flu;
- Gastrointestinals – laxatives, antacids, anti-flatulents, anti-hemorrhoids;
- Vitamins – multivitamins, vitamin C, vitamin E, vitamin B complexes;
- Dermatologicals – creams, emollients, wound healings agents;
- Others – several others, as remedies to cease smoking, reduce weight.

OTC sales in Brazil represented 35% in units (number of packages) and 29% in value of the pharmaceutical market, measured in the 12-month period from Oct/2009 to Sep/2010 (IMS Health). The total market of drugs in pharmacies was $19,6 billion in this period, including OTC sales of $5,6 billion, which ranks Brazilian OTC market among top 10 in the world.

OTC drugs advertising in Brazil is regulated by the Government, with laws and guidelines, establishing clear limits for the claims and statements utilized. Humorous advertising for OTC drugs is permitted and is heavily utilized by announcers, mainly in TVCs. In a survey conducted by the present author about analgesic and laxative TVCs aired in Brazil, during the years 2000 to 2009, from Arquivo da Propaganda data bank, resulted: 21 (47%) out of 45 analgesic and 9 (50%) out of 18 laxative campaigns were intended to be humorous.

The regular use of humor in OTC drugs is a pattern also present in a number of countries. Since OTC drugs are a relevant market segment and humorous TVC advertising is a common business practice, even without a solid academic or managerial background, this research aims to focus on this intriguing subject, through an experiment to shed some light on its discussions and comprehension.

2.5. HYPOTHESES

Based on Spotts et al. (1997), Gulas and Weinberger (2006), and Eisend (2009), humorous ads should not be as effective in comparison with non-humorous ads for the blue goods category. Thus for OTC remedies, it is expected that consumers tend to prefer drugs advertised through non-humorous TVCs. This could possibly explained by the fact that consumers consider OTC drugs as little tools, considering funny approaches inappropriate to specific product characteristics, as well as to their medical conditions . So, the first hypothesis, for any OTC drug category, is:

> **H1: Consumers choose OTC drugs advertised through non-humorous TV commercials, when compared with those advertised through humorous TV commercials.**

In line with this preference, the metrics A_{AD}, A_{BR} and PI will present lower scores when the OTC drug TV commercial utilizes humor in the advertising. Thus, the second hypothesis is:

> **H2: Humorous advertising produces less favorable consumers'**
> > **H2a: attitude toward the advertising (A_{AD}),**
> > **H2b: attitude toward the brand (A_{BR}), and**
> > **H2c: purchase intention (PI),**
> **for OTC drugs, when compared with non-humorous advertising.**

To better understand consumer behavior regarding OTC drugs, three product categories were studied, as seen in previous chapters: analgesics, laxatives, and vitamins. Since pain is considered a *serious* medical ailment by suffering consumers, it would be expected that analgesic humorous ads would face a significant reduction of A_{AD}, A_{BR}, and PI scores in comparison with non-humorous copies. For laxatives, once they should be considered less serious and sometimes a "fancy" category by consumers, it would be expected that humorous ads provoke smaller reduction of A_{AD}, A_{BR}, and PI, in comparison with analgesics. Finally, for vitamins, as an intermediary class, their A_{AD}, A_{BR}, and PI scores are expected to be reduced in comparison with analgesics, equivalent to laxatives. Thus, the third hypothesis, not supported by the literature, but based in presumed consumers' behavior, is:

> **H3: Humorous advertising produces less favorable consumers'**
> > **H3a: attitude toward the advertising (A_{AD}),**
> > **H3b: attitude toward the brand (A_{BR}), and**
> > **H3c: purchase intention (PI),**
> **for *analgesics*, when compared with humorous advertising for *laxatives* or *vitamins*.**

The description of the variables and the models to make the hypotheses tests viable are detailed in the next chapter.

3. METHOD

This chapter describes the method employed in this research, divided in four sessions: the first details the variables and the design of the study; the second explains the sample and data collection process; then, session three is devoted to the experimental brand names and television commercials (TVCs) utilized in the research; and finally, the last session details the procedure used in the experiment.

3.1. VARIABLES AND STUDY DESIGN

The study was performed as an experiment, having as *Independent Variables (IV)* the humorous and non-humorous TVCs for three OTC categories: analgesics, vitamins, and laxatives; thus, for each category, one humorous and one non-humorous execution were tested. The *Dependent variables (DV)* were brand choice (BC), attitude toward the advertising (A$_{AD}$), attitude toward the brand (A$_{BR}$) and purchase intention (PI).

The factorial design of the experiment was 2 *(humor: yes vs. no, between-subjects)* by 3 *(drug categories: analgesic, laxative, and vitamin, within-subjects)*.

The within-subjects design is recommended for this experiment since each subject serves in every treatment, creating more comparable groups and making the test more sensitive (Keppel and Wickens 2004). On the other hand, within-subjects design introduces a nuisance variable, namely the order in which the conditions are tested; this was addressed in item 3.4., through randomly selected TVCs' sequences. The experiment design is summarized in Table 4, where Y_{ijk} represents:

> i = subject number n, being n = 1 to 60;
>
> j = drug category, being 1 = analgesic, 2 = laxative, and 3 = multivitamin;
>
> k = humor of the TVC, being 1 = humorous and 2 = non-humorous.

For each cell Y_{ijk}, the individual scores for A$_{AD}$, A$_{BR}$, and PI were measured and analyzed as quantitative variables. The fourth metric, brand choice (BC), is a categorical variable analyzed using *Logistic Regression*.

Table 4. Experimental Design

TVC	Analgesic		Laxative		Multivitamin	
	humor	non-humor	humor	non-humor	humor	non-humor
subject 1	Y_{111}	Y_{112}	Y_{121}	Y_{122}	Y_{131}	Y_{132}
subject 2	Y_{211}	Y_{212}	Y_{221}	Y_{222}	Y_{231}	Y_{232}
subject n	Y_{n11}	Y_{n12}	Y_{n21}	Y_{n22}	Y_{n31}	Y_{n32}

3.2. SAMPLING

The target population was formed by women, since the vast majority of decisions and purchases regarding OTC remedies are in *mother's* hands, the informally designated person responsible for the entire family healthcare aspects in Brazil (Pachelli 2003). This is similar to USA, where Gore et al. (1994) affirmed that females have a higher involvement than males in non-prescription purchase decisions, attributable to their family care guardian role. The sample was formed by women living in the city of Sao Paulo, Brazil. The TVCs exhibition and subsequent questionnaire were applied individually to prevent any audience effects (Zhang and Zinkhan 1991, Gulas and Weinberger 2006) and to emulate a real world situation, since consumers usually watch television alone, or with a family members.

To ensure sample homogeneity and relevance for the OTC market, the inclusion criteria was women, from social classes B and C (social class criteria are presented in Appendix A), who are mothers, aged between 25 and 50 years old, who had themselves bought at least one OTC drug belonging to the analgesic, laxative, or vitamin categories in the last six months. Consumers were recruited and screened as per the above mentioned criteria and, when inclusion criteria were matched, the consumers were invited to participate in a research about "non-prescription pharmaceutical products", in the market survey company´s office. Subjects were contacted by telephone, selected from the internet telephone list, following a probabilistic protocol, i.e. each subject had a priori known probability to be part of the sample. This proceeding allows for the generalization of the conclusions as well as the application of inference statistical methods (Bolfarine and Bussab 2005). Since the Sao Paulo metropolitan area is huge, consumers were selected from South Zone of the city, to facilitate the transportation to the central location. A financial support of US$15 (R$25) was offered to each subject as part of the transport cost reimbursement.

The sample size was calculated as per the following *assumptions*: the experiment had two conditions of ads (humor: yes vs. no), thus a = 2, significance level α = 0,05, experiment power of 0,80, and the expected effect differences among the ads in the range ω^2 = [0,06; 0,08]. This estimative of ω^2 was based on TVC pre-test results and therefore, as per Keppel and Wickens (2004, 173), the needed sample size is in the interval n = [47; 63], being the adopted *n = 60 women*. To have a significant representation of B and C Economic Classes in the sample, it was decided to recruit exactly 30 women from each class. A total of 570 telephone contacts were performed to achieve this final group of respondents.

3.3. EXPERIMENT BRANDS AND TVCs

Following literature recommendations, the experiment utilized *fictional brand* names and *real ads*. Gulas and Weinberger (2006, 159) made several recommendations about methodological procedures and issues on studying humor in advertising, and regarding the dilemma new vs. familiar brands, they stated: "It is well established in the advertising literature, and understood in advertising practice, that people react differently to new product advertising then they do to advertising for existing products. We can use ads for familiar products, which will carry existing brand image with them and other baggage that will influence the results, or we can use ads for unfamiliar products (fictional products, new products, or out-of-market products), which will influence the results since this is equivalent to new product advertising." Therefore, a perfect solution for this issue does not exist and, for this experiment, new OTC brands where chosen, as they apparently bring less bias to consumers.

