Contagion in Consumer Behavior: An Essay About Evolution, Nature and Insights for Future Research

Abstract
Since its origin in Fracastoro's contagion theory (LEDERBERG, 2000), the term contagion has expanded to explain behaviors in other areas of knowledge, such as consumer behavior. However, in view of this wide diversity and possibilities of applying the contagion to explain attitudes and behaviors in the sphere of consumption, it is necessary that there is a synthesis and classification of the main points of comprehension of the concept. Therefore, the main objective of this article will be to classify these different applications of the term contagion, based on the nature of the studied behavior. For this, a review of the literature was carried out, so that it was verified that the main behaviors that the contagion has tried to explain relate to the collective, emotional, social and physical aspects aspects.This effort to classify the phenomenon was important to bring future research possibilities with the computational resources nowadays, specially Natural Language Processing tools.

Keywords- contagion; emotional contagion; social contagion; natural language processing

1. Introduction

Last year, Kylie Jenner, one of the Internet's most influential personalities, published for her followers on Twitter about how she has spending few time on Snapchat, one of the social networks most accessed by young audiences. The Jenner statement helped to topple Snapchat's shares, considered one of the most profitable technology companies today, and reduce its market value by about $ 1.3 billion. However, recently the opposite happened: Snapchat "resurrected" so much that it appeared in the trending topics of Twitter after the promotion of two new types of filters: one that transforms the person into his child version, and the other that turns the person into his version of the opposite genre. The photos related to these versions began to circulate more and more in social media, and proliferated as a virus spreads in their environment: social contagion occurred.

The term "contagion" had its origin in medicine, when the physician Giralamo Fracastoro (1530) used it to designate cases of dissemination of a highly transmissible disease through direct or indirect contact with the infected person (LEDERBERG, 2000). Some years later, the term was used in theories of collective behavior, to refer to cases in which people abruptly altered their behavior and began to act in an irrational way, imitating the behavior of other people (LOCHER, 2002). In psychology, Hatfield and colleagues (1992) found that there was a certain convergence between the therapist's emotions and those of his patient in a transference process that was called of emotional contagion and was defined as the tendency to " catch " the emotions, subjective feelings, expressions, psychological processes, tendencies of action and instrumental behaviors of other people. Iyengar and colleagues (2011) cite social contagion as the power of influence that some consumers exert on others, due to faster proliferation of product information. In the context of consumption, contagion is also treated like a type of contamination (WHITE; 2016; MORALES; FITZSIMONS, 2007). The literature that supports this perspective suggests that there is a quality transfer from source to target, and that quality may be physical, mental or moral, of positive or negative valence (MISHRA, 2008).

The main objective of this article is to classify these different applications of the term, based on the nature of the behavior studied, given the wide diversity and possibilities of applying the contagion to explain attitudes and behaviors in the consumption domain. For this, a literature review was carried out so that it was verified that the main attitudes and behaviors by which the contagion has attempted treat the theme under three perspectives: (1) emotional, (2) physical, and (3) social interactions. This effort to classify the contagion phenomenon was important, at the end of the trial, to bring future research possibilities with the existing computational resources, specially with use of Natural Language Processing.

2. Method

For the development of the research, a literature review was carried out, prior to the selection of four top journals: Journal of Marketing, Journal of Consumer Research, Journal of Marketing Research and Marketing Science. These journals are choosed because their focus is on marketing and because all them covered practical and theoretical contributions. Past research, like Lamberton and Stephen (2016) have already made literature review with the same justification. Textbooks and articles from other journals (e.g. Science) were also used to better support the origins and concepts that emerged during the literature review, such as Hatfield and colleagues'research (1992) that brings the conceptual definition of emotional contagion.

Due to the fact that the contagion was used under different theoretical perspectives, only the articles that contained in the title and abstract the reference to the term were selected, since it is understood that in these cases the contagion is a preponderant factor in the article, that is, there are substantial contributions for the theme. In this way, articles that used the contagion only as alternative explanations to other types of phenomena (ex: mouth-to-mouth, social learning, etc.) or that used the contagion only in isolated experimental studies were excluded from the selection.

