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CHILDREN'S RESPONSES TO
SOCIAL ADVERTISEMENTS

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“The best ideas come as jokes. Make your thinking as funny as possible”

- David Ogilvy -

Ai miei genitori e alla mia famiglia,

A Federico,

Agli amici più cari.

ABSTRACT

A social marketing intervention is composed of several phases, and this paper focuses on the phase concerned with the promotion of social messages. Public communication campaigns are one of the instruments available in social marketing that could be used to successfully influence behaviors for the collective benefit. Public communication campaigns are defined as “purposive attempts to inform or influence behaviors in large audiences within a specified time period using an organized set of communication activities and featuring an array of mediated messages in multiple channels generally to produce noncommercial benefits to individuals and society”.

Designing an effective message is key to achieving an influence on individuals' attitudes, intentions and behaviors. The strategic approach to messages can be about the prevention/cessation or the promotion of behaviors. It is possible to decide to promote the adoption of healthy and positive practices (e.g., the consumption of fruits and vegetables, the recycle of papers, the use of condoms), or to prevent and/or ask for the cessation of unhealthy and dangerous practices (e.g., drinking alcohol, using drugs, eating junk food). Promotion messages are based on the desirability of alternative attractive behaviors that permit a gratification (e.g., if you partake in sport you will be in good shape and healthy). Conversely, prevention/cessation messages generally use fear appeals to raise awareness about the negative consequences of a detrimental behavior.

Healthy messages can be conveyed using Public Service Announcements (PSAs). In general, PSAs rely on donated media and, if properly designed and sufficiently aired to the target audience, can have an important impact on changing or preventing unhealthy habits, as well as encouraging the adoption of good practices. Unfortunately, PSAs are broadcasted less often than common commercials. Therefore, the current small quantity of PSAs shown on television is not sufficient when compared to the quantity of commercial advertisements.

A group often exposed to commercial advertisements and the related persuasive marketing techniques are children. This young target group watch a great number of commercials and it is estimated that billions of dollars per year is spent on children

specific marketing measures. Research indicates that although there is a multiplicity of factors influencing youth behaviors, advertising is partly responsible. Negative effects derived from advertisements could be the reason for, within the child's imagination, stereotypes that give a distorted vision of the real world and interpersonal relationships, as well as affect their level of aggression, sexual behavior, substance abuse, unhealthy eating, and smoking habits.

Extensive research has been undertaken that focuses specifically on commercial advertisements, with a view to determining the best strategies and instruments suitable for conveying advertising messages that attract children's attention and activate a memorization process. These strategies can be adapted to the field of PSAs to design effective social campaigns. Consequently, understanding the potential of advertising mechanisms would be fitting to employ promotional messaging, not only for commercial ends, but also more substantially for the benefit of society and general interest thus involving children and inviting them to avoid and modify any behaviors that could be detrimental to themselves and others.

Previous studies have focused on advertisements targeted at young adults and adults, yet they neglect the key role that social advertising can play in disseminating useful information, changing, or preventing unhealthy habits and encouraging children to adopt good practices. The literature on PSAs or social marketing interventions aimed at children is limited; studies on the type of appeal that is more adequate for communicating social themes directly and efficaciously to them, as well as which relations and variables related to PSAs are useful in influencing children's behavioral intention to adopt good practices are even more limited. To address this gap in the literature, three studies were conducted with Italian children aged 8 to 11.

The World Health Organization (WHO) states that an increase of childhood obesity and the number of youths smoking tobacco are both serious global issues. For this reason, two PSAs on the topic of healthy eating and two anti-smoking PSAs were chosen in the following studies.

The first study sought to understand the impact of rational and emotional appeals on children's attitude towards two PSAs that promoted eating fruits and vegetables.

The results indicated that both components played a significant role in children's preference for a social advertisement, but the emotional appeal appeared to be the preeminent. Children indicated action and adventure as one of their favorite characteristics. They also appreciated the idea that one of the PSAs they watched had been shot as if it were a film trailer and that any child could become like the protagonists by eating fruits and vegetables. However, the importance of the rational component of advertisements should not be disregarded, as the children also wanted an understandable and direct message that was not confusing. Furthermore, the research identified which singular elements of the advertisements the children appreciated.

The aim of the second study was to compare the use of the humor appeal versus the use of the fear appeal in anti-smoking PSAs for children. In particular, it was examined whether different advertisement appeals (i.e., fear or humor appeals) had different effects on children's affective reactions towards PSAs, on their beliefs about smoking, and on their behavioral intentions to smoke. The results indicated that both types of appeals could influence behavior intentions. The humor appeal was more appreciated by children for its entertainment value and for the protagonist that became an example for children to imitate. However, the fear appeal led to greater spontaneous discussions and reflections related to many important topics. Additionally, the research identified which singular elements of the advertisements the children appreciated and discussed. Both the above-cited research studies utilized a mixed methods approach. A convergent parallel design was selected that comprised of a questionnaire for the quantitative approach and a semi-structured focus group for the qualitative approach.

The third study developed a model that addresses the direct effect of the children's perceived likeability of PSAs, and the effect mediated by the positive emotions and PSA credibility on the children's behavioral intention to eat fruits and vegetables. The results showed that children's perceived likeability of PSAs had a positive effect on their behavioral intention to eat fruits and vegetables. In addition, children's perceived likeability of PSAs had a positive effect on the emotional response to PSAs which, in turn, had a positive effect on the perceived credibility of PSAs; that in turn had a

positive effect on children's behavioral intention to eat fruits and vegetables. It is interesting to note that positive emotions generated by the PSAs permitted children to ponder and believe in the content of social advertisements, and that this influenced their intention to eat more fruits and vegetables. In this third study, the data were analyzed through structural equation modeling.

These studies contribute to both theory and practice. In relation to theory, few studies have examined the effectiveness of children-targeted PSAs; instead most have focused only on the effects of commercial advertising upon children and/or adults. In relation to the practical implications, the findings are relevant for non-profit organizations, governmental institutions, and advertisers interested in creating effective social messages aimed at children. A well-designed PSA can help children to choose healthy lifestyle habits at a young age, thus benefitting them as they mature into adulthood.

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INTRODUCTION

Several definitions were adopted to explain the discipline of social marketing (Smith, 2011). Although the definitions vary, they have some concepts in common. The two following definitions are, therefore, considered:

“Social marketing is a process that applies marketing principles and techniques to create, communicate and deliver value in order to influence target audience behaviors that benefit society (public health, safety, the environment, and communities) as well as the target audience” (Kotler & Lee, 2008).

“Social marketing seeks to develop and integrate marketing concepts with other approaches to influence behaviours that benefit individuals and communities for the greater social good. It seeks to integrate research, best practices, theory, participant and partnership insight, to inform the delivery of competition sensitive and segmented social change programmes that are effective, equitable and sustainable” (iSMA, ESMA, AASM, 2013).

As indicated in these definitions, social marketing 1) focuses on the goal of influencing behavior, 2) focuses on individuals and society as targets, 3) benefits its targets and 4) relies on concepts and techniques derived from marketing and other approaches. The first point is the most important because the principal difference between commercial marketing and social marketing is that common marketing tries to sell products and services to reach a profit while social marketing wants to influence behavior to reach a benefit for society.

Although great importance is also given to the aim of informing individuals and changing their beliefs, attitudes and feelings, the relevant aspect is the influence that social marketing has on their behavior. Smith (2011) highlighted that it is possible to influence behavior in several ways. The target audience can accept a new behavior, reject an unhealthy behavior, modify a current behavior, abandon an old behavior, continue a desired behavior, and switch a behavior.

Social marketing is used in four main contexts such as health promotions (e.g., obesity, tobacco usage, HIV and AIDS, oral health, cancer, physical activity), injury prevention (e.g., seatbelts, domestic violence, drinking alcohol), environmental protection (e.g., forest destruction, pollution, composting of waste, water conservation) and community mobilization (e.g., organ donation, blood donation, voting, adoption) (Cheng et al. 2011). The actors that works in these contexts can be governments, non-profit organizations, private sectors, media organizations, communities, and volunteers, as well as companies through social initiatives. Kotler et al. (2012) listed six forms of corporate initiatives: corporate cause promotions (resources to increase awareness and concern for social causes), cause-related marketing (linkings monetary contributions to product sales), corporate social marketing (business resources that support a behavior change campaign), corporate philanthropy (direct contributions to a charity or social causes), community volunteering (corporations encourage employees to volunteer), and socially responsible business practices (discretionary business practices and investments that a corporation adopts to support social causes).

A social marketing intervention is composed of several phases and this research is focused on the phase of promotion within the strategic marketing mix -the 4Ps-. Lee and Kotler (2015) explained that promotions are persuasive communications designed and delivered to inspire the target audience to action. Rice and Atkin (2009) defined public communication campaigns as “purposive attempts to inform or influence behaviors in large audiences within a specified time period using an organized set of communication activities and featuring an array of mediated messages in multiple channels generally to produce noncommercial benefits to individuals and society”. Communication channels include advertising, printed materials, public relations, social media, events, and others.

Public communication campaigns can be divided into individual behavior change campaigns and public will campaigns (Coffman, 2002). The former are campaigns that try to change problematic or unhealthy individuals’ behaviors, or promote behaviors that benefit individuals and the society. The latter type are campaigns that attempt to raise awareness about a social problem to obtain policy actions.

Designing an effective message is key to achieving an influence on individuals' attitudes, intentions, and behaviors. The strategic approach to messages can be about the prevention/cessation or the promotion of behaviors (Atkin & Rice, 2012). It is possible to decide to promote the adoption of healthy and positive practices (e.g., the consumption of fruits and vegetables, the recycle of papers, the use of condoms), or to prevent and/or ask for the cessation of unhealthy and dangerous practices (e.g., drinking alcohol, using drugs, eating junk food). Promotion messages are based on the desirability of alternative attractive behaviors that permit a gratification (e.g., if you do sport you will be in good shape and healthy). Conversely, prevention/cessation messages generally use fear appeals to raise awareness about the negative consequences of a detrimental behavior.

Another aspect to consider is the message content that can be informational or persuasive (Atkin & Rice, 2012). The informational message can raise consciousness about a topic or provide simple information that stimulate individuals to search for more detailed content. The aim is to sensitize persons, stimulate communication, give new information, create recognition, and give importance to the problem. In addition, this type of message can also present rich instructions related to how one can take the necessary actions. Consequently, messages try to educate the audience with in depth knowledge and can encourage personal efficacy. However, most campaigns adopt persuasive strategies by emphasizing the reason a person should adopt or avoid certain behaviors.

Persuasive messages use audience's values to influence its beliefs, attitude, intentions, and behaviors. The strategies adopted depend upon the choice of the appeal, which can stimulate a person's mindset toward the content. The appeal is the way the message is presented; it is the approach to create a distinctive and persuasive claim. There are many types of appeals, but the most important include:

- Rational vs emotional (Bagozzi & Moore, 1994; Liu & Stout, 1987; Mortimer, 2008; Page & Brewster, 2007; Zhang et al. 2014).
- Positive vs negative (Atkin, 2001; Bagozzi & Moore, 1994; Brennan & Binney, 2010; Eisend, 2009; Gardner & Wilhelm, 1987).