Chattopadhyay and Basu (1990) showed that prior brand evaluation plays a fundamental role in consumers' evaluation of humorous ads. When the prior attitude is favorable, the impact on BC, A_{AD}, A_{BR}, and PI are positive, in comparison with non-humorous ads. Conversely, when there is a negative prior attitude, non-humorous ads are more effective. To prevent this effect, expected to be more important for remedies due to their health implications, it was decided that fictional brands would be used in this research. The recommendation to use real ads was supported by Speck (1991), who suggested controlling for extraneous variables by comparing a group of humorous ads against a group of non-humorous ads. In the same direction, Gulas and Weinberger (2006) advocated the use of real ads, since actual captured ads bring a sense of realism to any study.

Having taken the decision to use fictional brands and real ads, the next step was to select *six TVCs* for the experiment. Over 100 TVCs were reviewed from Arquivo da Propaganda data bank, aired in Brazilian television during the years 2000 to 2008, to select the experiment executions. This precaution to use old commercials was to reduce the odds of advertising or brand name recall. The chosen executions were representations of humorous and non-humorous OTC drug advertising, in a trial to make the experiment as close as possible to real advertising practices; the selection guidelines were:

      i)   Humorous TVC - focus on brand name and product indication without therapeutical claims or rationale to use the product, mainly using the incongruity-resolution humor mechanism, within a related humor execution;

      ii)   Non-humorous TVC - brief explanation about the pathology (medical problem), brand presentation as an effective medication (solution) and the rationale to use the product, within a non-humorous execution.

The chosen TVCs with original product names were converted into fictional brands. To be comparable, as suggested by Gulas and Weinberger (2006), the six TVCs had their brand names modified to *equivalent fictional brands*. The edition process was conducted by an advertising agency, with professional artists recording voices over the original scripts and new sound tracks. Thus, six "new" TVCs with fictional brand names, one for each OTC product, were obtained. Table 5 summarizes the fictional brands utilized in the experiment.

Table 5. Fictional Brands

OTC Category	TVC Execution	Fictional Brand
Analgesic	Humorous	ADORPAN
	Non Humorous	ADORPIN
Laxative	Humorous	ZILAX
	Non Humorous	ZOLAX
Vitamin	Humorous	CLEVIT
	Non Humorous	CLAVIT

The common roots *dor*, *lax* and *vit*, were adopted for fictional brands, since they are very usual in Brazilian OTC market; indeed, several real product names utilize these words either as prefixes or suffixes in analgesic, laxative, and vitamin categories, respectively. To increase comparability of executions, the same *pack-shot* and *selling idea*, product image and slogan commonly used at the end of TVCs, which summarize the emotional or functional benefit and link it memorably to the brand name, were applied to each pair of commercials. This was done to ensure comparable TVCs, avoiding different pack-shots or selling ideas effects, as shown in the Appendix B.

TVCs were pre-tested to check if they really complied with above mentioned criteria and could be considered representative of humorous and non-humorous approaches in OTC drug advertising. During the experiment, the six TVCs were checked again to reconfirm whether they were representative of humorous and non-humorous categories, as part of a *manipulation check*.

3.4. PROCEDURE

When a woman arrived at the research location, as per her appointment, she was taken by the experimenter to a room with a television set. In the room, snacks and soft drinks were available to welcome and provide a warmer atmosphere for the interview subject. Then, the confederate reconfirmed to the interviewee (subject) the purpose of the *research on non-prescription drugs* and applied the first part of the questionnaire. The objective of this initial group of questions was to get to know the usual drugs taken by that consumer in analgesic, laxative, and vitamin categories and the degree of loyalty to actual brands. After this portion, TVCs were sequentially presented to subjects, showing two films for each OTC category, in a total of six exhibitions made to each participant.

The research addressed the concerns about the risks of *first* and *recency effects* and the potential for conscious or unconscious bias, if the order to show the TVCs to subjects were left to the experimenter. To avoid these issues, *randomization* of the TVCs sequence was adopted. The concept of randomness plays a central role in research design and statistical analysis, justifying the applications of the mathematics of probability, when making generalizations from sample statistics to parameters and tests of significance (Pedhazur and

Schmelkin, 1991, 217). Therefore, the confederate promoted a rotation in TVCs order, randomly established as per Table 6 for each group of 12 subjects.

Table 6. TVCs' Presentation Order

Order	Subj. 1	Subj. 2	Subj. 3	Subj. 4	Subj. 5	Subj. 6
1	ADORPAN	ADORPAN	CLAVIT	ZILAX	ZILAX	CLAVIT
2	ADORPIN	ADORPIN	CLEVIT	ZOLAX	ZOLAX	CLEVIT
3	CLAVIT	ZILAX	ADORPAN	ADORPAN	CLAVIT	ZILAX
4	CLEVIT	ZOLAX	ADORPIN	ADORPIN	CLEVIT	ZOLAX
5	ZILAX	CLAVIT	ZILAX	CLAVIT	ADORPAN	ADORPAN
6	ZOLAX	CLEVIT	ZOLAX	CLEVIT	ADORPIN	ADORPIN

Order	Subj. 7	Subj. 8	Subj. 9	Subj. 10	Subj. 11	Subj. 12
1	ADORPIN	ADORPIN	CLEVIT	ZOLAX	ZOLAX	CLEVIT
2	ADORPAN	ADORPAN	CLAVIT	ZILAX	ZILAX	CLAVIT
3	CLEVIT	ZOLAX	ADORPIN	ADORPIN	CLEVIT	ZOLAX
4	CLAVIT	ZILAX	ADORPAN	ADORPAN	CLAVIT	ZILAX
5	ZOLAX	CLEVIT	ZOLAX	CLEVIT	ADORPIN	ADORPIN
6	ZILAX	CLAVIT	ZILAX	CLAVIT	ADORPAN	ADORPAN

After each pair of TVCs exhibition, subjects made immediately their brand choice (BC), answering a dissimulated question: "After the research, which of these two analgesics (or laxatives, or vitamins) would you like to take home to test?" After the presentation of the six TVCs and the three brand choices, subjects answered the questionnaire on attitude toward the advertising (A$_{AD}$), attitude toward the brand (A$_{BR}$) and purchase intention (PI) for each advertised product. In addition, the advertising humor level (H$_{AD}$) had been measured, as a *manipulation check* and to evaluate the TVCs fit to the experiment. The scales to measure these parameters were taken from Bruner et al. (2001), based on the selected articles: the A$_{AD}$ scale was based on the Neese and Taylor (1994) study about comparative advertising with alpha of 0,83; the A$_{BR}$ was based on Putrevu and Lord´s (1994) study on comparative advertising with alpha of 0,87; the PI was also supported by Neese and Taylor (1994) and other studies with alpha of 0,81, and the advertising humor scale was adapted from Zhang (1996), with alpha of 0,91.

Despite the precautions, it was possible that some of the subjects could realize the true intention of the experiment, that is, to evaluate the humor in OTC drug advertising. This was measured through a second *manipulation check* to confirm and quantify its incidence. If it

happened, those subjects should be dropped from the sample. In the last part of the questionnaire, consumers were debriefed about the real academic research objective and some questions regarding the effectiveness of humor in OTC drug advertising were directly addressed to understand the rational and cognitive processes in their minds. Appendix A contains the full questionnaire carried out in this experiment.

3.5. VARIABLES STATISTICAL EVALUATION

In this experiment, the four key Dependant Variables (DV): attitude toward the advertising (A_{AD}), attitude toward the brand (A_{BR}), purchase intention (PI), and brand choice (BC), were measured for the two Independent Variables (IV), used as stimulus for the subjects: types of TV commercials (with or without humor), for the OTC drug categories (analgesics, vitamins, and laxatives). The variable scales were formed by specific questions, with Likert scores from *totally disagree* (score 1) to *totally agree* (score 7). Thus, for each of the two IVs, the three metrics A_{AD}, A_{BR}, and PI were obtained, while BC referred to one selected brand for each drug category, under humorous and non-humorous TVC stimulus. The results for these three quantitative metrics A_{AD}, A_{BR}, and PI were evaluated using SPSS 17.0 software. Brand choices (BC) were evaluated through STATA 7 software, using *logistic regression*, more specifically *conditional logit*.

According to Botelho (2003), the conditional logit model was developed by Daniel McFadden (1974), Economy Nobel Prize winner in 2000, due to his studies about the discretion of consumer's choices. The difference between McFadden´s conditional logit and multinomial logit (MNL) is the fact that the first one considers the effect of the attributes of the alternatives (Maddala 1983, p. 42). In the conditional logit model, the number of parameters needed to estimate the effect of the attributes is equal to the number of K variables (alternative attributes and individual characteristics, including intercepts).