Obviously, the research is not intended to detail all forms of application of contagion in consumption. The objective is, among the main applications for which it has been used in the area, to synthesize into large groups of contributions. In other words, this research is an effort to create a classification that encompasses the main contributions of contagion, taking into account the nature of the behavior studied. Based on this, the applications of the contagion in the consumption were divided in: contagion and collective behavior; contagion (related to contagion derived from physical contact or approach), emotional contagion and contagion in social interactions

3. Contagion

3.1 Origin and Overview

The term "contagion" was first used in biology / medicine by the physician Giralamo Fracastoro (circa 1530). At the time, Fracastoro reported cases of dissemination of syphilis, through direct or indirect contact with the infected person. Some authors refer to Fracastoro's findings as a "contagionist theory" (LEDERBERG, 2000). Some years after Fracastoro's writings, the term contagion has been used in collective behavior theories to designate situations in which there is a rapid transmission of ideas, thoughts and behaviors from an individual to a group of people (LOCHER, 2002). This rapid proliferation of ideas and actions became the theory of

social contagion, a phenomenon whose initial development was linked to the research of Gustave LeBon, Robert Park and Herbert Blumer

Gustave LeBon (1895) was the first author to speak on the subject. The author sought the reason why "ordinary" citizens became extremely aggressive when they were immersed in crowds, and a few minutes or hours later those same citizens returned to their normal state. It was as if these people had been contaminated by an infection, which made them act in an irrational, inconsequential and fearless way against other people (LEBON, 2017). Unlike LeBon, Robert Park (1904) argued that people imitate and reinforce each other's behavior more by a sociological rather than a pathological one, for people tend to engage in movements through social interaction and the need to feel united. Finally, Herbert Blumer (1967) included more forms of manifestation of collective behavior beyond the crowds, such as mobs, panics, dancing crazes, stampedes, public opinion, propaganda, fashion, fads, social movements, revolutions and reforms. , 2002).

The theory of social contagion has been modified through the view of each of the authors, however, there is a point of agreement in all of them: the collective behavior derived from the contagion changes the mental state of the participants, that is, individuals act irrationally and not logic about their behavior, which causes them to engage in actions they would not normally do if they were alone. Moreover, this process of contagion is not instantaneous, and occurs only when there is a crowd that focuses attention on the same event, person or object. People who are present in the crowd begin to influence one another, and as excitement increases, individuals lose their individual consciousness and act as a collective mentality (LOCHER, 2002).

3.2 Emotional Contagion

The existence of a possible transference between emotions and feelings from one person to another arose initially from the observation of clinical psychologists. Rapson and Hatfield (HATFIELD et al., 1992) worked as therapists when they realized that their mood changed after the end of each therapy session and that they experienced the same emotions their patients reported feeling, such as anxiety and anger. After noting that there was a certain convergence between the emotions in the (dymatic) interaction between psychologist-patient, Hatfield sought to better understand how this process of transference occurred, which he called emotional contagion.

Hatfield and colleagues (1992) defined emotional contagion as the tendency to experience the emotions, subjective feelings, expressions, psychological processes, tendencies of action, and instrumental behaviors of other people. According to these authors, the stimulus that emerges from an individual causes one or more people to perceive and interpret this stimulus (eg, facial expressions, tone of voice, posture, etc.), corresponding or complementing attitudes, emotions and behaviors. In the case of correspondence, the responses manifested by the people are similar to the precipitating stimulus, for example when a smile arouses another smile. In the case of complementarity, the manifested response is called countercontagion, and occurs for example when an expression of anger arouses fear and causes the other person to withdraw (HATFIELD et al., 1992).

Orimoto and Hatfield (1992) developed a scale as a measure of vulnerability to emotional contagion, that is, as a way of identifying which profiles of people were more likely to capture the emotions and feelings of others, such as fear, anxiety, anger or sadness. Factors such as gender, personality, past experiences, and people in a relationship of dependency, intimacy, and complicity would be more susceptible and predisposed to experiencing the emotions of other

people. Therefore, women, couples, mothers and children, teachers and students, and therapists and their patients would be examples of this type of vulnerable profile (HATFIELD et al., 1992).

Years later, emotional contagion began to be applied to better understand attitudes and behaviors in the context of consumption. Howard and Gengler (2001) analyzed the impact of a person's emotional state on someone else's assessment of a product. The authors found that in social interactions, when the person giving (sender) the product demonstrates happiness, and when the receiver (receiver) likes the other person (liking), there is a convergence between the emotion of the person receiving with the emotion of happiness of the other person, and this convergence causes the product to be evaluated positively. The findings identified mimicry as a mediating variable of observed emotional contagion (HOWARD; GENGLER, 2001).