Rational appeals are based on the idea that persons draw information from message contents about the quality, performance, and characteristics of products/services, or they alternatively, draw useful information about their health and good practices so that they become aware of particular issues and feel the need to act, since it seems logical and necessary. Emotional appeals generate positive or negative feelings that the consumer will associate with the message. This type of appeal acts on individual's psychological and social needs for accepting or rejecting a behavior.

Positive appeals tend to highline the positive outcomes of performing the suggested behavior. As Atkin (2001) stated, "on the psychological dimension, messages might promise such outcomes as gaining control over one's life, positive self-image, attaining one's goals, feeling secure, or acting intelligently". However, there is also a social dimension such as gaining approval and respect, being a model, being a part of the peer group, and many others. These messages present a gain-framed by emphasizing only the benefits of the desired practices. On the contrary, a negative tone is termed as a "fear" or "threat" appeal, and is defined as "a persuasive message that attempts to arouse the emotion of fear by depicting a personally relevant and significant threat and then follows this description of the threat by outlining recommendations presented as feasible and effective in deterring the threat" (Witte, 1994, p.114).

The fear or threat appeal is composed of a threat component and a coping component (Mongeau, 2012; Shen & Dillard, 2014). Protection motivation theory (Rogers, 1975) proposed that the threat component is subdivided into a description of the severity of the issue (i.e., a description of negative and undesirable consequences), and the susceptibility (or vulnerability) of the audience (i.e., the personal risks). Another aspect of the threat appeal is the reward. Rewards refer to the positive aspects of starting or continuing the unhealthy behavior. The coping component is subdivided into response efficacy (i.e., the idea that the recommended behavior will alleviate the health threat), and self-efficacy (i.e., the audience's ability to perform the recommended behavior). The coping component is influenced by the response costs: the costs of putting the recommended behavior into practice. Negative appeals are based

on loss-framed incentives and generally show the negative consequences of a behavior using vivid images.

Several messages features contribute to the process that permits an influence on individuals. It is not possible to know how social messages increase good practices among persons, as we do not examine every factor of these messages and the relationship between factors in this process. Atkin & Rice (2012) specified five major factors:

- Credibility that is an individual's judgment of the truthfulness and believability of the content of communication. In literature, the idea of credibility was also conceptualized and measured in other forms, such as the credibility of endorsers, advertisers and companies, the credibility of the channel used to convey messages, and the credibility of advertising in general (Appelman & Sundar, 2016; Soh et al., 2009; Verma, 2014).
- Engagement/likeability that is a favorable response to a content considered entertaining, interesting, and attractive.
- Understandability that is a comprehensible and sufficiently detailed presentation of the content.
- Motivational and persuasive incentives that are the strategies to persuade individuals (e.g., different type of appeals).
- Relevance that is the degree of importance of the content for a person and how the person considers the recommendation applicable to his situation.

Individuals respond to messages differently and a message can elicit three types of evaluative responses: cognitive, affective, and behavioral (Eagly & Chaiken, 2007). The cognitive response concerns associations between the message and the attributes that a person ascribe to it (i.e., perceptions, concepts, and beliefs). The affective response includes emotions, feelings, and physiological responses to the message. The behavioral response refers to actions and intentions to act toward the message. The simultaneous presence of all these three responses is not essential, as individual responses can be one or a mix of them (Eagly & Chaiken, 2007).

Moreover, the individual response depends on the predisposition of a person toward the topic and the behavior suggested in the campaign. Some individuals are favorably predisposed or receptive to respond to the message, while others cannot be susceptible to the problem, can reject and counterargue the message and refuse the applicability of the good practices to themselves. Atkin (2001) suggested that “the central determinant of receptive vs. resistant responses is the benefit-cost ratio of the particular behavior being promoted or discouraged in the campaign”. Accepting, refusing, or changing a behavior costs time and money, as well as physical, psychological, and social efforts. In addition, the audience must consider whether the advantages of certain practices are high or relatively low.

Social campaigns need to be projected last over long period of time to be effective, since individuals require constant persuasion:

“newcomers constantly move into the priority audience, backsliders occasionally revert to prior misbehavior, evolvers take their time in gradually adopting the recommend practice, vacillators need regular doses of reinforcement to stay the course, and latecomers finally give up bad habits and become receptive to the campaign” (Atkin & Rice, 2013).

Salmon and Murray-Johnson (2012) explained that campaign effectiveness is measured through a wide range of outcomes from individual to social and political levels. The first type of effectiveness is the definitional effectiveness that concerns the definition of a phenomenon as socially relevant and important for the public and media agenda. The second type is the ideological effectiveness that relates to the choice to communicate the problem to an individual or a social level. The individual level campaigns are design to modify personal beliefs, attitudes, intentions, and behavior, while in the social level the aim is to influence governments to develop programs and policies. The third type is the political effectiveness that is the capacity of governments to create large-scale and effective campaigns to solve problems and inspire confidence in political institutions. The fourth type is the contextual effectiveness that concerns the different type of solutions and impacts derived from different contexts. Solutions can be derived from three contexts: engineering solutions (i.e., the development of

new technologies to remedy a problem), enforcement solutions (i.e., the use of laws, coercion, and acts of authorities), and educational solutions (i.e., the modification of beliefs, attitudes, and behaviors through education). The fifth type is the cost-effectiveness that considers cost avoidance or minimization, cost benefits, and cost consequences. The last type is the programmatic effectiveness that measures the effectiveness of a campaign by comparing the predetermined objectives to the outcomes achieved.

Many behavioral theories and models developed within the discipline of psychology are used and applied into social marketing and social communication campaigns (French, 2017). These include:

- **Theory of reasoned action/theory of planned behavior** (Figure 1) (Ajzen, 1985; Fishbein & Ajzen, 1975). The theory of reasoned action was based on the idea that persons are rational beings and that decisions about their behavior are always under their control. The theory explained that if persons have a positive attitude toward a behavior and think that significant others' beliefs about the behavior (i.e., subjective norms) are favorable, this influences their behavioral intentions and then their real behavior.

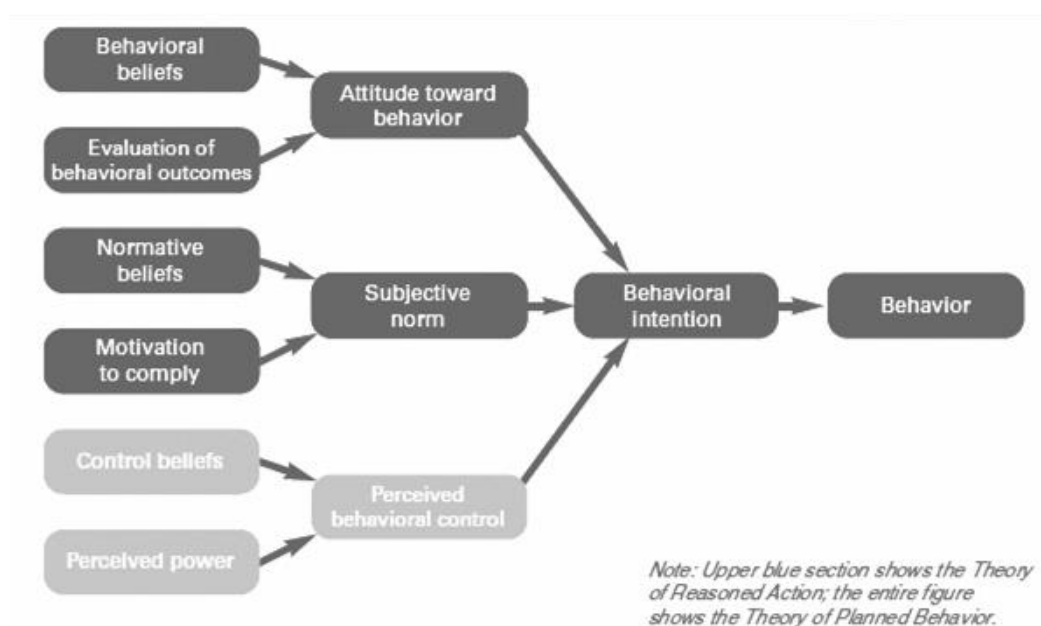


Figure 1 - Theory of reasoned action/theory of planned behavior. From *Theory at a glance: a guide for health promotion practice*, (p.18), by U.S. Department of Health and Human Services & National Institute of Health, 2005.

Recently, the theory of planned behavior was developed by adding a third factor that is beyond individual control (i.e., perceived behavioral control). This factor refers to the degree of control a person perceives to have to perform a behavior.

- **Social Cognitive Theory** (Bandura, 1986). Social cognitive theory explains human behavior in terms of triadic reciprocal causation. In this view, personal factors (i.e., cognitive, affective, and biological events), environmental factors, and behavior continually interact. This way, people are producers and the product of a social system. In this model, an important role is given to personal capabilities, such as the capacity to symbolize (i.e., the use of a symbol permits people to process information and extract meaning from the environment), have forethought (i.e., the capacity to anticipate future events), commit to vicarious learning (i.e., the capacity to acquire knowledge, competencies and abilities by observing others), self-regulation (i.e., the capacity to set challenging goals and evaluate results), and self-reflection (i.e., self-evaluation). Observational or vicarious learning starts with the observer giving attention to a specific social behavior (attention). This behavior and its consequences are converted into symbols (retention) and are reproduced into similar contexts and adjusted on the basis of the feedbacks received (production). Finally, the observer decides to reenact a behavior that results in valued outcomes and self-satisfaction (motivational process). Another aspect of personal factors is the concept of self-efficacy: that is a personal belief about the capacity to perform a behavior. Self-efficacy is influenced by mastery experiences (i.e., personal successes and failures), vicarious experiences (i.e., others' success and failures), social persuasion (i.e., the influence of others) and somatic and emotional states (i.e., emotional responses and physical conditions).
- **Stages of changes or transtheoretical model** (Prochaska & DiClemente, 1983). This model proposes behavioral changes as a sequence of stages corresponding a person's readiness to adopt a behavior. The process is not linear as persons can enter and exit from the same stage many times. It is important to

understand where the target is situated to develop the right intervention. People can move on five stages as in Figure 2.

Stage of Change	Description
1. Precontemplation	Target audiences do not see the proposed behavior as relevant to their needs and wants because they are unaware of the opportunity or believe it does not apply to them.
2. Contemplation	Target audiences consider or contemplate doing the behavior.
3. Preparation	Target audiences develop an intention to perform the behavior in the near future and attempt to adopt the behavior.
4. Action	Target audiences move to action because they perceive the behavior to have greater benefits, lower costs, increased social pressures, and more behavioral control than current behavior.
5. Maintenance	Target audiences maintain the behavior because they feel rewarded and are reminded about the benefits of the action.