In the conditional logit model, the categories of answers are not in ordinal order, i.e. having 3 alternatives (1, 2, and 3), does not mean 3 is bigger than 2, and 2 is not bigger than 1. Consider Y_i a random variable to indicate the choice made by a consumer. If the P errors are independent and identically distributed (i.i.d.) by Gumbel distributions, thus:

$$F(\varepsilon) = \exp(-e^{-\varepsilon})$$

therefore,

$$P(Y_i = j) = \frac{e^{\boldsymbol{\beta}'\mathbf{z}_{ij}}}{\sum_{p=1}^{P} e^{\boldsymbol{\beta}'\mathbf{z}_{ip}}}$$

refers to conditional logit model, where $\mathbf{z}_{ip}$ is regarding to the vector of exogenous variables ($\mathbf{z}_{ip} = [\mathbf{w}_i \ \mathbf{x}_p]$). Since $\mathbf{w}_i$ contains the specific individual characteristics, their parameters will be the same for all the alternatives. If all independent variables in the conditional logit model are individual characteristics, then the conditional logit model will be exactly equal to the multinomial logit model (McFadden, 1974).

The terms that do not vary among alternatives, i.e., those specific to the subjects, are eliminated from the probability of occurring in the conditional logit model. As such, it is necessary to modify the model in order to allow for the specific individual effects, thought the creation of a group of categorical variables for the alternatives, and the multiplication of each one by $\mathbf{w}_i$, which is common to all alternatives. Therefore, what is done is to allow that the coefficients vary for each alternative, instead of only varying for the individual characteristics (Botelho 2003).

In the present experiment, there are two sets of covariates in its conditional logit regression:

- Choice-specific: A$_{AD}$, A$_{BR}$ (x)
- Chooser-specific: age, instruction, social class (w). What makes w unique? They are constants within choosers (their effects would seem to be inestimable). To obtain chooser-specific effects, interaction variables were resorted to:
- gen agehumor = age* humor
- gen instruchumor = instruc* humor
- gen classhumor =   class* humor

As instruct is a categorical variable, this was divided in 5 classes, with the following variables:

- gen instruc1_humor = instruc1* humor to
- gen instruc5_humor = instruc5* humor

This thesis also used *Odds Ratio* (OR) in brand choices (BC) statistical evaluation. As an example of OR, let's assume that the probability of success of some event is 0,8. Then the probability of failure is 1- 0,8 = 0,2. The odds of success are defined as the ratio of the probability of success over the probability of failure. In our example, the odds of success are .8/.2 = 4. That is to say that the odds of success are 4 to 1. If the probability of success is 0,5 i.e., 50-50 percent chance, then the odds of success is 1 to 1. Detailing further the OR concept:

Assuming that the success likelihood of an event is given by:

$$P\langle p|C_p \rangle = \frac{e^{\mu\beta'z_{ip}}}{e^{\mu\beta'z_{ip}} + e^{\mu\beta'z_{ij}}} = \frac{1}{1+e^{-\beta'z_{ij}}}$$

and the likelihood of a non-success (failure) is given by:

$$P(Y=0) = 1 - P(Y=1) = \frac{1}{1+e^{\beta'\mathbf{z}_{ij}}}$$

then, it can be written that:

$$\frac{P(Y=1)}{1-P(Y=1)} = \frac{1+e^{\beta'\mathbf{z}_{ij}}}{1+e^{-\beta'\mathbf{z}_{ij}}} = e^{\beta'\mathbf{z}_{ij}}$$

representing the odds ratio, i.e. the ratio between the success probability P(*Y*=1) and the failure probability [1-P(*Y*=1)]. The natural logarithm of this ratio is called *logit* (L_i):

$$L_i = \ln \frac{P(Y=1)}{1-P(Y=1)} = \ln e^{\beta'\mathbf{z}_{ij}} = \boldsymbol{\beta}'\mathbf{z}_{ij}$$

The interpretation of this is similar to the Linear Regression one: the coefficient value shows the quantity that the dependent variable (L_i) varies if the independent variable, associated to

the coefficient, varies in one unit, *ceteris paribus* (Gujarati, 2000, p. 560). As an example, in this experiment, in chapter 4, humorous TVCs resulted in a choice coefficient of -1,22 for laxatives; this mean that humorous TVC, *ceteris paribus*, will decrease the natural logarithm in the OR, to choose this brand (in comparison with the non-humorous TVC), by 1,22 or the OR to choose this brand will be reduced to $e^{-1,22} = 0,295 = 29,5\%$.

The negative impact of humor, here mentioned just as an example of Conditional Logit, is detailed in the in the next chapter, with all experiment findings and results.

4. RESULTS

This chapter presents the research results and the statistical tests conducted to draw the inferences. It is divided into four parts: the first refers to the descriptive statistics of the sample; the second part, to the manipulation check of the experiment; part three, looks at the scores' comparison for the dependent variables A$_{AD}$, A$_{BR}$, and PI, plus BC evaluation and conclusions about humor effectiveness in OTC advertising; part four describes the additional parameters and metrics of this thesis; and finally, in the fifth part, the research questions and hypotheses conclusions are addressed.

4.1. DESCRIPTIVE STATISTCS

The summary of the sample description of the experiment is shown in Table 7.

Table 7. Sample Description

	Total Sample	N	%
		60	100%
Social Class	B	30	50%
	C	30	50%
Instruction	No Education	1	2%
	Elementary	6	10%
	Intermediary	2	3%
	High School	37	62%
	College	14	23%
Age	25 to 29 years	16	27%
	30 to 34 years	12	20%
	35 to 39 years	15	25%
	40 to 44 years	6	10%
	45 to 50 years	11	18%
	Statistics (years)	Mean = 35,67	Std. Deviation = 7,18
OTC Users	Analgesics	60	100%
	Vitamins	44	73%
	Laxatives	31	52%

Sampling was precisely balanced between the two Social Classes B and C, all subjects were OTC drug consumers, while Age and Instruction Level was not screened in the enrollment phases.

4.2. MANIPULATION CHECK

This experiment had a manipulation check to verify if consumers realized the different levels of humor in each TV commercial pair; this was a fundamental check, otherwise the entire experiment would not be relevant. Table 8 details the manipulation check, with the different levels of humor perceived by subjects for the three OTC categories, analgesics, vitamins, and laxatives.

Table 8. Manipulation Check: TVC Humor Perception

	Level of Ad Humor		
Humor	**Yes**	**No**	**Signif.**
Analgesics	6,00	4,18	0,000
Vitamins	5,50	4,55	0,001
Laxatives	5,78	3,99	0,000

Table 8 indicates that the means of advertising humor level (H$_{AD}$), in a t-test (2-tailed, with 95% confidence interval) were significantly different, being higher for the humorous execution in comparison with the respective non-humorous ones, in the three OTC categories. Thus, the humor stimulus was perceived by subjects and worked appropriately.

After showing three pairs of TVCs, there was a chance that some of the subjects would realize that humor was the real purpose of this research. Thus, as a complementary action to control the experiment procedure, subjects were asked in Question 19: *In your opinion, what is the purpose of this research?* This question was positioned soon after the DVs data collection process, to avoid rational thinking by the consumers during the main part of the research. Several answers were obtained from the 60 subjects and none of them was able to state the real purpose, i.e. to investigate if *humor is effective in TV commercials for OTC drugs*. Basically the answers were focused on the declared purpose: a research about new OTC drugs to be launched in the market. Actually only 2 out of 60 answers mentioned humor as part of the research concept, but they connected humorous advertising with drug credibility and not

with persuasion or choice. Thus, the decision was made to keep all 60 respondents in the research statistical evaluations. As a conclusion, the experiment had validity and all subjects´ answers seemed to have been gathered without bias or contamination.

4.3. DEPENDENT VARIABLES ANALYZES

The results for the three quantitative metrics A_{AD}, A_{BR}, and PI for the six TV commercials are detailed in the Table 9, as well as the differences between analgesics and the other two categories, for the three variables, in case of humorous TVCs.

Table 9. A_{AD}, A_{BR}, and PI Means for the six TVCs

Humor	Att. toward the Advertising			Att. toward the Brand			Purchase Intention		
	Yes	No	Signif.	Yes	No	Signif.	Yes	No	Signif.
Analgesics	5,46	5,85	0,129	5,24	5,53	0,343	4,86	5,24	0,283
Vitamins	4,99	6,19	0,000	4,81	6,00	0,000	4,53	5,95	0,000
Laxatives	5,19	6,09	0,001	5,14	5,76	0,007	4,68	5,45	0,013
Analg. vs. Vit.	0,48		0,021	0,43		0,031	0,32		0,208
Analg. vs. Lax.	0,29		0,223	0,09		0,710	0,18		0,574

T-tests (2-tailed, with 95% confidence interval) were performed to compare the means, with statistical significance for vitamins and laxatives, as per column *Signif.* inferior to 0,05, while for analgesics, mean differences were not-significant, with p-values higher than 0,05. The means in Table 9 are higher for non-humorous TVCs, in comparison with their respective humorous copies, for the three drug categories, confirming Hypothesis 2. The positive differences observed in the three variables between analgesics vs. vitamins or laxatives, either statistically significant or not, indicated that humor was not less favorable for analgesics, in comparison with the other two categories, and, therefore, Hypothesis 3 was not confirmed.