Small and Verrochi (2009) studied the phenomenon of emotional contagion as persuasive appeal in charity campaigns. Images with facial expressions of people in vulnerability situations, especially social and economic, have been used as a strategy to encourage people's prosocial behavior and, consequently, increase the amount of donations. The authors take emotional contagion into account as an automatic and primitive form of empathy, and this empathy triggers sympathy, which would be when a person has emotional concern about the well-being of another person. The results found by Small and Verrochi (2009) demonstrated that exposure to images of victims expressing sadness arouses sadness in those who observe them, and this emotional convergence of sadness facilitates sympathy and, consequently, the propensity to donate. However, this effect was not significant when the observer had critical thinking about it.

3.3 Contagion as a Contamination

In this second classification, contagion is seen from the perspective of contamination, especially from contact or physical proximity. The literature that supports such articles suggests that there is a quality transfer from source to target, and that quality may be physical, mental or moral, of positive or negative valence (MISHRA, 2008). In addition, contagion may involve contact between products, product groups or between person and product. It can be said that, of all the forms of contagion that will be approached in this essay, this would be the closest to the source of application of the term, since in the past contagion was used to designate contamination (LEDERBERG, 2000). However, unlike the origin, this contamination referred to in the consumption is merely subjective, since the products do not cause damages to the health of the person, although they arouse negative emotions.

Morales and Fitzsimons (2007) found that the physical contact of a product considered "disgusting" in another product caused people to evaluate negatively the second product. In this situation, it is as if unpleasant properties of the product were transferred to the second product through physical proximity, and such transfer would imply a negative evaluation of the other product (MORALES; FITZSIMONS, 2007). White and colleagues (2016) found that consumers tend to negatively evaluate products that are in poor or damaged packaging, even though there is no interference or actual harm to the product.

Mishra (2008), on the other hand, analyzed the impact of contagion within a group of products, in a context of losses and gains. For the development of the research, the author considered the contagious group to be formed by groups of similar, similar and symmetrical products, and the non-contagion group by distant, asymmetric and non-similar product groups. In the contagion group, the transfer of quality among the group members would be easier to occur. The results indicated that when the two groups (contagion and non-contagion) presented an equal

chance of gain (eg a discount coupon), consumers decide in favor of that group in which the products are kept close (contagion group). However, when both groups have the same chance of loss (eg defect in a product), consumers prefer to choose the product that is kept further away from the group (non-contagious group) (MISHRA, 2008).

"Contamination" triggered by contagion can also be seen positively, and occur between physical contact or proximity of product to individual. Argo and colleagues (2008) studied a routine action that usually happens in consumer experiences in retail: touching products. The authors wanted to understand if the desire to buy a product increased after the consumer saw that another person was touching the product. The findings showed that consumers react positively and better evaluate the product when it is touched by another person with high level of attractiveness. However, one important point to note is that the results are more prominent when the person touching the product is of the opposite gender to the one observing the act, which indicates that gender is a moderating variable in this type of situation (ARGO et. al., 2008).

3.4 Contagion in Social Interactions

The third possibility of contagion application in consumer context concerns the influence of peers and individuals that are part of the social circle in which the person belongs. Contagion in these cases is called by the articles as social contagion. Most of these studies focused on impact of contagion in adoption and diffusion of new products (DU; KAMAKURA, 2011), analyzing aspects such as time of adoption and income (VAN DEN BULTE; STREMERSCH, 2004), and the role of peers on repeat behavior of a product (Iyengar et al., 2015). The context involving the health area, more precisely, the pharmaceutical industry, is a recurring element in these studies. Some of them were concerned to investigate which type of communication (marketing versus interpersonal) had the greatest influence on doctors' prescription of medicines (MARCHANDA et al., 2008), while others studies were concerned to understand whether opinion leadership was responsible for adoption (Iyengar et al., 2011). More tutorial articles, such as that of Van Den Bulte and Iyengar (2011) were limited to understand situations in which the data provide a false indicative of contagion. On the other hand, the most recent article in this last perspective focused on the analysis of effect of social connections in online communities on users' buying behavior (PARK et al., 2018)

Aral and Walker (2012) identified that demographic variables, such as age and gender, interfere in the power of influence exerted and the susceptibility to that influence. The authors found that young people are more influential, and that women have a greater power of influence than men. In addition, the authors found that the social structure in which people belong and their number of connections are largely responsible for the dissemination of products.