Figure 2 - Stages of changes or transtheoretical model. From “Public communication campaign evaluation”, (p.19) by J. Coffman, 2002, Retrieved from: <https://pdfs.semanticscholar.org/9fcb/6acfa176c4f1c1205d7c74c39c48f9b31651.pdf>

- **Health belief model** (Rosenstock, 1966). This model suggests that the idea of being personally threatened by negative consequences and the belief that the recommend behavior deters the threat influence and predict the likelihood of a behavior. There are four important components in this model:
 - Perceived susceptibility (i.e., the personal risks)
 - Perceived severity (i.e., the individual’s assessment of negative and undesirable consequences).
 - Perceived barriers (i.e., individual’s idea of factors that can influence the adoption or rejection of a behavior).
 - Perceived benefits (i.e., individual’s assessment of the positive consequences of adopting the behavior).

As showed in Figure 3, the model includes other factors that can motivate an individual behavior change.

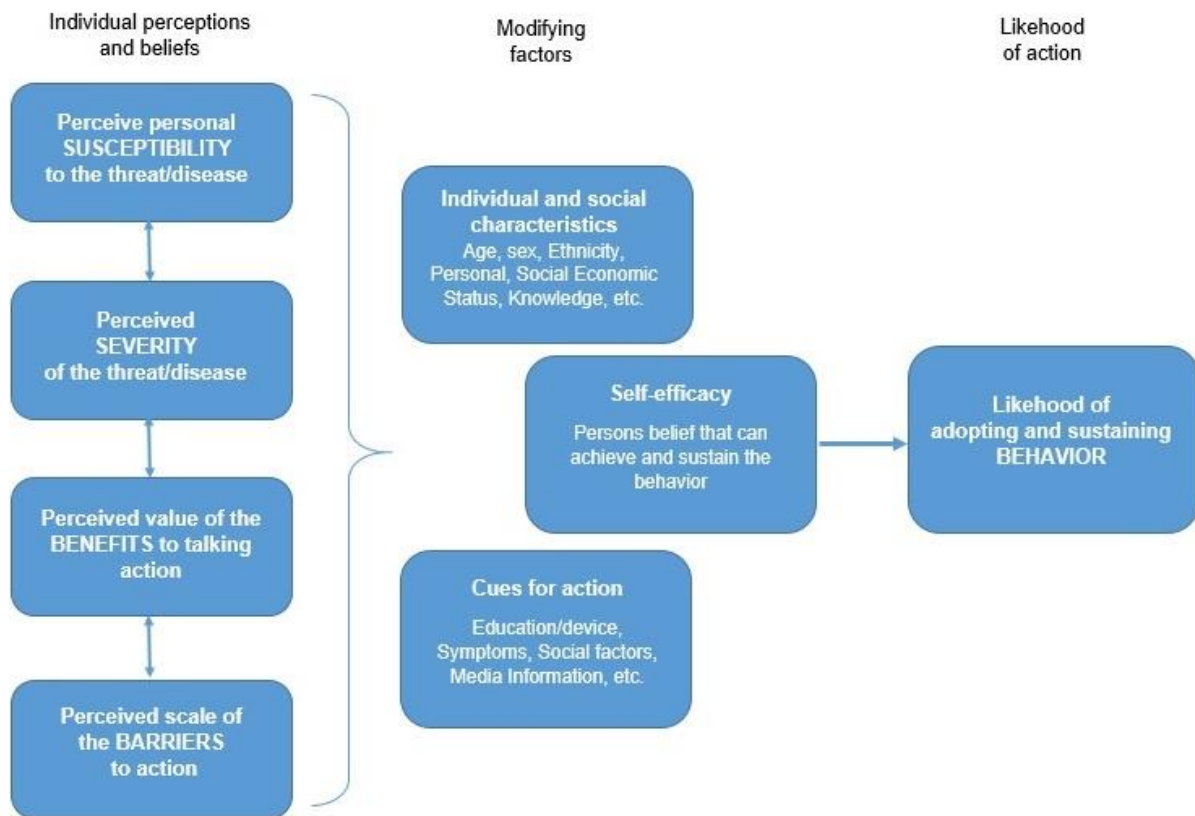


Figure 3 - Health belief model. From *Social marketing and public health: Theory and practice* (p. 101), by J. French, 2017, *New York, NY: Oxford University Press*.

- **Drive model** (Hovland, 1953). This model considers fear as a driving state. A persuasive message can arouse a certain level of fear, so much that people try several strategies to reduce the emotional tension. Whether the strategy (i.e., the recommended actions and behaviors of the message) is successful in reducing the drive state, the probability of its repetition in the future is high. On the contrary, whether the recommendations fail to reduce fear, people attempt other strategies such as minimizing the message or ignoring the problem, and this does not permit a behavior change. Hovland (1953) hypothesized a curvilinear (i.e., inverted-U shaped) relationship between the level of fear and the persuasive effect of the message. An increasing level of fear intensifies the behavioral change until one reaches a point beyond that and the opposite happens. In other words, a moderate level of fear produces attitude and behavioral changes.

- **Parallel response model** (Leventhal, 1970). The parallel response model proposes two processes that work in parallel and independently to reduce fear: fear control and danger control. Fear control consists of affective responses to control fear. Due to the fear, persons inhibit the elaboration of the message and have defensive reactions. Since they do not focus on the message and do not accept recommendations, the behavioral change is difficult and improbable. Danger control is a problem-solving process through which persons analyze the benefits and costs of adopting a behavior; whether they judge the information of the message positively, they accept recommendations. Consequently, this process is correlated with attitude and behavioral changes.
- **Extended parallel process model** (Figure 4) (Witte, 1992). Witte (1992) balanced cognitive and affective responses by combining elements from the drive model, the parallel response model, and the protection motivation theory. When the threat component (i.e., severity + susceptibility) of the message is weak, people do not need to adopt a behavior because they are unmotivated. Whether the threat component is high, but the coping component (i.e., response efficacy + self-efficacy) low, persons experience fear and engage in fear control processes, such as defensive reactions and the rejection of the message. Under this emotional condition, attitude and behavioral changes are improbable. Conversely, when both threat and coping components are strong, persons use cognitive processes and elaborate message recommendations to identify an appropriate solution (i.e., danger control process). The acceptance of the recommendations predicts attitude, intention and behavioral changes.
- **Stage model of fear appeals** (De Hoog et al. 2007). This model is recent and relatively untested. It suggests that are two appraisals occurring in stages: a threat appraisal called the primary appraisal, followed by a coping appraisal called the secondary appraisal. The primary appraisal elicits negative affect (i.e., negative bias), while the secondary appraisal positive affect (i.e., positive bias) because it concerns recommendations to alleviate the threat. When both the perceived severity and susceptibility (i.e., components of threat) are strong, the

processing of the message is systemic. On the contrary, when they are weak, the processing of the message is heuristic. The perfect situation is when the threat component and the coping component (i.e., response efficacy + self-efficacy) are strong. Here, individuals feel attacked and in danger. Therefore, they start to process message information, counterargue, and attempt to find logical flaws in arguments. Failing to find such flaws, the coping component is positively evaluated, and persons are more likely to accept recommendations to alleviate the threat.

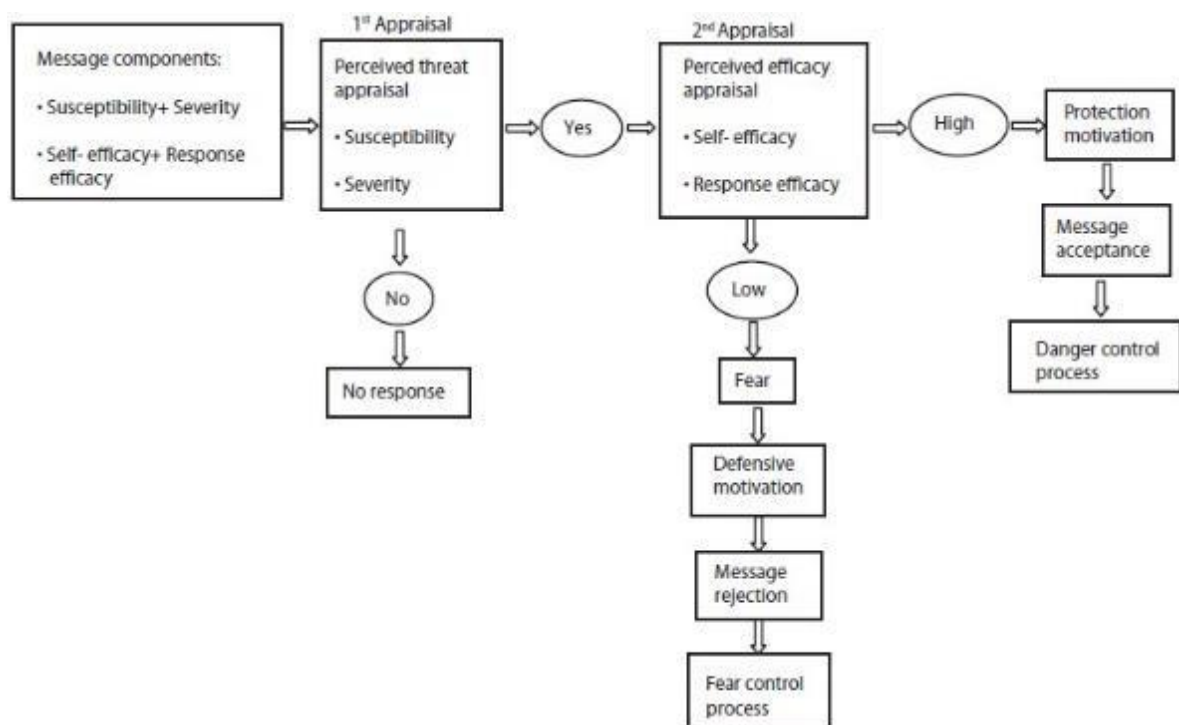


Figure 4 - Extended parallel process model. From “The effect of preventive educational program in cigarette smoking: extended parallel process model”, by Z. Gharlipour et al., 2015, *Journal of Education and Health Promotion*, 4(4), 18-24.

The remainder of this paper is organized as follows. First, a review of the international literature on the persuasive marketing techniques used in commercial advertisements to children, and the related negative impact on their behavior, is discussed. Knowing the potential of advertising mechanisms, it would seem fitting to employ promotional messaging, not only for commercial ends, but more substantially for the benefit of

society and general interest, thus, involving children and inviting them to avoid and modify any behaviors detrimental to themselves and others. Successively, three studies concerned with PSAs aimed to children are presented. The first study seeks to understand the impact of rational and emotional appeals on children's attitudes toward two PSAs that promoted eating fruits and vegetables. The second study examines the different effects that fear and humor appeals in anti-smoking advertisements for children have on their affective reactions toward the advertisements, on their beliefs about smoking, and on their behavioral intentions to smoke. Both research studies are mixed methods studies conducted with children aged 8 to 11. A convergent parallel design was selected that comprised of a questionnaire for the quantitative approach and a semi-structured focus group for the qualitative approach. The third study develops a model that addresses the direct effect of the children's perceived likeability of PSAs, and the effect mediated by the positive emotions elicited by PSAs and the PSA credibility on the children's behavioral intention to eat fruits and vegetables. In the final study, data was analyzed through structural equation modeling.