Brand choices (BC) were evaluated and the results are shown in Table 10 below, utilizing the conditional logit. Before arriving to the final model of BC as a function of humor, we tested the demographic variables, such as age, instruction level, and social class. The statistical treatment of these variables indicated that no significant differences were verified among them, and thus they were dropped from the final model. One possible reason for this was the small size of the sample, which did not allow for differentiation clusters.

On the other hand, the sample was sufficient to show statistical significance for the model choice = f (humor). In Table 10, for vitamins and laxatives, humor did not help choices and both showed negative coefficients, with P > | z | well below 0,0000. This means that consumers' choices were preferable toward non-humorous TVCs. For analgesics, the coefficient is also below 1,0, meaning that humor does not increase brand choice probability, but as the P > | z | = 0,439, this finding is not statistically significant. The odds ratios (OR) confirms the findings, indicating that for vitamin and laxatives, humorous TVCs have approximately 1/3 probability to be chosen, leaving 2/3 to non-humorous executions.

Table 10. Brand Choice (BC) for three OTC categories

	Analgesics	Vitamins	Laxatives
Number of obs.	120	120	114
LR chi2	0,60	15,70	17,81
Prob . chi2	0,4382	0,0001	0,0000
Pseudo R2	0,0072	0,1887	0,2254
Log likelihood	-41,28833	-33,74011	-30,60524
Choice = f (humor)			
Coeficient	-0,20067	-1,09861	-1,21924
Std. Error	0,25950	0,29814	0,31567
z	-0,77	-3,68	-3,86
P > |z|	0,439	0,000	0,000
95% Confidence	-0,70928	-1,68296	-1,83795
Interval	0,30794	-0,51426	-0,60053
Choice Odds Ratio			
Humor	0,81818	0,33333	0,29545
Std. Error	0,21232	0,09938	0,09327
95% Confidence	0,49200	0,18582	0,15914
Interval	1,36062	0,59794	0,54852

Notes: chi2 means chi-square and f is a function

4.4. ADDITIONAL PARAMETERS EVALUATIONS

In the introductory part of the experiment, a simple indicator of brand loyalty was gathered from consumers. The support question was to ask if the subject had a preferred brand for analgesics, vitamins, and laxatives; in an affirmative response, the subject was asked what she does when the product is missing in a pharmacy. The answers are shown in Table 11, indicating that, in general, there is brand loyalty for the three OTC categories. This indicator

is slightly lower for analgesics, which can be explained by the higher familiarity with the analgesics category, with consumers being aware of several brands. Due to a small base number of answers in vitamins and laxatives, it was not possible to perform statistical tests comparing loyalty among the three categories.

Table 11. Loyalty Indicator

Question: When you don't find your preferred brand in the pharmacy, what do you do?			
Procuct Category	**Base n**	**Look for in another pharmacy (%)**	**Buy another brand (%)**
Analgesics	47	49	51
Vitamins	14	79	21
Laxatives	7	71	29

Regarding the relations between DVs, it was evaluated if A_{AD}, A_{BR}, and PI scores were consistent with the model from Beard (2008), presented in Figure 2, Chapter 2. The correlations of DVs are detailed in Table 12, showing that the metrics are correlated, for the three drug categories. Thus, the attitude toward the ad (A_{AD}) is correlated with the attitude toward the brand (A_{BR}), as well as to the purchase intention (PI). The positive correlations for DVs were observed for both humorous and non-humorous TVCs, which does not mean that subjects preferred humorous TVCs, as seen in brand choice (BC) analysis.

Table 12. DVs Correlations

	Analgesic	HAD Yes	HAD No	AAD Yes	AAD No	ABR Yes	ABR No	PI Yes	PI No
HAD Yes	Pearson Correlation	1							
	Sig. (2-tailed)								
HAD No	Pearson Correlation	,142	1						
	Sig. (2-tailed)	,279							
AAD Yes	Pearson Correlation	**,610****	,306*	1					
	Sig. (2-tailed)	**,000**	,017						
AAD No	Pearson Correlation	,032	**,318***	,050	1				
	Sig. (2-tailed)	,811	**,013**	,705					
ABR Yes	Pearson Correlation	**,520****	,192	**,853****	-,110	1			
	Sig. (2-tailed)	**,000**	,142	**,000**	,403				
ABR No	Pearson Correlation	-,029	**,219**	-,099	**,701****	-,146	1		
	Sig. (2-tailed)	,825	**,093**	,453	**,000**	,265			
PI Yes	Pearson Correlation	**,476****	,168	**,788****	-,209	**,840****	-,269*	1	
	Sig. (2-tailed)	**,000**	,198	**,000**	,109	**,000**	,038		
PI No	Pearson Correlation	-,072	**,347****	-,049	**,684****	-,023	**,712****	-,080	1
	Sig. (2-tailed)	,585	**,007**	,708	**,000**	,863	**,000**	,544	

Vitamin		HAD Yes	HAD No	AAD Yes	AAD No	ABR Yes	ABR No	PI Yes	PI No
HAD Yes	Pearson Correlation	1							
	Sig. (2-tailed)								
HAD No	Pearson Correlation	,326*	1						
	Sig. (2-tailed)	,011							
AAD Yes	Pearson Correlation	**,653****	,478**	1					
	Sig. (2-tailed)	**,000**	,000						
AAD No	Pearson Correlation	,014	**,126**	,046	1				
	Sig. (2-tailed)	,914	**,339**	,724					
ABR Yes	Pearson Correlation	**,579****	,468**	**,863****	,116	1			
	Sig. (2-tailed)	**,000**	,000	**,000**	,378				
ABR No	Pearson Correlation	,035	**,262***	,140	**,832****	,253	1		
	Sig. (2-tailed)	,792	**,043**	,285	**,000**	,051			
PI Yes	Pearson Correlation	**,588****	,406**	**,818****	,011	**,858****	,118	1	
	Sig. (2-tailed)	**,000**	,001	**,000**	,931	**,000**	,368		
PI No	Pearson Correlation	-,082	**,239**	,005	**,689****	,110	**,753****	,073	1
	Sig. (2-tailed)	,532	**,066**	,968	**,000**	,401	**,000**	,579	

Laxative		HAD Yes	HAD No	AAD Yes	AAD No	ABR Yes	ABR No	PI Yes	PI No
HAD Yes	Pearson Correlation	1							
	Sig. (2-tailed)								
HAD No	Pearson Correlation	-,073	1						
	Sig. (2-tailed)	,582							
AAD Yes	Pearson Correlation	**,723****	,052	1					
	Sig. (2-tailed)	**,000**	,700						
AAD No	Pearson Correlation	,022	**,329***	,002	1				
	Sig. (2-tailed)	,870	**,011**	,987					
ABR Yes	Pearson Correlation	**,723****	,069	**,879****	,062	1			
	Sig. (2-tailed)	**,000**	,608	**,000**	,643				
ABR No	Pearson Correlation	,215	**,288***	,195	**,757****	,271*	1		
	Sig. (2-tailed)	,102	**,027**	,142	**,000**	,039			
PI Yes	Pearson Correlation	**,720****	,104	**,821****	,007	**,885****	,223	1	
	Sig. (2-tailed)	**,000**	,432	**,000**	,957	**,000**	,089		
PI No	Pearson Correlation	,130	**,336****	,137	**,694****	,217	**,827****	,295*	1
	Sig. (2-tailed)	,326	**,009**	,303	**,000**	,102	**,000**	,023	

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Notes: HAD = level of ad humor, AAD = attitude toward the ad, ABR = attitude toward the brand, and PI = purchase intention; Y*es* means humorous TVCs and *No* means non-humorous TVCs. The figures in bold represent the correlations for the same TVC, either humorous or not.

Reliability of the utilized scales was satisfactory, as per Cronbach's Alpha tests performed for each TVC and scale. The summarized results for A$_{AD}$, A$_{BR}$ and PI scales are detailed in Table 13 below, with acceptable reliabilities and alphas around 0,8 or above.

Table 13. Cronbach's Alphas for A_{AD}, A_{BR} and PI

	Attitude toward the advertising - A_{AD}		Attitude toward the brand - A_{BR}		Purchase intention - PI	
	Humor	**No Humor**	**Humor**	**No Humor**	**Humor**	**No Humor**
Analgesics	0,931	0,808	0,939	0,796	0,929	0,768
Vitamins	0,915	0,860	0,866	0,802	0,950	0,927
Laxatives	0,895	0,852	0,903	0,809	0,946	0,872

Cronbach's alphas around 0,8 were not reached for the variable level of advertising humor (H_{AD)}, as detailed in Table 14 below, in the first two columns (5 item scale). The identified reason, analyzed through statistical treatment, for this low reliability was the reverse question T, since most subjects did not understand its meaning properly. With the elimination of question T, alphas were significantly increased and reached 0,8 or above, as seen in columns 3 and 4 of the same Table 14 (4 items scale).