Hu and Van den Bulte (2014) analyzed the impact of factors such as social status and susceptibility to social contagion for product adoption. When the innovation present in a product has the potential to boost the person's social status, that is, to bring it up in the social hierarchy, there is a greater propensity to be influenced by the contagion and, consequently, to adopt the product. Contagion also manifests itself through the social connections present in online communities. Park and colleagues (2018) have demonstrated that the characteristics of this type of social structure coupled with the type of product and user profile influence the buying behavior of young people belonging to these communities.

Regarding the adoption of products, the social contagion existing in the medical context involving the prescription of medicines generated important contributions to the theme.

Manchanda and colleagues (2008) investigated the effect of the influence of marketing communication and interpersonal communication on the adoption of pharmaceutical products. Through behavioral data and analyzing factors such as the time of adoption of the drug since its launch, average monthly samples and average number of prescriptions of the product category in the month, the authors verified the existence of the effects of contagion among doctors from different cities. In addition to medicines, the adoption of other types of products is also benefited through social contagion. Bollinger and Gillingham (2012) observed that the social interaction caused by proximity between neighbors favored the diffusion process of eco-friendly technologies, such as solar panels.

Years later, Iyengar and colleagues (2015) studied the contagion from the perspective of attempting and repeating the use of drugs. The findings showed that there is a difference in the level of influence exerted by the pairs in the attempt and the repetition of the use of the product, besides there is difference as to the susceptibility of social influence. The physicians with greater power of influence in encouraging other doctors in the attempt to use the product would be those who are reference in their professional circle, who dominate the discussions and who possess high volume of prescriptions. The closest doctors in the social circle regarding the reference physician tend to be more influential in the attempt and repetition of use. In terms of susceptibility to influence, in relation to attempted use, the most influential physicians are those who do not consider themselves opinion leaders, whereas physicians located in the central part of the social structure tend to be more influential in the repetition of use of the product (IYENGAR et al., 2015). It is important to emphasize that, unlike other studies, these authors included the self-confidence of the recipient of the influence and the confidence in the own judgment as variables capable of impacting the social contagion.

The role of opinion leadership in proliferation of social contagion is an important point to be considered in this last perspective. Some consumers exert a disproportional influence on the purchasing decisions of other consumers, which may be due of their position in the social circle (people who are in central positions tend to be more influential) or because they have a high level of expertise about the product (IYENGAR et al., 2011). Iyengar and colleagues (2011) comment that this greater power of influence turns these consumers in "seeds" in the process of social contagion, because they are capable of viralization, that is, they can proliferate much faster and more intense the information they receive.

Although not included in previous selection of journals, it is important to cite the research by Gino and colleagues (2009) about the influence of people belonging to the same social group in the adoption of dysfunctional behaviors. The authors found that exposing unethical attitudes and behaviors increases the likelihood of exposed individuals also behaving dishonestly. However, this increase is related to implicit social norms, represented by the identification of the observer with the one who is committing the dishonest act. In other words, if the observer considers one who commits the unethical act as a member of his group, there is a greater chance that he will act in the same way. If, on the other hand, there is no such identification, the probability of dishonest behavior being imitated by the observer decreases.

4. Contagion: Which perspective can be the next? Insights for future research

The effort to classify the contagion phenomenon in terms of its main contributions in the consumption domain has the merit of being a guide for the development of new research. However, it is important to keep in mind that future research possibilities will be more successful if they can be supported by the advances in other areas of knowledge. In this case, the contagion research will brings better understanding about consumers with the use of the new computational resources and tools present nowadays.

According to Humphreys and Wang (2017), the data available on online platforms, especially textual data, are already being analyzed through computational resources, in order to compare, correlate elements and identify patterns in information that humans usually can not identify, because natural limitation. Machine learning techniques are examples of the use of this type of computational resource.

Machine learning is a subfield of artificial intelligence, and can be defined such a system that is trained to recognize and perform tasks automatically, after this system being presented to numerous examples relevant to the execution of task (CHOLLET; ALLAIRE, 2017). Advances in availability and analysis of data as well as the existence of open source platforms were some factors that have boosted the rapid diffusion of the machine learning in the current days (ATHEY, 2017). These techniques, in particular, have been increasingly used to address issues related to resource optimization and prediction of economic and social events. Cederman and Weidmann (2017) cited the use of machine learning to try to predict the imminence of armed conflicts that threaten internal stability or state sovereignty. Clauset et. al. (2017), in turn, commented that machine learning has been applied to predict the process of scientific discovery, using the analysis of different variables such as the academic trajectory of the researcher and the number of citations of past works. Kennedy and colleagues (2017) indicate that computational resources helps to predict the outcomes of specific elections.