REFERENCES

- Ajzen, I. (1985). From intentions to actions: a theory of planned behaviour. In J. Kuhl & J. Beckman (Eds), *Action-control: from cognition to behaviour* (pp.11-39). Heidelberg, Ge: Springer.
- Appelman, A., & Sundar, S. S. (2016). Measuring message credibility: Construction and validation of an exclusive scale. *Journalism & Mass Communication Quarterly*, 93(1), 59-79.
- Atkin, C. (2001). Impact of public service advertising: research evidence and effective strategies. Retrieved from: http://www.ibrarian.net/navon/paper/Impact_of_Public_Service_Advertising__Research_Ev.pdf?paperid=19687055
- Atkin, C. K. & Rice, R. E. (2012). *Theory and principles of public communication campaigns*. In R. E. Rice & C. K. Atkin (Eds), *Public communication campaigns* (pp. 3-19). Thousand Oaks, CA: Sage Publications.
- Atkin, C. K. & Rice, R. E. (2013). Advances in public communication campaigns. In E. Scharrer (Eds), *The international encyclopedia of media studies* (Vol. 5: media effects/media psychology, pp. 526-551). London, UK: Wiley-Blackwell.
- Bagozzi, R. P., & Moore, D. J. (1994). Public service advertisements: Emotions and empathy guide prosocial behavior. *The Journal of Marketing*, 58(1), 56-70.
- Bandura, A. (1986). *Social foundations of thought and action: a social cognitive theory*. Englewood Cliffs, NJ: Prentice Hall.
- Brennan, L., & Binney, W. (2010). Fear, guilt, and shame appeals in social marketing. *Journal of Business Research*, 63(2), 140-146.
- Cheng, H., Kotler, P., & Lee, N. (2011). *Social marketing for public health: global trends and success stories*. Sudbury, MA: Jones & Bartlett Learning.
- Coffman, J. (2002). *Public communication campaign evaluation*. Retrieved from: <https://pdfs.semanticscholar.org/9fcb/6acfa176c4f1c1205d7c74c39c48f9b31651.pdf>
- De Hoog, N., Stroebe, W., & de Wit, J. B. F. (2007). The impact of vulnerability to and severity of a health risk on processing and acceptance of fear-arousing communications: A meta-analysis. *Review of General Psychology*, 11, 258–285.
- Eagly, A. H., & Chaiken, S. (2007). The advantages of an inclusive definition of attitude. *Social Cognition*, 25(5), 582-602.
- Eisend, M. (2009). A meta-analysis of humor in advertising. *Journal of the Academy of Marketing Science*, 37(2), 191-203.
- Fishbein, M. & Ajzen, I. (1975). *Belief, attitude, intention and behaviour: an introduction to theory and research*. Reading, MA: Addison-Wesley.

- French, J. (2017). *Social marketing and public health: Theory and practice*. New York, NY: Oxford University Press.
- Gardner, M. P., & Wilhelm Jr, F. O. (1987). Consumer responses to ads with positive vs. negative appeals: Some mediating effects of context-induced mood and congruency between context and ad. *Current Issues and Research in Advertising*, 10(1-2), 81-98.
- Gharlipour, Z., Hazavehei, S. M., Moeini, B., Nazari, M., Beigi, A. M., Tavassoli, E., Heydarabadi, A. B., Reisi, M. & Barkati, H. (2015). The effect of preventive educational program in cigarette smoking: Extended parallel process model. *Journal of Education and Health Promotion*, 4(4), 18-24.
- Hovland, C., Janis, I., & Kelly, H. (1953). *Communication and persuasion*. New Haven, CT: Yale University Press.
- iSMA, ESMA & AASM. (2013). Consensus definition of social marketing. Retrieved from: http://www.i-socialmarketing.org/assets/social_marketing_definition.pdf
- Kotler, P. & Lee, N. R. (2008), *Social marketing: influencing behaviors for good*. Thousand Oaks, CA: Sage Publications.
- Kotler, P., Hessekiel, D., & Lee, N. (2012). *Good Works!: Marketing and Corporate Initiatives that Build a Better World... and the Bottom Line*. Hoboken, NJ: John Wiley & Sons.
- Lee, N. R., & Kotler, P. (2015). *Social marketing: Changing behaviors for good*. Thousand Oaks, CA: Sage Publications.
- Leventhal, H. (1970). Findings and theory in the study of fear communications. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 5, pp. 119–186). New York, NY: Academic Press.
- Liu, S. S. & Stout, P. A. (1987). Effects of message modality and appeal on advertising acceptance. *Psychology & Marketing*, 4(3), 167-187.
- Mongeau, P. A. (2012). Fear appeals. In *The SAGE handbook of persuasion: developments in theory and practice* (pp. 184-199). Thousand Oak, CA: SAGE Publications Inc
- Mortimer, K. (2008). Identifying the components of effective service advertisements. *Journal of Services Marketing*, 22(2), 104 - 113.
- Page, R. M., & Brewster, A. (2007). Emotional and rational product appeals in televised food advertisements for children: analysis of commercials shown on US broadcast networks. *Journal of Child Health Care*, 11(4), 323-340.
- Prochaska, J. & DiClemente, C. (1983). Stages and processes of self-change of smoking: toward an integrative model of change. *Journal of Consulting and Clinical Psychology*, 51, 390-395.

- Rice, R. E., & Atkin, C. K. (2009). Public communication campaigns: Theoretical principles and practical applications. In J. Bryant & M. Oliver (Eds.), *Media effects: Advances in theory and research* (3rd ed., pp. 436–468). Hillsdale, NJ: Lawrence Erlbaum.
- Rogers, R. W. (1975). A protection motivation theory of fear appeals and attitude change. *The Journal of Psychology*, *91*(1), 93-114.
- Rosenstock, I. M. (1966). Why people use health services. *Milbank Memorial Fund Quarterly*, *44*(3), 94-112.
- Salmon, C. T., & Murray-Johnson, L. (2012). Communication campaign effectiveness: critical distinctions. In R. E. Rice & C. K. Atkin (Eds), *Public communication campaigns* (pp. 99-112). Thousand Oaks, CA: Sage Publications.
- Shen, L., & Dillard, J. P. (2014). Threat, fear, and persuasion: review and critique of questions about functional form. *Review of Communication Research*, *2*(1), 94-114.
- Smith, B. (2011). *Defining social marketing*. In N. R. Lee & P. Kotler (Eds), *Social marketing: influencing behaviors for good* (pp. 2-31). Thousand Oaks, CA: Sage Publications.
- Soh, H., Reid, L. N., & King, K. W. (2009). Measuring trust in advertising. *Journal of Advertising*, *38*(2), 83-104.
- U.S. Department of Health and Human Services & National Institute of Health (2005). *Theory at a glance: a guide for health promotion practice*.
- Verma, I. (2014). Advertising credibility: a review of literature. *International Interdisciplinary Research Journal*, *2*(1), 189-199.
- Witte, K. (1992). Putting the fear back into fear appeals: The extended parallel process model. *Communications Monographs*, *59*(4), 329-349.
- Witte, K. (1994). Fear control and danger control: A test of the extended parallel process model (EPPM). *Communication Monographs*, *61*(2), 113-134.
- Zhang, H., Sun, J., Liu, F. & Knight, J. G. (2014). Be rational or be emotional: advertising appeals, service types and consumer responses. *European Journal of Marketing*, *48*(11/12), 2105 - 2126.

- CHAPTER 1 -
THE IMPACT OF COMMERCIAL COMMUNICATION ON
CHILDREN'S BEHAVIOR: A LITERATURE REVIEW AND
OPPORTUNITIES FOR FUTURE RESEARCH

1. INTRODUCTION

The media represents the ways and means by which minors obtain knowledge and information to help them adapt to the lifestyles endorsed by commercial advertising and shared by their peers. Such media is one of the most powerful ways of influencing the buying choices and consumer habits of children (especially that of television ads: Hastings et al., 2003; Kunkel et al., 2004), in addition to influencing their attitudes and behaviors. Children are the current consumers as well as those of the future.

They are in fact the most attractive target on the market today. They are easier than teenagers, being “more approachable and less cynical” than adolescents, “more accessible and open to new ideas” (Linn, 2004). Furthermore, their opinions are held in high regard by their parents in relation to the purchases that they have to make (Buijzen & Valkenburg, 2003; Nicholls & Cullen, 2004; Ebster et al., 2009). For these reasons, an ever greater number of marketing and advertising strategies are aimed at them, in order to make them loyal to a given brand from birth and, over time, habitual buyers of the same brand (Valkenburg & Cantor, 2001).

In this study we will provide a brief survey of the international literature on the impact of television advertising on children's behavior. Our decision to focus on television ads is due to the fact that television is the media most used by children, and is especially well-suited to promote techniques of persuasion. But such a decision is also triggered by the fact that there has been up to now too little research exploring the phenomenon of multitasking with methodological precision (the trend is now that of watching television while simultaneously surfing the web on the computer, or tablet, or smart phone).

1.1 The entity of the phenomenon

Every year, 250 billion dollars is invested in advertising for the sale of products representing over 900,000 trademarks (Goodman, 1999). A large slice of these investments is destined for advertising directed at children, such that the U.S. alone spends around 10 billion dollars on average each year only on television ads aimed at this target (Schor & Ford, 2007).

The reason why children have become the new target is the ever-growing spending power that they have been allowed (Gunter et al., 2005): American minors under the age of 12 spend over 25 billion dollars per year. Moreover, their parents spend around 200 billion dollars annually on purchases influenced by their own children's tastes and suggestions (Quart, 2003; Span, 1999). All this translates into a huge number of television commercials to which every child is potentially susceptible: in the U.S. there are 40,000 commercials which children can see on television over a year, in the UK there are 18,000, while in China there are 16,000 (Mason, 2012).

1.2 Media, a dominant force in children's lives

Children are spending more and more time in front of media devices. Recent data reveals that youth between the ages of 8 and 18 spend over 7 and a half hours daily with their devices (Strasburger et al., 2010). Besides this, more than one third of minors under the age of 8 live in homes where the television is left on even if no one is there to watch it, and 42% of them have their own television set in their bedroom (Strasburger et al., 2012).

Television viewing dominates media consumption among children mainly because new ways of watching have been recently introduced, namely by means of the internet and the smart phone. These newer forms of media use are becoming more and more important: 84% of those between the ages of 8 and 18 have internet access and surf the web one and a half hours a day. They also play video games online (Rideout et al., 2010). Moreover, one must keep in mind that minors use more than one communication device at a time, thus increasing their exposure to commercial messaging.