Table 14. Cronbach's Alphas for H_{AD}

	Level of Adverting Humor HAD (5 items)		Level of Adverting Humor HAD (4 items)	
	Humor	**No Humor**	**Humor**	**No Humor**
Analgesics	0,426	0,651	0,931	0,875
Vitamins	0,778	0,683	0,910	0,944
Laxatives	0,621	0,769	0,920	0,937

The last piece of relevant information gathered from the questionnaires, after the debriefing of its real intention to subjects, was the consumers' view about the use of humor in advertising. Questions 22 and 24 addressed whether consumers would like to watch TVCs with humor in general, and also specifically for drugs. Naturally, rational answers to these two direct questions were collected, since the experiment purpose was already disclosed to the subjects at this stage. Results of the answers are shown in Table 15, in paired mean comparisons.

The results of these two questions were *yes* for 92% of consumers in general and, 65% specifically for drugs, confirming that rationally consumers enjoy TV commercials with humor. The sample was formed by 44 subjects, since 16 answered "it depends" and were excluded from mean comparisons. The difference between the means of the two questions,

appears in column Mean = -0,159, statistically significant in a t-test (2-tailed, 95% confidence interval), resulting in a p-value of 0,018. This result reinforces that consumers have less acceptance of humor in OTC advertising than in general, even in the rational territory of consumer behavior.

Table 15. Humor in TVC in General and for Drugs

	Paired Differences			95% Confidence		t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	Lower	Upper			
22. Do you like to watch humorous TV commercials? vs. 24. Do you like to watch humorous TV commercials for drugs?	-0,159	0,428	0,065	-0,289	-0,029	-2,464	43	0,018

4.5. RESEARCH QUESTIONS AND HYPOTHESES CONCLUSIONS

According to this experiment and its gathered results, it is possible to answer the research questions, for the experimental sample only, as follow:

1st Question: Does humor work in advertising of pharmaceutical products?

No. Based in attitude toward the advertising (A_{AD}), attitude toward the brand (A_{BR}), purchase intention (PI), and brand choices (BC), humor did not work for laxatives and vitamins, while for analgesics, no statistically significant results were observed among the two groups. DVs scores shown in Table 9, indicate that non-humorous advertising was preferred in comparison to humorous executions. Brand choices shown in Table 10, evaluated through conditional logit, confirmed this finding.

2nd Question: Are there differences between the humor impact in drugs advertising for analgesics, laxatives and vitamins?

No. Based on the A_{AD}, A_{BR}, PI, and BC, no differences were statistically observed among the OTC categories; in fact, for laxatives and vitamins, results were quite similar, while for analgesics, humor was more accepted by subjects.

In sequence, as per these experiment results, it is possible to confirm the hypotheses of this thesis, as follows:

H1: Consumers choose OTC drugs advertised through non-humorous TV commercials, when compared with those advertised through humorous TV commercials.

Hypothesis 1 was partially confirmed, since most consumers chose OTC drugs advertised through non-humorous TV commercials, when compared with humorous ads, for vitamins and laxatives. Only for analgesics, results were non-statistically different for humorous and non-humorous TVCs.

H2: Humorous advertising produces less favorable consumers'

> **H2a: attitude toward the advertising (A$_{AD}$),**
> **H2b: attitude toward the brand (A$_{BR}$), and**
> **H2c: purchase intention (PI),**

for OTC drugs, when compared with non-humorous advertising.

Hypothesis 2 was confirmed, once humorous advertising produced lower consumers' scores of - H2a: attitude toward the advertising (A$_{AD}$), H2b: attitude toward the brand (A$_{BR}$), and H2c: purchase intention (PI), for OTC drugs, when compared with non-humorous ads, for two OTC categories, vitamins and laxatives. The DVs scores for analgesics were not different for humorous and non-humorous TVCs.

H3: Humorous advertising produces less favorable consumers'

> **H3a: attitude toward the advertising (A$_{AD}$),**
> **H3b: attitude toward the brand (A$_{BR}$), and**
> **H3c: purchase intention (PI),**

for *analgesics*, when compared with humorous advertising for *laxatives* or *vitamins*.

Hypothesis 3 was not confirmed since humorous advertising did not produce lower consumers' scores of - H3a: attitude toward the advertising (A$_{AD}$), H3b: attitude toward the brand (A$_{BR}$), and H3c: purchase intention (PI), for *analgesics*, when compared with humorous ads for *laxatives* or *vitamins*. In this research, humor was better accepted in the analgesic

category, as seen in brand choice and DV scores, than in vitamins and laxatives, where humorous ads were rejected. A possible explanation for this finding is included in chapter 5, item 5.2 Limitations of this thesis.

5. FINAL REMARKS

In this final chapter, four parts were included: the first summarizes the thesis conclusions; the second, its managerial implications; in the third session, research limitations are mentioned; and the last part presents the recommendations for future research in this field.

5.1. CONCLUSIONS

An experiment was designed to evaluate whether consumers prefer drugs advertised by humorous TV commercials, in comparison with similar drugs using non-humorous copy executions. The main conclusion was that humor did not work to sell analgesics, vitamins, and laxatives drugs; it was statistically significant that humorous executions reduced brand choice (BC) and the other advertising variables: - attitude toward the advertising (AAD), attitude toward the brand (ABR), and purchase intention (PI), for both vitamins and laxatives. Regarding analgesics, despite the fact that the results were not statistically significant, favorable brand choice and DVs scores for non-humorous TVCs were observed.

These findings were in line with the expected results from the academic literature and research hypotheses. Humor has been extensively used to promote products within most consumer goods categories (Weinberger and Gulas 1992) since advertisers believe that humor has a positive impact in enhancing audience attention (Sternthal and Craig 1973), which is positive for television commercial films (TVC). But while in some product categories, and depending on copy executional aspects, humor proved to be an effective tool, whereas in others its use reduced communication performance (Spotts et. al 1997). Most findings in the literature agree that some product categories, including non-prescription drugs, should not use humor and focus on a more "serious" copy strategy (Spotts et. al 1997).

Products such as OTC were categorized as goods with perceived low-risk and functional dimensions (Gulas and Weinberger 2006); humor utilization in advertising for these products should not be recommended, since it does not necessarily help major performance indicators. The meta-analysis published by Eisend (2009) indicated that humor should not provide any advantage for such category of products, and this research confirmed it.

Evaluating the possible way in which humor does not support the sales of OTC drugs was not the purpose of this thesis; but from its results and consumer behavior evaluated during the experiment, it seems that consumers prefer drugs advertised through serious TV commercials, since they provides greater credibility, which is a key success factor for such a kind of product. Usually, a mother purchases OTC drugs for herself, or for her family, that work adequately and effectively, without side effects; and, humorous advertising does not necessarily transmit the same credibility, trust, and confidence in product performance, as non-humorous executions.

5.2. MANAGERIAL IMPLICATIONS

This experiment conducted with 60 mothers, who are real consumers of OTC drugs, has real implications in the managerial field, not only due to the high expenditures in advertising, but also due to the nature of the product, with its potential profile of side effects. As a matter of fact, non-prescription drug advertising was, is and will be in coming years, an area of public interest and regulations, which takes the implications of this thesis beyond academic frontiers.

It is likely that marketing executives from pharmaceutical industries may review their copy strategies based on the results of this research, and further dwell on the mentioned issues regarding the use of humor in TV commercials. In fact, the heavy media investments using humor in OTC business may not be providing the returns as expected. This may not be adequately detected by advertisers since brand equity and other product attributes may be behind an apparent success in sales. In other words, if a lab invests in media to strength the brand and increase sales, the use of humor in TVC may not be adding value as expected; humorous TVCs may work as a brand reminder, but may not be bringing in new consumers. Advertising agencies should also revisit their concepts about the use of humor in OTC drugs.

In addition, consumers are not getting any educational information from humorous copy executions of TVCs. The emphasis on creating a hilarious film in the usual 30 seconds may easily jeopardize the entire production regarding drug information, and consequently, its credibility and persuasion effects. In any case, this is not a problem exclusive to the announcers, but also a regulatory concern. The way OTC drugs are communicated through humorous ads may contribute as a source of non-conscious use of medications. According to

Temporão (1986, 174), the exposure of consumers to drug advertising may represent a health care education obstacle, to a sanitary consciousness of the population. Of course, it would be naive to assume that an advertising film could be as informational as a visit to a physician, an internet survey, or a medicine prospect reading; but, a TV commercial focusing the health issue and presenting its solution, i.e. the advertised OTC drug, could contribute to consumers' understanding of their medical conditions and possible treatments. A well-balanced recommendation was proposed by Huertas and Urdan (2004, 4): "OTC advertising should inform or simply persuade? The right answer seems to be persuasion with information." In summary, this thesis confirmed the literature, which states that humor is not effective for OTC drugs advertisements and, in addition, that humorous executions are missing an opportunity to improve consumers' medical education.