The existence of great amount data available, important condition for the application of computational techniques, such as machine learning, finds fertile ground in social media. Kern and colleagues (2016) comment that information obtained through the processing of the language exposed in online platforms is capable to reveal thoughts, feelings and characteristics of individuals and communities, broadening the understanding about people's affective, cognitive and behavioral processes. In this way, computational linguistics, also known as Natural Language Processing (NLP) would be the appropriate resource for this kind of analysis.

NLP is an application of machine learning focused in a specific type of problem: the learning, understanding and creation of human language content (HIRSCHBERG; MANNING, 2016). NLP techniques, whose origin dates Cold War machine translation systems, allow the extraction of information, inference and summarization of large amounts of text, throught their words, sentences and excerpts from the speech (HIRSCHBERG; MANNING, 2016; BIRD et al., 2009). Computational linguistics approaches encompass both simple techniques that analyze the word in isolation context (called "bag of words") and complex techniques such as those used to detect fake news in online content (CONROY et. al., 2015). In this case, signals of veracity in the information are analyzed through a comparison between the level of compatibility of the message with the content profile. In other words, the techniques verify the existence of contradictions and omissions of facts present in profiles of similar topics (CONROY et al., 2015).

According to Hirschberg and Manning (2016), the computational linguistic systems have three main purposes: 1) to aid human-human communication; 2) to aid human-machine communication; and 3) to bring benefits for human and machines through the learning of available linguistic content.

About human communication, machine translation is one of the first examples of non-numerical application by computers (HIRSCHBERG; MANNING, 2016). These authors point out that the translation is more satisfactory and correct (i.e. closer to natural language) if the computational system has the ability to analyze, generate and understand textual content within a context. In other words, face to complexity and ambiguity of specific words and expressions, the NLP technique must recognize and / or generate its correct meaning.

The second main purpose of NLP deals with called spoken dialogue systems and conversational agents. In this case, linguistic computational techniques are employed to machines interact directly with humans. Large technology companies such as Google, Apple and Amazon have their assistants who are activated by human voice command and can answer questions, make recommendations and perform simple tasks, such as creating shopping lists. In this type of NLP application, robots are also included to help and to perform tasks for those individuals who need special care, like elderly people and people with health problems (HIRSCHBERG; MANNING, 2016).

Finally, the third purpose for which NLP is employed brings benefits to both humans and machines because it makes use of the learning and analysis of great amount of human language content available online (HIRSCHBERG; MANNING, 2016). Through social media, it is possible to obtain a wide variety of individual and collective information about users, such as the identification of social interactions, feelings, opinions, beliefs about events, people or products, and is even possible to predict the spread of diseases through the links mentioned on content platforms such as Twitter (HIRSCHBERG; MANNING, 2016; KERN et. al., 2016).

About the speaker, it is possible to identify individual and personality characteristics (i.e. age, gender, likeability, motivations, interests), aspects related to their cognitive ability, possible disorders and health problems (i.e. autism, Parkinson's disease), and even to identify alterations in speaker's state, due to situations of drunkenness and drowsiness (HIRSCHBERG; MANNING, 2016). In addition, the researchers point out that called "private states" allow us to extract opinions, speculations, beliefs and emotions from the content of the textual message, giving emphasis to the sentiment analysis. According to Villaroel and colleagues (2017), the sentiment analysis has already been applied in the context of online reviews, by counting the frequency of emotions emitted in text and by the categorization of their valence (positive, negative and neutral).

It is known that the techniques of Natural Language Processing is capable to identify personality traits, emotional conditions and characteristics of the speaker, but what ways these techniques can help the future in terms of contagion and consumption? In the following, I raise some possibilities of future research, in which the use of NLP would contribute both in terms of individual consumption, as well as managerial and strategical aspects for the companies:

4.1. Insight Number 01: Contagion, NLP and Online Complaints

According to Villaroel and colleagues (2017), there are other possibilities to extract relevant and more reliable information from textual content that is still little explored in the literature, such as the analysis of the textual structure, in which are the analysis of the expressions choosed by the consumer. In the past, Newman et al. (2003) had already been able to detect lies in texts by analyzing the characteristics of language style. Texts containing false stories had three main characteristics: low cognitive complexity, few self-references, and more negative emotional words. The research of Villaroel and colleagues (2017), based on the Speech Act Theory, showed

the impact of terms that activate (eg good x awesome), attenuate (eg "kind of nice") or impel (eg "very" good) meaning of emotional words in reviews.