As we will see, this enormous quantity of time that children spend with their media devices entails a high exposure to advertising and provides ample opportunity to influence their attitudes, beliefs, and behaviors, so much so that these children become prone to exhibiting aggression, engaging in precocious sexual activity, smoking, consuming alcohol, experiencing eating disorders and depression (Committee on Communications, 2006).

1.3 Persuasive marketing techniques in television advertisements to children

Advertising takes advantage of specific characteristics of children, such as a greater tolerance to commercials and the ability to memorize, in order to persuade them to buy. The text of the ad deliberately uses standardized features, as well as a series of marketing techniques to make the promotional message effective and produce a positive attitude toward the brand being advertised. To all this we can add that the television medium itself supports these persuasive techniques because it requires a high level of concentration, due to the quick flashing of the images and to the continuous variations in the volume. The brevity of the television sequences does not allow children to reflect on what is being broadcast, and their attention remains alert throughout, in so far as all of their sensory organs are simultaneously engaged. Ultimately, one must consider the fact that television elicits a high level of emotional involvement.

Numerous studies (Maher et al., 2006; Kelly et al., 2008; Hebden et al., 2011; Boyland et al., 2011) have produced results, all unanimous in identifying what are the main strategies that create a commercial message able to attract the attention of children and trigger a memorization process:

- the use of fantastic situations;
- the advertisement of the product's qualities as incredible, creating the illusion that it can promote special abilities or super powers;
- the use of cartoon characters or celebrities;
- the use of other children as protagonists in the commercials in order to facilitate the identification process;

- the use of rapid movements of the camera, many scene changes, special shots, music, plays on words, sounds etc.;
- the transmission of emotional messages rather than of boring information which may also be difficult to understand.

Other research (Linn, 2004; Schor, 2005) has shown that promotional messaging penetrates into the language and the thought processes of the child in certain ways: 1- a space-time compression (the promotional message is condensed into few words and a short time); 2- a simplicity of situations (the settings are often familiar and recognizable); 3- a simplicity of the advertisement text (there are few words, which are repeated and associated with images, allowing for memorization); 4- an attractiveness of the proposed models (they promote attitudes that the child wishes to imitate and make his/her own so that he/she will feel part of the group).

1.4 Children's ability to understand the persuasive intent

Many studies (Valkenburg & Cantor, 2001; Moondore et al., 2009; Carter et al., 2011; Blades et al., 2013) have been conducted to evaluate the ability of children to understand the persuasive intention of the advertising messages.

The following data is what has emerged from this research: already at age six, children are capable of differentiating a commercial from the television programs, of comprehending the relationship between the message and the product, and of understanding the characteristics of an advertisement from a formal standpoint; however they do not understand its persuasive intent. Children perceive that the commercial is dealing with a subject and its special characteristics, but they consider it simple information and cannot see that what is being shown to them is made for the purpose of selling the product.

In the 5 to 8 age-group, the children's concentration on the ad is intense, and their preference is for the humor and the repetition of the words and/or the funny phrases. The commercials that target this group focus on familiar themes presented in an amusing way. Furthermore, since the youngest are by nature curious about the world around them, the advertisers tend to create commercials that give information and

explanations. At this age there already exists a differentiation between boys and girls: the first are more interested in adventure stories, violence, and monsters, while the second prefer romantic stories. Both consider that programs and commercials with too friendly and/or familiar protagonists are boring and childish. The 5 to 8 age-group represents a transition period in which the subjects are starting to understand the difference between truth and fiction, and yet, there are still cases where the fiction seems so real as to be mistakenly taken as such.

In the 8 to 12 age-group, the ability to comprehend various messages increases: from this age, children begin to trust commercials much less. They often change channels when they appear, because they are starting to understand their persuasive intention. Moreover, there is an apparent general change in taste in this group. And so commercials intended for them get more realistic. These children are becoming very critical if the characters in the commercial do not look or sound as they would in the real world. Since many of childhood's beloved characters are now too unreal, the children in this older age-group become attached to real-life "heroes", such as famous athletes, singers, and actors. Information gleaned from advertising is selectively absorbed on the basis of personal interest. This audience no longer listens to everything indiscriminately. They pay a growing attention to details and product quality, and become more adept at comparing and criticizing the goods displayed in the ads. Pre-adolescents develop a strong sense of group-belonging and they become especially sensitive to the opinions and judgements of their peers in terms of what is considered fashionable or not. Consequently, they lose interest in more childish toys, and they exhibit a greater interest in cooler, more socially functional merchandise related, for instance, to music or sports. Being so attracted to everything that is "hot" and trendy, they become more and more loyal to specific brands.

2. THE IMPACT OF TELEVISION ADVERTISING ON CHILDREN'S BEHAVIOR

2.1 Violence in children's television advertising

It has been proved that continuously watching violent behavior leads to aggression in the viewer (Strasburger, 2004, 2012; Browne & Hamilton-Giachritsis, 2005) who is then inspired to reproduce what is observed, and to believe that force and violence

are acceptable and appropriate for resolving problems. Furthermore, more exposure to violent stimuli induces primitive reactions of anger – and, in general, negative emotions – elevating levels of de-sensitization (a reduced emotional response to violence), of tolerance for violence in real life, and lack of inhibition toward aggression (Council on Communications and Media, 2010). This said, in terms of children, the decisive mediating function of the family must not be forgotten (Gentile et al., 2014): if the family environment plays the role of filter, by monitoring and explaining the content in commercials, the risk that the child will behave aggressively decreases significantly (An & Lee, 2010).

Televised advertisements, aimed at the youngest age brackets, broadcast violent and grisly scenes on a daily basis: commercialization of violence has now become a common phenomenon (Linn, 2004; Strasburger, 2012). In fact, in order to reach the youngest, there exist commercials that advertise toys and items linked to television programs or video games belonging to categories prohibited to minors - advertising that, in order to reach their objective of getting children to buy their products, describes aggressive and violent behaviors as fun, justifiable, and without consequences.

To get an idea of the size of the phenomenon, we shall briefly discuss two very pervasive categories in the advertising directed toward children: video games and the merchandise linked to wrestling.

Video games dominate the sales volume in the toy category, and the violent ones are the most popular (Anderson et al., 2007; Linn, 2004; Schor, 2005). Moreover, 89% of all videogames contain violent scenes (Glaubke et al., 2001). A recent study has revealed that “half of all video games contain violence, including more than 90% of games rated appropriate for children 10 years or older (E101 and T ratings).

Video games can mimic sexual assault (‘RapeLay’) or the Columbine massacre (‘School Shooter’), allow the player to torture enemies (‘Soldier of Fortune’), play ‘fetch’ with dogs chasing the heads of slaughtered victims (‘Postal 2’), cut victims in two from the crotch up with a chainsaw (‘MadWorld’), or just brutally murder people (‘Manhunt’)” (Strasburger et al., 2012).

When analyzing the advertising for these video games, one recognizes two main features: 1) it attempts to concentrate all the violence of the story in the few minutes' length of the ad, 2) it displays a montage of the most violent and heroic scenes; the reason behind this is the will to lure the viewer to buy.

Furthermore, thanks to technological advances and to the ever-growing amount of money invested in the sponsorship of such products, the television commercials for these video games are true blockbusters, which appeal to emotionalism and the desire to discover what happened and why it happened, as when, for instance, the viewer sees before him a post-apocalyptic landscape.

As previously stated, even if the commercials advertise a product directed at an older age-group (for example "Mature 17+" or "Adults Only 18+"), they are broadcasted within the programming time slotted for children. The question arises: how can a child resist such an emotionally-charged and captivating commercial? How can a child resist a video game (Call of Duty: Ghosts - Activision) commercial that ends with a sentence like: "There's a Soldier in all of us"?

It should not surprise that various studies (Gentile et al., 2004; Anderson et al., 2007, 2010) have revealed that the children who spend more time playing violent video games were at greater risk to develop aggressive behavior, aggressive cognition, aggressive affect, physiological arousal, and to have a decrease in empathy and in pro-social behavior. Other research suggests that expertise in video game playing is particularly associated with reduced valence-concordant emotional expressivity (Weinreich et al., 2015).

Another widespread item getting air-time during the time-slot dedicated to children is the merchandising associated with the Vince McMahon's World Wrestling Entertainment (WWE), the most lucrative professional wrestling organization in North America, a quarter of whose profits derive from markets outside the U.S. (Butryn, 2012). This is a business, dealing in sports entertainment, and the broadcasting of television programs, in which the fighters pretend to wrestle in an extremely violent manner (with a great deal of staged blood), and in which cruelty is seen as a game.

Children are not meant to be this program's target audience, however "more than one million children aged two to fourteen watch WWE programming each week" (Tamborini et al. 2005). For this reason, there has been, over the years, an increase in the production of messaging aimed at children by means of figurines and trading cards. The fighters in this type of promotional material are described as heroes whose actions are to be imitated. For instance, there is one WWE trading card in which a wrestler is depicted wearing a proud expression, and holding aloft in his raised fist the hair of a woman whose head has been chopped off; while we find, among the action figures, one of the wrestler Matt Hardy, who, during a fight, dropped a female opponent on her head. These are only two of the many examples we could present, and they are not the most stunning.

2.2 Sex in children's television advertising

Today sex is exploited as an expedient for selling everything, even merchandise to children (Committee on Communications, 2006). The sexual aura, with which every item advertised is enveloped, is meant to attract attention to the images within the ads, images that are totally explicit and engaging, and is at the same time meant to distract the viewer from the real characteristics (or lack of intrinsic characteristics) of the product: "The "wow" factor of sexual appeals attracts attention to promotional messages, encouraging readers to notice specific messages out of the media clutter or barrage of stimuli to which they are exposed" (Pinto & Crane, 2010).

The problem here is evident in all its complexity, if we consider that children are bombarded every day with these erotically-charged ads. For instance, it has been shown that children, from this standpoint, are very easily influenced, and exposure to sexual content may be responsible for precocious sexual activity (from 12 years of age) and aberrant ideas in terms of cultural norms and sex (Brown et al., 2006; Collins et al., 2004).

Television, including advertising, creates the illusion that sex is a key part of everyday life, and as such encourages it even among the very young. By means of television commercials young people are capable of "understanding" what is necessary to be attractive, how the male and female are supposed to behave, and which attributes

are more important for one or the other. More accurately, advertisers take advantage of the child's desire to appear older, by promoting models of adult behavior. Advertising inspires children to dress and act as if they were much older; and the principal target in terms of fashion and accessories are girls.

Representative of this type of advertising is that of Boobs&Bloomers, a trademark of a Dutch company that makes undergarments for girls (including push up bras), by exploiting the desire of even the youngest girl to appear more womanly. Their advertising promotions have aroused public outrage for displaying little girls in seductive poses and attitudes that often border on the indecent.

Another example is that of doll-toys. Over the years, one can see in the advertisements that promote these products, a propensity to focus on the physical aspect and appearance of the doll. This change in perspective has been imposed by the market trends which seem to continuously lower the age at which girls stop playing with dolls in favor of the computer (Case-Smith & Kuhaneck, 2008).