5.3. LIMITATIONS

This research presented several limitations, some of them already mentioned in the experimental design, while others became apparent during its implementation. Among the limitations identified due to the adopted procedure, the main one was the possible distortion regarding TV commercials used in the experiment. Ideally, the experiment should be conducted with two new TVCs, with similar approaches and claims, differing only from their sense of humor. Somehow, the experiment should follow the designs developed by Flaherty et. all (2004), or Chattopadhyay and Basu (1990), with consumers divided into different groups, and thus, between-subjects, evaluate the same product with equivalent humorous and non-humorous advertising pieces. Nevertheless, those two experiments presented other limitations that this study did not have. The use of real TVCs with real consumers simulated the current market context more precisely. On the other hand, it was assumed that any chosen TVC could have been more enjoyable than another. To reduce this risk, specific copy executions were chosen and edited. In spite of this, it seems that for analgesics, the humorous copy was better evaluated in comparison with a too traditional execution, showing parity results in brand choice. For vitamins and laxatives, despite two highly representative humorous executions used, humor was rejected, confirming the study's main hypotheses.

Another limitation identified was the consumer's educational level and the sample's social class. The pre-selected classes B and C, both with cultural and economic constraints, presented some consequences to the research results. If they are considered representatives of

the real OTC market, some of the subjects faced some difficulties in understanding the scales evaluation and Likert scores. This did not preclude the statistically significant conclusions of most findings but compromised others, such as the level of involvement with the category, which collapsed from this research due to lower Cronbach's alphas.

This research lacked external validity, since, as most experiments, it was conducted in a lab with fictitious brands. Regardless, its conclusions may be intriguing for the real advertising field, even if the research is not conclusive in any sense. This experiment was conducted in artificial conditions, where consumers were exposed to TVCs exhibitions, in a completely different environment than their usual home life.

5.4. FUTURE RESEARCH

For future research in this field, the recommendations are: i) continue to avoid the use of known brands, ii) conduct experiments with new TVC productions, ensuring the humorous and non-humorous executions are as similar as possible; iii) test the TVCs between subjects, instead of within subjects, measuring parameters and not choice; iv) gather precise information about instruction level to correlate it with humor acceptance; v) continue to use samples formed by mothers, but with a larger sample size than the one used in this research; vi) include more OTC categories, to perform within subjects statistical evaluation, since three were insufficient to obtain individual patterns. Following these recommendations, more light would be shed into the impact of humor in OTC drug advertising.

As final reflections, OTC drug market is a particularly complex segment to be studied since consumer behavior in this field suffers several sources of influence, and does not follow normal marketing models. For instance, brand has a different meaning since it may have come with a strong heritage of medical or a family member recommendation.

In addition, humor is a complex construct, hard to standardize in experiments, as well as in consumers' reactions, as these tend to be very heterogeneous. Thus, combining *OTC drugs* and *humor* is a challenge that sometimes may be frightening even for an experienced researcher. As trade-off, it is a worthwhile and exciting area of study, not only because of its

academic richness, but mainly due to its public implications and in the improvement of human being health conditions.

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APPENDIX A – QUESTIONAIRE GUIDELINES

As the research was conducted with Brazilian consumers, this Appendix is written in Portuguese.

	Pr.1002 - QUEST.Nº._____

RG: _____ / _____

Cota: B.........................1   C. 2

Cidades: São Paulo.......................1

Nome: _____ Cidade: _____

Endereço:_____ Bairro: _____

E-mail:_____Fones: _____

Horário da entrevista: _____hs. Duração da entrevista: _____ min.

Ramal:_____ Dia do contato:_____/_____/_____ Horário do contato: _____hs.

Agendador:_____	Entrevistador:_____	Crítica: _____	Superv: _____	Verif: _____
Data: ___/___/___	Data: ___/___/____	Data: _____/____/_____	Data: _____/_____/____	Data: ____/____/____

Introdução (LEIA PARA O ENTREVISTADO)

Bom dia / boa tarde. Meu nome é........, e estou falando com o a sra. em nome da Resulta, uma empresa especializada em pesquisa na área da saúde. Caso queira conhecer mais sobre nossa empresa, visite nosso website em www.resulta.srv.br.

Devo informar que nosso contato telefônico está sendo gravado para garantir e facilitar a qualidade do trabalho do pesquisador.

Gostaria de convidá-la para participar de uma pesquisa sobre <u>MEDICAMENTOS VENDIDOS SEM RECEITA MÉDICA</u>. Essa entrevista deve durar por volta de 30 minutos.

Em nenhuma hipótese ou circunstância as suas opiniões individuais serão divulgadas a qualquer pessoa ou entidade.
Sua colaboração com esta pesquisa será muito valiosa.

Podemos contar com sua participação?

Sim.................1   Não..................2 → AGRADEÇA E ENCERRE

Filtro A: Quantos anos a sra.tem? _____ anos → DEVE SER ENTRE 25 E 50 ANOS
Filtro B: Vou ler alguns itens e gostaria que a sra. me dissesse se costuma ir à farmácia comprá-los pessoalmente, mesmo sem receita médica:

Filtro C: (PARA OS ITENS QUE RESPONDEU SIM NA P. ANTERIOR) Há quanto tempo foi a última vez que comprou?

Produtos	Filtro B. Costuma comprar sem receita?		Filtro C: Há quanto tempo foi a última vez que comprou?	
	Sim	**Não**		
Analgésicos, para dor de cabeça, dor nas costas etc.				→ **Deve ser menor do que 6 meses para qualquer opção.**
Laxantes, para prisão de ventre				
Vitaminas				

↓

Deve responder "sim" para pelo menos 1 das opções

51

Filtro D: A sra. tem filhos?

Sim.......................1   Não....................2 → **AGRADEÇA E ENCERRE**

↓

Quantos? _____ filhos ➔ Qual a idade? _____ / _____ / _____ / _____ / _____

Filtro E: Classificação social:

Posse de itens

	Quantidade de Itens				
	0	1	2	3	4 ou +
Televisão em cores	0	1	2	3	4
Rádio	0	1	2	3	4
Banheiro	0	4	5	6	7
Automóvel	0	4	7	9	9
Empregada mensalista	0	3	4	4	4
Máquina de lavar	0	2	2	2	2
Videocassete e/ou DVD	0	2	2	2	2
Geladeira	0	4	4	4	4
Freezer (aparelho independente ou parte da geladeira duplex)	0	2	2	2	2

Grau de Instrução do chefe de família

Analfabeto / Primário incompleto	Analfabeto / Até 3ª. Série Fundamental	0
Primário completo / Ginasial incompleto	Até 4ª. Série Fundamental	1
Ginasial completo / Colegial incompleto	Fundamental completo	2
Colegial completo / Superior incompleto	Médio completo	4
Superior completo	Superior completo	8

➔**Total de pontos:_____**

Pontos	Classificação	
42 a 46	**A1**	( )
35 a 41	**A2**	( )
29 a 34	**B1**	( )
23 a 28	**B2**	( )
18 a 22	**C1**	( )
14 a 17	**C2**	( )
8 a 13	**D**	( )
0 a 7	**E**	( )

→ **RECRUTAR SOMENTE CLASSES B ou C**

Bloco "Analgésicos"

Sr(a) Entrevistador(a): aplique o bloco "analgésicos" apenas se a resposta for "SIM" para analgésicos no filtro B, caso contrário, pule para introdução antes da P.5

1. A sra. comentou que costuma ir à farmácia comprar analgésicos para dor de cabeça, dor nas costas, etc..., a sra. possui uma marca preferida?

   Sim.......................1   Não.....................2 → **P.P introdução antes da P.5**
   ↓
   1a. Qual marca? _____ *(Aceitar apenas resposta única)*

2. Por que razão a sra. prefere a marca **< mencione resposta da P.anterior >**?

   _____

   _____

   _____

3. Além da marca **< mencione resposta da P.1a >** a sra. costuma comprar outros analgésicos?

   Sim.......................1   Não.....................2 → **P.P introdução antes da P.5**
   ↓
   3a. Qual marca? _____ *(Aceitar apenas resposta única)*

4. Quando a sra. não encontra a marca **< mencione resposta da P.1a >** na farmácia, o que costuma fazer?

   Procura em outra farmácia.................1   Compra outra marca de analgésicos.....................2

   Outra atitude (especificar):_____

Bloco "Vitaminas"

Sr(a) Entrevistador(a): aplique o bloco "vitaminas" apenas se a resposta for "SIM" para vitaminas no filtro B, caso contrário, pule para introdução antes da P.9

5. A sra. comentou que costuma ir à farmácia comprar vitaminas, a sra. possui uma marca preferida?

   Sim.......................1   Não.....................2 → **P.P introdução antes da P.9**
   ↓
   5a. Qual marca? _____ *(Aceitar apenas resposta única)*

6. Por que razão a sra. prefere a marca **< mencione resposta da P.anterior >**?

   _____

   _____

   _____

7. Além da marca **< mencione resposta da P.5a >** a sra. costuma comprar outras vitaminas?

   Sim.......................1   Não.....................2 → **P.P introdução antes da P.9**
   ↓
   7a. Qual marca? _____ *(Aceitar apenas resposta única)*