The analyze of textual content with NLP techniques would help companies in a common situation that occurs nowadays: the incidence of online complaints. The act of using the internet to make public one privated online complaint brings consequences for both sides. Online complaints are used as a strategy of revenge and retaliation by dissatisfied consumers, and the persistence of this kind of comment on internet can have negative implications for long-term company metrics, like customer lifetime value, weaking the relationship between consumer and firm (GRÉGOIRE; TRIPP; LEGOUX, 2009; HOGAN; LEMON; RUST, 2002). Therefore, the use of NLP to analyze how consumers express themselves in online complaints could contribute to development of a estimation model for consumer tolerance, based on variables such the severity of the complaint, the urgency to repair the error and the power of influential that textual content is able to elicit in other consumers, that is, its potential of contagion.

4.2 Insight Number 02: Contagion, NLP and Consumption Attractiveness

The analysis of textual content through NLP, especially of content exposed in social media, would also contribute to the adoption of products and services. The role of peers opinion in social contagion through the dissemination and adoption of new products has already been addressed in previous studies (DU; KAMAKURA, 2011; VAN DEN BULTE; STREMERSCH, 2004; PARK et al., 2018). However, in most of these findings the social circle in which the person belongs was a important element for the contagion phenomenon to occur, but this element could rise the incidence of a bias, such as homophily, defined as the tendency of people to choose friends with similar tastes and preferences (ARAL; WALKER, 2012). But what if there is the possibility of contagion to occur in a way that the individual had the ability to influence his or her external environment in terms of buildings and creation of public and private spaces?

Identifying the attractiveness of a region in terms of develpment of new stores, services and other consumer's spaces could be a reflection of consumer written content. If through data collection I verify that in a certain region there is the incidence of great amount of comments or reviews about specific products, such as electronics, it would be interesting for companies of this sector to install stores or interactive environments with brands related to this product category in this part of city. Language styles elabored with cognitive complexity or texts using a more elaborate expressions, such as cited in the study by Newman and colleagues (2003), could be a justification for the installation of cultural environments like museums and bookstores. Likewise, the use of NLP to identify an audience that demonstrates health problems, such as depression or diabetes, may be the reason for the creation of services or public policy actions that encourage health promotion, such as awareness campaigns, and even the creation of parks or public spaces that promote exercise and social interaction.

5. Conclusions

The effort to classify a theme in relation to its main contributions in a given area of knowledge has the merit of being a guide for new research, in addition to facilitating the deepening of the theme. As seen in the course of this article, the term contagion, from medicine, has been used to explain a range of attitudes and behaviors in the sphere of consumption.

Although this article has the contribution of a brief synthesis and a consequent attempt to classify the applications of contagion in consumer behavior, it has certain limitations that may serve as a starting point for new studies.

The main limitation was to isolate the contagion from other types of phenomena that had similar characteristics, such as being present in social interactions and resulting in a proliferation of ideas and behaviors. Social learning (ZHANG et al., 2015) through the observation of the actions and behaviors of friends and people unknown to the social structure is one of them. Similarly, word-of-mouth is another phenomenon very similar to social contagion because of its character of "viralization" in the dissemination of information (BERGER; MILKMAN, 2012).

Despite the limitations, there are many possibilities of deepening and developing new research, based on the insights that came from reading the previous articles. In terms of social contagion, social media would be good contextual options to understand the motivations and explanatory mechanisms of certain common practices in the network, such as unboxing, the act in which consumers (especially influencers) take packaging from their new products to share with followers their reactions and initial feelings after seeing the product. Would not there be an emotional contagion bias behind this kind of practice? The studies of Howard and Gengler (2001) manipulated the happiness of the one who gives a gift and realized that the recipient also feels happy because there is a convergence between the emotions of the people involved in this exchange. Thus, unboking could serve as a context for manipulating other forms of emotions, such as surprise, and thereby deepen the issue of emotional contagion.

Also in terms of emotional contagion, humor could be an interesting variable for the analysis, considering that this type of contagion is concerned with understanding people's propensity to "capture" the emotions of others (HATFIELD et al., 1992). It is known that humor has a capacity to entertain and bring people closer together (MCGRAW et al., 2014). Other variables such as personality traits could also be explored more intensively by future studies.

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