A telling example of these new sexy and fashionable dolls is the "Bratz" (MGA Entertainment) or the "Barbie My Scene" (Mattel) dolls: the preference attributed to the first is due to their greater aesthetic beauty (Karniol et al., 2012). "The analyses of the MGA's advertisements suggest that, in addition to fostering children's sense of group identity, they also promote values such as positive self-fulfillment and fashion consumption" (Almeida, 2009). The messaging revolving around these Bratz dolls is based on the idea of a doll that emanates power, a doll with a provocative and eye-catching look, prominent lips, and extremely long legs.

2.3 Children exposure to alcohol advertising on television

Even the exposure of children to commercials that advertise alcoholic beverages influences them, especially in cases where the ad illustrates drinking as totally normal behavior. In truth, this is so of almost every case, seeing that the commercial messaging related to the consumption of alcohol portrays it as a harmless activity without consequences (Grube, 1995; Engels et al., 2009). Moreover, the advertisements are not limited to focusing on those who by law have the right to drink alcohol, but zero in on children, as well, since they are the clients of tomorrow.

The latter are exposed to a huge number of alcohol-related ads, and are more likely to watch these commercials than adults, the ones who are the apparent targets of the manufacturers: it has been pointed out, in fact, that about one quarter of the promotional time purchased by the beverage makers is inserted into televised programming intended for the very young (Schor, 2005).

It is significant that from 2001 to 2009 the exposure of American youth to alcohol-related advertising grew by 71% (Jernigan et al., 2013). This becomes even more alarming if one considers that at the beginning of 2000 the youngest viewed 1000-2000 beer and wine television commercials per year (Strasburger, 2004). This data is also determined by the fact that small children love to watch programs, (like sports events), exclusively or most commonly meant for an adult audience, and this is why the manufacturing companies invest hundreds of millions of dollars so as to insert the ads in the time slots where they know they can “strike their target”.

Today, the advertising for alcoholic beverages captures the attention of children and youngsters by taking advantage of that vulnerability, which we first witnessed being exploited in the clothing sector: the desire to seem older (“I drink therefore I am grown up”). These commercials are populated by beautiful people (unquestionably beyond the norm). They are a little older and they promise a life filled with joy, fun, and sex, a life absent of boredom, one that revolves around alcohol (Linn, 2004).

The scene most often depicted represents a party in which the participants dance, make out, and drink, to the point of exhaustion. Alcohol is celebrated as the only source of happiness and as the secret ingredient for a world without rules. Obviously the risks and consequences associated with the use and abuse of alcohol are not shown. Furthermore, analysis of alcohol-related advertising suggests that it is being directed at younger children, too (Schor, 2005). For example, the Budweiser label, in its ads, has extensively drawn on the use of characters having animal characteristics (the dog, Spuds McKenzie, talking frogs, lizards), that children love so much.

It has been abundantly well-demonstrated (Austin & Knaus, 2000; Engels et al., 2009; Jernigan, 2006; Smith & Foxcroft, 2009) that the youngest of viewers watch, with interest, television ads related to alcohol, and they can easily identify the product

labels. They also have a positive attitude toward these commercials and toward the consumption of alcohol. They are more tempted to drink in the present (decisions about drinking are made in elementary school) than later on, when they will be older. In addition, the probability of starting to drink beverages unsuitable for minors escalates with the increase of time spent in front of the television.

What is more, promotional messages do not end with television ads since those associated with specific brands of alcohol are more and more often inserted into films, music videos of famous singers, television shows, and series. This is happening to such a great degree that, in the U.S, where product placement – which can affect children’s preferences (Owen et al., 2014) – has been widespread and employed for years, 76% of movies, suitable for the viewing of minors, include the use of alcohol (Strasburger et al., 2012). It is thus not surprising, although certainly troubling, that in a study conducted on 120 children, from 2 to 6 years of age, asked to play in a pretend mini-grocery store, more than 60% of them chose to buy beer or wine, if they had seen movies in which alcohol was consumed (Dalton et al., 2005).

3. CONCLUSION

“Youth spend an average of more than 7 hours/day using numerous media” (Strasburger et al., 2010), every one of which adopts often diverse methods for persuading minors to buy, and for creating brand loyalty.

These minors spend more and more time using more than one medium at a time: they develop a sort of multitasking talent that allows them, for instance, to watch television while simultaneously surfing the internet on the computer, or while using a tablet or smart phone. Television is still the most important source of commercial messaging aimed at children, and represents one of the principal means which marketers have at their disposal to reach them in their homes (Gunter et al., 2005). It is precisely for this reason that we have focused on television advertising in this article.

The child gets a feeling of gratification from the advertisement, and its message succeeds in penetrating his language and his thought process: the commercial becomes

the source from which information on reality is obtained and it provides models of behavior to emulate.

It is becoming imperative to plan new studies that will examine the impact of commercial messaging on children and their behavior, research that will concentrate on the combined effect that today's exposure to different media (television, internet etc.) has on them. If a given study focusses exclusively on the effects resulting from exposure to one medium alone – while children are in reality using multiple media, even simultaneously – the outcome will be limited to the extrapolation of fragments “selected” from a context that is actually much more complex. What is required is the adoption of a research model that delineates the complexity of the phenomenon, by also considering the environment and the cultural milieu in which the child lives. At the same time, it is often the case that studies take on a categorical logic in investigating the effects of specific promotional content on the attitudes and behaviors of children (in fact they explore only the violence “category”, or only sex, or alcohol). Whereas, it would be more useful to consider the interconnection of the numerous aspects (it is possible that in one single ad, both sex and alcohol, for example, are present, rather than only one or the other).

It is undoubtedly true that marketing aimed at children is hugely beneficial for the companies investing money to sell their products, but it is just as true that there are negative effects: the creation, within the child's imagination, of stereotypes, conveyed through advertising, that give a distorted vision of the real world and of interpersonal relationships, as well as the effects on aggression, sexual behavior, substance abuse, disordered eating, and academic difficulties. For this reason, it is becoming essential to protect minors from the viewing of commercials, which have content unsuitable for their age group, by means of more adequate regulation (as for example in the case of junk food advertising in the UK; Ofcom, 2006), a parental monitoring of media, and an educational initiative directed at children so that they may develop the skills to recognize the various aspects of advertising within the diverse media.

Furthermore, knowing the potential of advertising mechanisms, it would seem fitting to employ promotional messaging not only for commercial ends, but more substantially for the benefit of society and general interest, thus involving children and inviting them to avoid and modify those behaviors detrimental to themselves and others. This is a path already embarked on with success by certain video games: children exposed to prosocial video games have exhibited positive effects in terms of prosocial thoughts, which in turn promoted prosocial behavior (Gentile et al., 2009; Greitemeyer & Osswald, 2010). What would be the results if this became the beaten path of television and other media?

REFERENCES

- Ali, M., Blades, M., Oates, C., & Blumberg, F. (2009). Young children's ability to recognize advertisements in web page designs. *British Journal of Developmental Psychology*, 27(1), 71-83.
- Almeida, D. (2009). Where have all the children gone? A visual semiotic account of advertisements for fashion dolls. *Visual communication*, 8(4), 481-501.
- An, S. K., & Lee, D. (2010). An integrated model of parental mediation: the effect of family communication on children's perception of television reality and negative viewing effects. *Asian Journal of Communication*, 20(4), 389-403.
- Anderson, C. A., Gentile, D. A., & Buckley, K. E. (2007). *Violent video game effects on children and adolescents: Theory, research, and public policy*. Oxford, UK: Oxford University Press.
- Anderson, C. A., Shibuya, A., Ihori, N., Swing, E. L., Bushman, B. J., Sakamoto, A., Rothstein, H. R., & Saleem, M. (2010). Violent video game effects on aggression, empathy, and prosocial behavior in eastern and western countries: a meta-analytic review. *Psychological Bulletin*, 136(2), 151-173.
- Blades, M., Oates, C., & Li, S. (2013). Children's recognition of advertisements on television and on Web pages. *Appetite*, 62, 190-193.
- Boyland, E. J., Harrold, J. A., Kirkham, T. C., & Halford, J. C. (2012). Persuasive techniques used in television advertisements to market foods to UK children. *Appetite*, 58(2), 658-664.
- Brown, J. D., L'Engle, K. L., Pardun, C. J., Guo, G., Kenneavy, K., & Jackson, C. (2006). Sexy media matter: exposure to sexual content in music, movies, television, and magazines predicts black and white adolescents' sexual behavior. *Pediatrics*, 117(4), 1018-1027.
- Browne, K. D., & Hamilton-Giachritsis, C. (2005). The influence of violent media on children and adolescents: a public-health approach. *The Lancet*, 365(9460), 702-710.
- Buijzen, M., & Valkenburg, P. M. (2003). The effects of television advertising on materialism, parent-child conflict, and unhappiness: A review of research. *Journal of Applied Developmental Psychology*, 24(4), 437-456.
- Butryn, T. (2012). Global smackdown: Vince McMahon, World Wrestling Entertainment, and neoliberalism in Andrews, D. L. & Silk, M. L. (Eds). *Sport and neoliberalism: Politics, consumption, and culture* (280-293). Philadelphia, PA: Temple University Press.
- Carter, O. B., Patterson, L. J., Donovan, R. J., Ewing, M. T., & Roberts, C. M. (2011). Children's understanding of the selling versus persuasive intent of junk food advertising: Implications for regulation. *Social Science & Medicine*, 72(6), 962-968.