8. Quando a sra. não encontra a marca **< mencione resposta da P.5a >** na farmácia, o que costuma fazer?

Procura em outra farmácia.................1   Compra outra marca........................2

Outra atitude (especificar):_____

Bloco "Laxantes"

Sr(a) Entrevistador(a): aplique o bloco "laxantes" apenas se a resposta for "SIM" para laxantes no filtro B, caso contrário, pule para introdução antes da P.13

9. A sra. comentou que costuma ir à farmácia comprar laxantes, a sra. possui uma marca preferida?

Sim........................1   Não.....................2 **→ P.P introdução antes da P.13**
↓
9a. Qual marca? _____ *(Aceitar apenas resposta única)*

10. Por que razão a sra. prefere a marca **< mencione resposta da P.anterior >**?

_____

_____

_____

11. Além da marca **< mencione resposta da P.9a >** a sra. costuma comprar outros laxantes?

Sim........................1   Não.....................2 **→ P.P introdução antes da P.13**
↓
11a. Qual marca? _____ *(Aceitar apenas resposta única)*

12. Quando a sra. não encontra a marca **< mencione resposta da P.9a >** na farmácia, o que costuma fazer?

Procura em outra farmácia.................1   Compra outra marca........................2

Outra atitude (especificar):_____

COMERCIAIS DE TV

SR. ENTREVISTADOR: A sequência dos vídeos que serão apresentados devem seguir um dos rodízios abaixo. Observe que o rodízio escolhido altera a ordem das próximas perguntas, conforme ao lado. Assinale a ordem utilizada:

( )Rodízio 1 ADORPAN/ADORPIN/CLAVIT/CLEVIT/ZILAX/ZILOX → **APLICAR P.13 – P.14 – P.15**
( )Rodízio 2 ZILAX/ZILOX/CLAVIT/CLEVIT/ADORPAN/ADORPIN → **APLICAR P.15 – P.14 – P.13**

LER PARA A ENTREVISTADA:
Esta pesquisa que estamos fazendo é sobre novos medicamentos que poderão ser vendidos no Brasil sem receita médica. Você vai conhecer os novos produtos, com nomes provisórios, através de comerciais de televisão. Podemos começar?

SR. ENTREVISTADOR:
Passar no DVD os 2 comerciais para **analgésicos**: ADORPAN E ADORPIN e em seguida perguntar:

13. Qual dos 2 analgésicos a sra. gostaria de levar pra sua casa pra experimentar? **(RU)**

ADORPAN......................1   ADORPIN......................2   Nenhum dos dois....................3
(NÃO LER)
SR. ENTREVISTADOR:
Passar no DVD os 2 comerciais para **vitaminas**: CLAVIT e CLEVIT e em seguida perguntar:

14. Qual das 2 vitaminas a sra. gostaria de levar pra sua casa pra experimentar? **(RU)**

CLAVIT......................1   CLEVIT......................2   Nenhum dos dois....................3
(NÃO LER)

SR. ENTREVISTADOR:
Passar no DVD os 2 comerciais para **laxantes**: ZILAX e ZOLAX e em seguida perguntar:

15. Qual dos 2 laxantes a sra. gostaria de levar pra sua casa pra experimentar? **(RU)**

ZILAX......................1   ZOLAX......................2   Nenhum dos dois....................3
(NÃO LER)

PARA INFORMAÇÃO DO ENTREVISTADOR
A seguir, termos que identificam cada comercial, caso a entrevistada se esqueça:

ADORPAN → Escritório   CLAVIT → Correria do dia-a-dia   ZILAX → Vaso sanitário
ADORPIN → Porta da escola   CLEVIT → Babá   ZOLAX→ Mulher falando
sobre prisão de ventre

SR. ENTREVISTADOR: **Se utilizado rodízio 1 aplicar na ordem P.16 - P.17 – P.18**
Se utilizado rodízio 2 aplicar na ordem P.18 - P.17 – P.16

16. Vou ler agora algumas frases para a sra. e gostaria, por favor, que me dissesse o quanto concorda ou discorda com cada frase, utilizando a escala contida nesse cartão. **(ENTREGUE CARTÃO 01)**

→ Pensando apenas em **ADORPAN**, aquele produto do comercial do "escritório".....

→ Agora, vamos repetir o exercício pensando apenas em **ADORPIN**, aquele produto do comercial da "porta da escola".....

			ADORPAN "Escritório"							ADORPIN "Porta da escola"							
A	A decisão de comprar esse produto é uma bobagem	Discordo totalmente	1	2	3	4	5	6	7	1	2	3	4	5	6	7	Concordo totalmente
B	Comprar este produto é uma boa decisão	Discordo totalmente	1	2	3	4	5	6	7	1	2	3	4	5	6	7	Concordo totalmente
C	Eu achei este produto satisfatório	Discordo totalmente	1	2	3	4	5	6	7	1	2	3	4	5	6	7	Concordo totalmente
D	Eu achei que este produto tem muitos benefícios	Discordo totalmente	1	2	3	4	5	6	7	1	2	3	4	5	6	7	Concordo totalmente
E	Minha opinião sobre este produto é positiva	Discordo totalmente	1	2	3	4	5	6	7	1	2	3	4	5	6	7	Concordo totalmente
F	Eu gostaria de experimentar este produto	Discordo totalmente	1	2	3	4	5	6	7	1	2	3	4	5	6	7	Concordo totalmente
G	Eu compraria este produto se o visse na farmácia	Discordo totalmente	1	2	3	4	5	6	7	1	2	3	4	5	6	7	Concordo totalmente
H	Eu iria procurar este produto em uma farmácia para comprá-lo	Discordo totalmente	1	2	3	4	5	6	7	1	2	3	4	5	6	7	Concordo totalmente
I	Este comercial é ofensivo	Discordo totalmente	1	2	3	4	5	6	7	1	2	3	4	5	6	7	Concordo totalmente
J	Este comercial tem credibilidade	Discordo totalmente	1	2	3	4	5	6	7	1	2	3	4	5	6	7	Concordo totalmente
K	Este comercial é útil	Discordo totalmente	1	2	3	4	5	6	7	1	2	3	4	5	6	7	Concordo totalmente
L	Este comercial é informativo	Discordo totalmente	1	2	3	4	5	6	7	1	2	3	4	5	6	7	Concordo totalmente
M	Este comercial é objetivo	Discordo totalmente	1	2	3	4	5	6	7	1	2	3	4	5	6	7	Concordo totalmente
N	Eu gostei desse comercial	Discordo totalmente	1	2	3	4	5	6	7	1	2	3	4	5	6	7	Concordo totalmente
O	Este comercial é convincente	Discordo totalmente	1	2	3	4	5	6	7	1	2	3	4	5	6	7	Concordo totalmente
P	Este comercial é bem humorado	Discordo totalmente	1	2	3	4	5	6	7	1	2	3	4	5	6	7	Concordo totalmente
Q	Este comercial é engraçado	Discordo totalmente	1	2	3	4	5	6	7	1	2	3	4	5	6	7	Concordo totalmente
R	Este comercial é brincalhão	Discordo totalmente	1	2	3	4	5	6	7	1	2	3	4	5	6	7	Concordo totalmente
S	Este comercial é divertido	Discordo totalmente	1	2	3	4	5	6	7	1	2	3	4	5	6	7	Concordo totalmente
T	Este comercial é sério	Discordo totalmente	1	2	3	4	5	6	7	1	2	3	4	5	6	7	Concordo totalmente

17. Vou ler novamente as mesmas frases e gostaria, por favor, que repetisse o exercício, dizendo o quanto o quanto concorda ou discorda com cada frase, utilizando o mesmo cartão. **(ENTREGUE CARTÃO 01)**

→ Pensando apenas em **CLAVIT**, aquele produto do comercial que falava sobre a "correria do dia a dia"

→ Agora, vamos repetir o exercício pensando apenas em **CLEVIT**, aquele produto do comercial da "babá".