- Case-Smith, J., & Kuhaneck, H. M. (2008). Play preferences of typically developing children and children with developmental delays between ages 3 and 7 years. *OTJR: Occupation, Participation and Health*, 28(1), 19-29.
- Collins, R. L., Elliott, M. N., Berry, S. H., Kanouse, D. E., Kunkel, D., Hunter, S. B., & Miu, A. (2004). Watching sex on television predicts adolescent initiation of sexual behavior. *Pediatrics*, 114(3), e280-e289.
- Committee on Communications. (2006). Children, adolescents, and advertising. *Pediatrics*, 118(6), 2563-2569.
- Council on Communications and Media. (2010). Policy statement—Media education. *Pediatrics*, 126(5), 1012–1017.
- Ebster, C., Wagner, U., & Neumueller, D. (2009). Children's influences on in-store purchases. *Journal of Retailing and Consumer Services*, 16(2), 145-154.
- Engels, R. C., Hermans, R., Van Baaren, R. B., Hollenstein, T., & Bot, S. M. (2009). Alcohol portrayal on television affects actual drinking behaviour. *Alcohol & Alcoholism*, 44(3), 244-249.
- Gentile, D. A., Lynch, P. J., Linder, J. R., & Walsh, D. A. (2004). The effects of violent video game habits on adolescent hostility, aggressive behaviors, and school performance. *Journal of Adolescence*, 27(1), 5-22.
- Gentile, D. A., Reimer, R. A., Nathanson, A. I., Walsh, D. A., & Eisenmann, J. C. (2014). Protective effects of parental monitoring of children's media use: a prospective study. *JAMA Pediatrics*, 168(5), 479-484.
- Gentile, D.A., Anderson, C.A., Yukawa, S., Ichori, N., Saleem, M., Ming, L.K., Shibuya, A., Liau, A.K., Khoo, A., Bushman, B.J., Rowell Huesmann, L., & Sakamoto, A., (2009). The effects of prosocial video games on prosocial behaviors: International evidence from correlational, longitudinal, and experimental studies. *Personality and Social Psychology Bulletin*, 35(6), 752–763.
- Glaubke, C. R., Miller, P., Parker, M. A., & Espejo, E. (2001). Fair Play? Violence, gender and race in video games. Retrieved from: www.childrennow.org/index.php/learn/reports_and_research/article/219
- Goodman, E. (1999). Ads pollute most everything in sight. *Albuquerque Journal*, June, 27, C3.
- Greitemeyer, T., & Osswald, S. (2010). Effects of prosocial video games on prosocial behavior. *Journal of Personality and Social Psychology*, 98(2), 211.
- Grube, J.W. (2002). Television alcohol portrayals, alcohol advertising, and alcohol expectancies among children and adolescents in Martin, S.E. & Mail, P. (Eds), *Effects of the mass media*

- on the use and abuse of alcohol* (pp.105-121). Bethesda: National Institute on Alcohol Abuse and Alcoholism.
- Gunter, B., Oates, and C.J., Blades, M. (2005). *Advertising to children on TV. Content, impact, and regulation*. Mahwah NJ: Erlbaum.
- Hastings, G., Stead, M., McDermott, L., Forsyth, A., MacKintosh, A.M., Raynor, M., Godfrey, C., Caraher, M., and Angus, K. (2003). Review of research on the effects of food promotion to children. Report Prepared for the UK Food Standards Agency. Retrieved from: http://www.sfu.ca/cmns/faculty/marontate_j/801/08-spring/ClassFolders/Iwase_Masa/SelectedTopicMaterials/foodpromotiontochildren1.pdf
- Hebden, L., King, L., & Kelly, B. (2011). Art of persuasion: an analysis of techniques used to market foods to children. *Journal of Paediatrics and Child Health*, 47(11), 776-782.
- Jernigan, D. H., Ross, C. S., Ostroff, J., McKnight-Eily, L. R., & Brewer, R. D. (2013). Youth exposure to alcohol advertising on television-25 markets, United States, 2010. *Morbidity and Mortality Weekly Report*, 62(44), 877-880.
- Karniol, R., Stuemler-Cohen, T., & Lahav-Gur, Y. (2012). Who likes Bratz? The impact of girls' age and gender role orientation on preferences for Barbie versus Bratz. *Psychology & Marketing*, 29(11), 897-906.
- Kelly, B., Hattersley, L., King, L., & Flood, V. (2008). Persuasive food marketing to children: use of cartoons and competitions in Australian commercial television advertisements. *Health Promotion International*, 23(4), 337-344.
- Kunkel, D., Wilcox, B. L., Cantor, J., Palmer, E., Linn, S., & Dowrick, P. (2004). Report of the APA task force on advertising and children. Retrieved from: http://www.sfu.ca/cmns/faculty/kline_s/320/06-spring/resources/sup_readings/childrenads.pdf
- Linn, S. (2004). *Consuming Kids: the hostile takeover of childhood*. New York, NY: The New Press.
- Maher, J. K., Hu, M. Y., & Kolbe, R. H. (2006). Children's recall of television ad elements: an examination of audiovisual effects. *Journal of Advertising*, 35(1), 23-33.
- Mason, P. (2012). Marketing to children: implications for obesity. *Nutrition Bulletin*, 37(1), 86-91.
- Nicholls, A. J., & Cullen, P. (2004). The child–parent purchase relationship: “pester powe”, human rights and retail ethics. *Journal of Retailing and Consumer Services*, 11(2), 75-86.
- Ofcom. (2006). New restrictions on the television advertising of food and drink products to children. Retrieved from: media.ofcom.org.uk/2006/11/17/new-restrictions-on-the-television-advertising-of-food-and-drink-products-to-children

- Owen, L., Lewis, C. & Auty, S. (2014). Under the radar: How embedded commercial messages in TV and the new media influence children without their conscious awareness in M. Blades, C. Oates, F. Blumberg & B. Gunter (Eds.), *Advertising to children: New issues and new media*. Basingstoke, UK; Palgrave Macmillan.
- Pinto, M.B. & Crane, J.D. (2010). Sex and advertising in *Encyclopedia of Contemporary American Social Issues*. Santa Barbara, CA: ABC-CLIO.
- Quart, A. (2003). *Branded: The Buying and Selling of Teenagers*. Cambridge, MA: Perseus.
- Rideout, V.J., Foehr, U.G., and Roberts, D.F. (2010). Generation M2: Media in the lives of 8-18-years-olds Kaiser Family Foundation. Retrieved from: kff.org/other/event/generation-m2-media-in-the-lives-of/
- Schor, J.B. & Ford, M. (2007). From tastes great to cool. Children's food marketing and the rise of the symbolic. *Journal of Law, Medicine & Ethics*, 35(1), 10–21.
- Schor, J.B., *Born to buy: the commercialized child and the new consumer*. New York, NY: Scribner.
- Smith, L. A., & Foxcroft, D. R. (2009). The effect of alcohol advertising, marketing and portrayal on drinking behaviour in young people: systematic review of prospective cohort studies. *BMC public health*, 9(1), 51.
- Span, P. (1999). Marketers hang on affluent teen-agers' every wish. *Albuquerque Journal*. June, 27, C3.
- Strasburger, V. C. (2004). Children, adolescents, and the media. *Current Problems in Pediatric and Adolescent Health Care*, 34(2), 54-113.
- Strasburger, V. C., Jordan, A. B., & Donnerstein, E. (2010). Health effects of media on children and adolescents. *Pediatrics*, 125(4), 756-767.
- Strasburger, V. C., Jordan, A. B., & Donnerstein, E. (2012). Children, Adolescents, and the Media: Health Effects. *Pediatric Clinics of North America*, 59(3), 533-587.
- Strasburger, V.C. (2012). *Children, adolescents, and the media, an issue of pediatric clinics*. Philadelphia, PA: Elsevier Health Sciences.
- Tamborini, R., Skalski, P., Lachlan, K., Westerman, D., Davis, J., & Smith, S. L. (2005). The raw nature of televised professional wrestling: Is the violence a cause for concern?. *Journal of Broadcasting & Electronic Media*, 49(2), 202-220.
- Valkenburg, P. M., & Cantor, J. (2001). The development of a child into a consumer. *Journal of Applied Developmental Psychology*, 22(1), 61-72.
- Weinreich, A., Strobach, T., & Schubert, T. (2015). Expertise in video game playing is associated with reduced valence-concordant emotional expressivity. *Psychophysiology*, 52(1), 59-66.

- CHAPTER 2 -

CHILDREN PERCEPTIONS OF EMOTIONAL AND RATIONAL APPEALS IN SOCIAL ADVERTISEMENTS

1. INTRODUCTION

Children are among the most attractive targets on the market today because they are current consumers with their own needs and wants, influence others by directing their parent's in-store purchases and are future consumers. If companies gain the trust of children during their childhoods, their level of trust will probably remain high when they become adults (Valkenburg, 2000).

This market is also interesting due to its rapid internal changes. As children grow, they acquire and improve their skills, knowledge, and vocabulary. Their level of sophistication as consumers changes constantly as does their tastes and preferences (e.g., there are many interests differences between a 5-year-old child and an 8-year-old child). Therefore, companies and advertisers need to adapt commercials to different age groups and make advertisements attractive to them.

All of this translates into a huge number of television commercials that companies create in order to influence children's consumer behavior. The American Psychological Association (APA) Task Force on Advertising and Children (Kunkel et al., 2004) estimated that more than \$12 billion per year is spent to reach the youth market in the United States of America. Television is one of the mediums in which minors are the most exposed to, but nowadays they can watch television across a number of new platforms, including via the Internet and on tablets and smartphones. The amount of commercials theoretically seen on television by a child is 40,000 per year in the United States and 18,000 per year in the United Kingdom (Mason, 2012). The vast majority of advertisements targeted at children are obviously commercial advertisements and a great proportion of these commercials are related to the food industry.

The World Health Organization (WHO) has stated that the increase of childhood obesity is a serious problem all over the world (WHO, 2016) and research indicates

that although there is a multiplicity of factors influencing youth eating behaviors (sedentariness, ready-to-eat meals, etc.), advertising is partly responsible. Food marketing directed toward minors promotes energy-dense and nutrient-poor diets and consequently plays a significant role in sending the message that this type of food is healthy and influences children's choices.

Further, the quantity of public service announcements (PSAs) broadcasted on television is not sufficient compared to the quantity of commercial advertisements (Gantz et al., 2008; Puggelli & Bertolotti, 2014). It has been shown that a properly designed social campaign could have an important impact on changing or preventing unhealthy habits and on encouraging the adoption of good practices (Atkin & Rice, 2013). Public communication campaigns are one of the instruments available in social marketing that could be used to successfully influence behaviors for the collective benefit.

Social marketing has been defined as a “process that applies marketing principles and techniques to create, communicate and deliver value in order to influence target audience behaviors that benefit society (public health, safety, the environment, and communities) as well as the target audience” (Kotler & Lee, 2008).

To date, few studies have examined the effectiveness of PSAs, especially those targeted at children. Conversely, extensive research has been conducted that focuses only on the negative effects of commercials related to foods and drinks high in fat and sugar. It is important to understand if a social advertisement is sufficiently effective and what type of appeal is the best to promote relevant causes and healthy ways of life. In this manner, it is possible to convey information and to communicate directly to children in order to try to influence their behaviors.

This paper presents the findings of a mixed methods research study conducted in Italy with children aged 8 to 11. The purpose of this study was to understand the impact that rational and emotional content messages had on children's attitude toward two advertisements that promoted eating fruits and vegetables.

2. THEORETICAL BACKGROUND

A PSA is a non-commercial advertisement sponsored by a non-profit organization or a governmental department. The aim of a PSA is to inform people about social issues by raising awareness for them or to change behaviors and attitudes about specific topics. Public service advertising relies on donated media.

In contrast, a commercial is paid by a private company and its aim is to contribute to create a demand for a product or a service, to inform about the characteristics of a product or a service or to persuade to buy a product or a service. Methods and techniques used in the two types of advertisement are similar, but as stated before, the objectives are different.