			CLAVIT							CLEVIT							
			"correria do dia a dia"							"Babá"							
A	A decisão de comprar esse produto é uma bobagem	Discordo totalmente	1	2	3	4	5	6	7	1	2	3	4	5	6	7	Concordo totalmente
B	Comprar este produto é uma boa decisão	Discordo totalmente	1	2	3	4	5	6	7	1	2	3	4	5	6	7	Concordo totalmente
C	Eu achei este produto satisfatório	Discordo totalmente	1	2	3	4	5	6	7	1	2	3	4	5	6	7	Concordo totalmente
D	Eu achei que este produto tem muitos benefícios	Discordo totalmente	1	2	3	4	5	6	7	1	2	3	4	5	6	7	Concordo totalmente
E	Minha opinião sobre este produto é positiva	Discordo totalmente	1	2	3	4	5	6	7	1	2	3	4	5	6	7	Concordo totalmente
F	Eu gostaria de experimentar este produto	Discordo totalmente	1	2	3	4	5	6	7	1	2	3	4	5	6	7	Concordo totalmente
G	Eu compraria este produto se o visse na farmácia	Discordo totalmente	1	2	3	4	5	6	7	1	2	3	4	5	6	7	Concordo totalmente
H	Eu iria procurar este produto em uma farmácia para comprá-lo	Discordo totalmente	1	2	3	4	5	6	7	1	2	3	4	5	6	7	Concordo totalmente
I	Este comercial é ofensivo	Discordo totalmente	1	2	3	4	5	6	7	1	2	3	4	5	6	7	Concordo totalmente
J	Este comercial tem credibilidade	Discordo totalmente	1	2	3	4	5	6	7	1	2	3	4	5	6	7	Concordo totalmente
K	Este comercial é útil	Discordo totalmente	1	2	3	4	5	6	7	1	2	3	4	5	6	7	Concordo totalmente
L	Este comercial é informativo	Discordo totalmente	1	2	3	4	5	6	7	1	2	3	4	5	6	7	Concordo totalmente
M	Este comercial é objetivo	Discordo totalmente	1	2	3	4	5	6	7	1	2	3	4	5	6	7	Concordo totalmente
N	Eu gostei desse comercial	Discordo totalmente	1	2	3	4	5	6	7	1	2	3	4	5	6	7	Concordo totalmente
O	Este comercial é convincente	Discordo totalmente	1	2	3	4	5	6	7	1	2	3	4	5	6	7	Concordo totalmente
P	Este comercial é bem humorado	Discordo totalmente	1	2	3	4	5	6	7	1	2	3	4	5	6	7	Concordo totalmente
Q	Este comercial é engraçado	Discordo totalmente	1	2	3	4	5	6	7	1	2	3	4	5	6	7	Concordo totalmente
R	Este comercial é brincalhão	Discordo totalmente	1	2	3	4	5	6	7	1	2	3	4	5	6	7	Concordo totalmente
S	Este comercial é divertido	Discordo totalmente	1	2	3	4	5	6	7	1	2	3	4	5	6	7	Concordo totalmente
T	Este comercial é sério	Discordo totalmente	1	2	3	4	5	6	7	1	2	3	4	5	6	7	Concordo totalmente

18. Repetindo o exercício, gostaria agora que a sra. continuasse com o mesmo cartão e me desses as notas.....

→ Pensando apenas em **ZILAX**, aquele produto do comercial que mostra o "vaso sanitário".

→ Agora, vamos repetir o exercício pensando apenas em **ZOLAX**, aquele comercial com "uma mulher falando sobre prisão de ventre".

			ZILAX "Vaso sanitário"							ZOLAX "Mulher falando sobre prisão de ventre"							
A	A decisão de comprar esse produto é uma bobagem	Discordo totalmente	1	2	3	4	5	6	7	1	2	3	4	5	6	7	Concordo totalmente
B	Comprar este produto é uma boa decisão	Discordo totalmente	1	2	3	4	5	6	7	1	2	3	4	5	6	7	Concordo totalmente
C	Eu achei este produto satisfatório	Discordo totalmente	1	2	3	4	5	6	7	1	2	3	4	5	6	7	Concordo totalmente
D	Eu achei que este produto tem muitos benefícios	Discordo totalmente	1	2	3	4	5	6	7	1	2	3	4	5	6	7	Concordo totalmente
E	Minha opinião sobre este produto é positiva	Discordo totalmente	1	2	3	4	5	6	7	1	2	3	4	5	6	7	Concordo totalmente
F	Eu gostaria de experimentar este produto	Discordo totalmente	1	2	3	4	5	6	7	1	2	3	4	5	6	7	Concordo totalmente
G	Eu compraria este produto se o visse na farmácia	Discordo totalmente	1	2	3	4	5	6	7	1	2	3	4	5	6	7	Concordo totalmente
H	Eu iria procurar este produto em uma farmácia para comprá-lo	Discordo totalmente	1	2	3	4	5	6	7	1	2	3	4	5	6	7	Concordo totalmente
I	Este comercial é ofensivo	Discordo totalmente	1	2	3	4	5	6	7	1	2	3	4	5	6	7	Concordo totalmente
J	Este comercial tem credibilidade	Discordo totalmente	1	2	3	4	5	6	7	1	2	3	4	5	6	7	Concordo totalmente
K	Este comercial é útil	Discordo totalmente	1	2	3	4	5	6	7	1	2	3	4	5	6	7	Concordo totalmente
L	Este comercial é informativo	Discordo totalmente	1	2	3	4	5	6	7	1	2	3	4	5	6	7	Concordo totalmente
M	Este comercial é objetivo	Discordo totalmente	1	2	3	4	5	6	7	1	2	3	4	5	6	7	Concordo totalmente
N	Eu gostei desse comercial	Discordo totalmente	1	2	3	4	5	6	7	1	2	3	4	5	6	7	Concordo totalmente
O	Este comercial é convincente	Discordo totalmente	1	2	3	4	5	6	7	1	2	3	4	5	6	7	Concordo totalmente
P	Este comercial é bem humorado	Discordo totalmente	1	2	3	4	5	6	7	1	2	3	4	5	6	7	Concordo totalmente
Q	Este comercial é engraçado	Discordo totalmente	1	2	3	4	5	6	7	1	2	3	4	5	6	7	Concordo totalmente
R	Este comercial é brincalhão	Discordo totalmente	1	2	3	4	5	6	7	1	2	3	4	5	6	7	Concordo totalmente
S	Este comercial é divertido	Discordo totalmente	1	2	3	4	5	6	7	1	2	3	4	5	6	7	Concordo totalmente
T	Este comercial é sério	Discordo totalmente	1	2	3	4	5	6	7	1	2	3	4	5	6	7	Concordo totalmente

CHECAGEM DO OBJETIVO

19. Em sua opinião, qual o objetivo dessa pesquisa?

_____

_____

_____

20. Vou fazer algumas perguntas e gostaria que a sra. respondesse utilizando a escala contida nesse cartão
(ENTREGUE CARTÃO 02)
Quando a sra. escolhe um medicamento sem receita médica . . . .

			1	2	3	4	5	6	7	
A	O quanto considera importante essa decisão?	Pouco importante	1	2	3	4	5	6	7	Muito importante
B	O quanto de cuidado considera que essa decisão requer?	Pouco cuidado	1	2	3	4	5	6	7	Muito cuidado
C	O quanto a sra. tem a perder caso escolha o produto errado?	Pouco a perder	1	2	3	4	5	6	7	Muito a perder
D	O quanto essa decisão é lógica ou objetiva?	Pouco lógica ou objetiva	1	2	3	4	5	6	7	Muito lógica ou objetiva
E	O quanto essa decisão expressa sua personalidade?	Expressa pouco minha personalidade	1	2	3	4	5	6	7	Expressa muito minha personalidade
F	O quando essa decisão é baseada em sentimento?	Pouco baseada em sentimento	1	2	3	4	5	6	7	Muito baseada em sentimento
G	O quanto essa decisão é baseada em aspecto, sabor, textura ou cheiro?	Pouco baseada nessas características	1	2	3	4	5	6	7	Muito baseada nessas características

21. A sra. se considera uma pessoa bem humorada? **(DEIXE ESPONTÂNEO)**

Sim.....................1   Não........................2   Depende.........................3 **(NÃO LER)**

ESCLAREÇA PARA A ENTREVISTADA:
O objetivo dessa pesquisa é avaliar sua opinião sobre o uso de humor na propaganda e comerciais de TV:

22. A sra. gosta de assistir comerciais de humor na televisão?

Sim.....................1   Não........................2   Depende.........................3 **(NÃO LER)**

23. Por que? **(PARA QUALQUER RESPOSTA)**

_____

_____

24. A sra. gosta de assistir comerciais **de medicamentos** de humor na televisão?

Sim.....................1   Não........................2   Depende.........................3 **(NÃO LER)**

25. Por que? **(PARA QUALQUER RESPOSTA)**

_____

_____

26. A sra. acha que os comerciais de medicamentos na televisão ajudam a explicar para que serve o produto e como ele funciona?

Sim.....................1   Não........................2   Depende.........................3 **(NÃO LER)**

27. Por que? **(PARA QUALQUER RESPOSTA)**

_____

_____

AGRADEÇA E ENCERRE!!!

APPENDIX B – TVCs PACK-SHOTS

ANALGESIC TVCs

ADORPAN (humorous)   **ADORPIN (non-humorous)**

Speaker: Eliminate pains from your life: take ADORPAN or ADORPIN.

VITAMINS TVCs

CLEVIT (humorous)   **CLAVIT (non-humorous)**

Speaker: CLEVIT or CLAVIT, the vitamin that recharges your energy.

LAXATIVES TVCs

ZILAX (humorous)   **ZOLAX (non-humorous)**

Speaker: ZILAX or ZOLAX: your intestine working naturally.

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