Extensive research (Goldberg et al., 1978; Lawlor, 2009; Hota et al. 2010, Hebden et al. 2011, Boyland et al. 2012; Strasburger et al. 2014) has been especially undertaken on the commercial advertisements to determine which are the best strategies and instruments suitable for conveying advertising messages that are able to attract children's attention and to activate a memorization process. These strategies can be adapted to the field of PSAs in order to design effective social campaigns. Several persuasive elements (relating to message content, the protagonists of the story and production techniques) that have been proved effective and utilized in commercials for children are fantastic situations, the idea that some behavior causes super powers, characters from cartoons, celebrity endorsers, rapid camera movements, particular framings, wordplays, jingles, music, humor, and emotional messages rather than factual messages. It should be noted that what minors appear to favor in advertisements are aspects that generate entertainment and pleasure (Lawlor, 2009).

Furthermore, commercial communication penetrates in children's language and in their way of thinking through some features (Valkenburg, 2004; Metastasio, 2007):

- Conciseness (i.e., messages composed by few words and conveyed in a short time);
- The simplicity of the situation (i.e., settings that are familiar and recognisable);
- The simplicity of the advertising text (i.e., words limited, repeated and associated with images that permitted their memorization);

- Models appeal: (i.e., advertisements show behaviors that children want to imitate for being a component of the peer group).

In addition to the analysis of techniques used in advertisements for youth, other studies have been conducted to identify how children understand advertisement. Young (1990) defined children's "understanding" as their capacity to consider a commercial as an artifact built with the aim of selling products and not only a source of information.

In particular, some studies have examined children's ability to recognize the differences between television programmes and commercials (Robertson et al. 1974; Stephens et al. 1982; Kunkel & Roberts 1991). Recently, a number of studies have focused on advertisements in web pages and on the so-called "advergaming" (i.e., video games on company websites that promote a product or service (Ali et al. 2000; Van Reijmersdal et al. 2012; Blade et al. 2013). Further, other studies have explored whether children are able to understand the persuasive intent of advertising (Chan, 2000; Oates et al. 2002; Oates et al. 2003; Carter et al. 2011, Rozendaal et al. 2011).

The debate about this topic remains open because of its ethical implication. Questions have arisen as to whether or not it is appropriate to advertise to children when their cognitive defenses are not sufficient and the age at which children begin to discern the purpose of commercials. The answers to these questions should affect the decisions made by every country when formulating adequate television advertising regulations. The APA (Kunkel et al., 2004) has argued that mature comprehension of advertising occurs at approximately of 7-8 years of age, but Bjurström (1994) has suggested that we cannot be certain that minors have developed significant cognitive defenses and have become more skeptical toward advertisements earlier than the age of 12.

Finally, several studies have considered the developmental process that characterize children's growth as a consumer, showing which characteristics (e.g., tastes, preferences, how they comprehend the relationship between a message and a product, what they understand and memorize about commercials and brands, etc.) appear at a particular age. On the one hand, John (1999) proposed a model based on Piaget's

theory of general children development that identified three different stages: 1) perceptual (ages 3–7), 2) analytical (ages 7–11), and 3) reflective (ages 11–16). On the other hand, Valkenburg and Cantor (2001) presented a model of four developmental phases: 1) infants and toddlers (ages 0-2) characterized by feelings, wants and preferences; 2) preschoolers (ages 2-5) characterized by nagging and negotiating; 3) early elementary school (ages 5-8) characterized by a desire for adventure and the first purchase; and 4) later elementary school (ages 8-12) characterized by conformity and fastidiousness.

It has become increasingly important to consider the children's attitude toward commercials in this field of study concerning minors and advertising (Derbaix & Pecheux, 2003; Hasmini Ghani & Zain, 2004; D'alessio et al. 2009; Gulla & Purohit, 2013). Derbaix & Pecheux (2003) redefined the attitude toward TV advertising as “a psychological tendency that is expressed by evaluating TV advertising with some degree of favor or disfavor”. The attitudes are evaluative responses that have cognitive, affective, and behavioral components.

Moore and Lutz (2000) observed that children's liking of a commercial influenced their perceptions of a brand, their purchase intentions and their purchase requests to parents. It is clear that children with a positive attitude toward an advertisement are attracted to it and consequently can be influenced more by its message content.

The attitude toward advertising reflects a range of cognitive and affective reactions toward commercials. Van Evra (2004) noted that children do not focus much upon product information (i.e., advertisements with a rational appeal), but they prefer creative elements and entertaining advertisements (i.e., advertisements with an emotional appeal). Although the affective process works hand-in-hand with the cognitive process, the rational appeal involves a cognitive reaction and the emotional appeal involves an affective reaction in most cases. Consequently, it is probable that children have affective reactions because they are more influenced by the emotional appeal. This is different from an adult for whom both emotional and rational involvement are important in attitude change. The effectiveness of an appeal (i.e., rational vs emotional) for an adult depends on multiple factors such as the age of the consumer, the

product advertised (i.e., product vs service), the consumer's interests etc. (Ruiz & Sicilia, 2004; Yoo & MacInnis, 2005; McKay-Nesbitt et al., 2011).

As underlined above, there are two types of message content (also called appeal): emotional and rational (Liu & Stout, 1987; Rossiter & Percy, 1997; Solomon 2004; Mortimer, 2008; Zhang et al. 2014).

Rational appeals are based on the idea that consumers draw information from commercials about the quality, performance and characteristics of products or alternatively, draws useful information from advertisements about their health and good practices so that they become aware of particular issues, as is the case of social advertising. Emotional appeals generate positive or negative feelings that the consumer will associate with the advertising message. In relation to some aspects, rational and emotional appeals can be associated with the central route and the peripheral route of the Elaboration Likelihood Model (ELM) of Petty and Cacioppo (1986).

Unfortunately, there seems to be little research that analyze these two components in commercial advertisements for children (Page & Brewster, 2007; McAlister & Bargh, 2016). In addition and as mentioned above, a general literature on PSAs or social marketing interventions targeted at minors is limited (Hota et al. 2010, Kubacki et al. 2015) but studies on the topic of rational and emotional appeals connected to social advertisements aimed at children are even more limited.

It is evident that more analyses have been undertaken on the commercial purposes and effects of advertising than on the social purposes and effects of social advertising. On the one side, this is due to the importance of economic investments made by companies to study and create effective commercial communication and on the other side, this is due to the quantity of studies conducted by who is interested to understand commercial's strategies to protect children from persuasive advertisements. Further, PSAs are broadcasted less than common commercials.

Lawlor and Prothero (2008) highlighted how the literature has forgotten the non-commercial dimension of advertising and only explored the informative role in terms of quality, performance and characteristics of products. But, in the case of PSAs, it

has been provided information about personal health and social themes and children can use this information for their own benefit and interest.

Qualitative approaches (e.g., focus groups, interviews, drawings) have been used in the vast majority of research on children and advertising (Oates et al. 2003; Lawlor, 2009; Carter et al. 2011). Only two recent studies have used a quantitative approach such as questionnaires to assess children's attitude toward television advertising (Derbaix & Pecheux, 2003; D'alessio et al. 2009).

To address these issues, this study adopted a mixed method approach by collecting and combining both quantitative and qualitative data to obtain more detailed and comprehensive results.

3. METHOD

Creswell and Plano Clark (2011) identified four types of mixed method designs: convergent parallel design (or triangulation), explanatory sequential design, exploratory sequential design and embedded design. The mixed method model selected for the purpose of this study was a convergent parallel design that comprised a questionnaire for the quantitative approach and a semi-structured focus group for the qualitative approach (Figure 1).

The strength of this design compared to the other mixed method designs is that both quantitative data and qualitative data are collected and analyzed independently, using the different techniques associated with each data type (Creswell & Plano Clark, 2011). The purpose of the convergent parallel design in this study is to compare the quantitative questionnaire results with the qualitative focus group results to best understand a single phenomenon (i.e., the impact of rational and emotional appeals on children's attitude toward PSAs).

During data collection, there was a separate section for quantitative and qualitative phases; however, the importance given to these two approaches was equal. The outcomes from each approach were compared in order to assess the degree to which they converged. The semi-structured focus group validated the quantitative data and in addition enriched the quantitative data by providing a more complete understanding of the results.

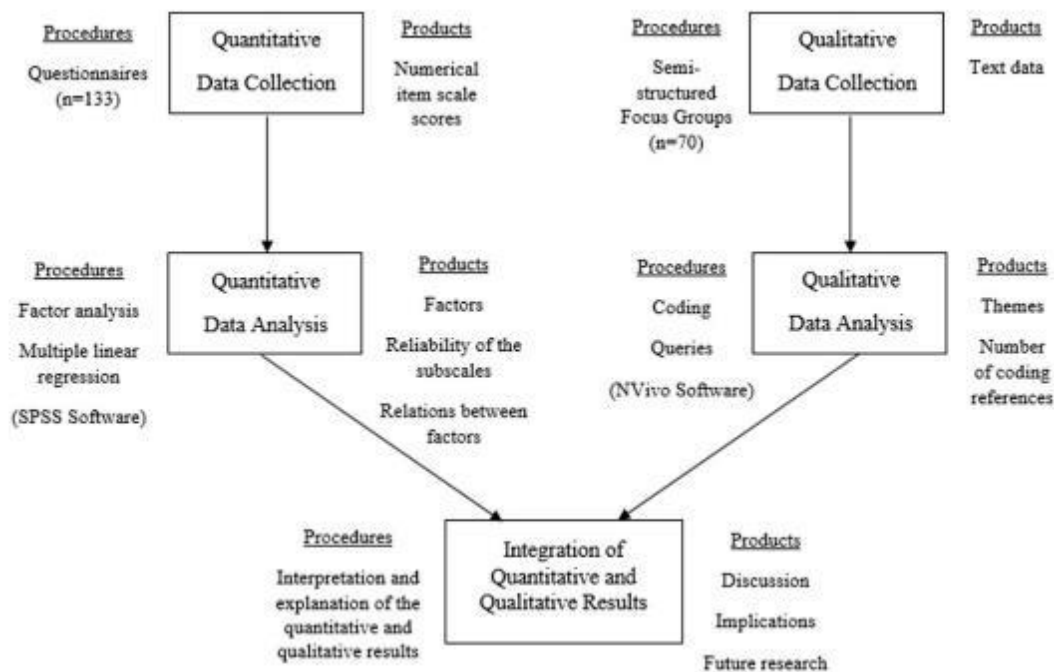


Figure 1 - Diagram for the Convergent Parallel Design

3.1 Quantitative data collection (questionnaire)

This study has a cross-sectional design and was conducted with children between 8 years old and 11. The questionnaire was adapted from Derbaix and Pecheux (2003), D'Alessio, Laghi and Baiocco (2009) and Lioutas and Tzimitra-Kalogianni (2014) to social advertisements and translated into Italian.

A four-point Likert scale (not at all = 1, a little = 2, a lot = 3, very much = 4) was used to avoid the tendency of children to mark the neutral mid-point.

First of all, items were tested with 11 children to ensure that questions were understandable and to check if there were any ambiguity in the sentences. After that, consent was obtained from the parents of 133 children (F = 66; M = 67) and the questionnaire was administered to these children during school hours at a primary school of Verona, Italy.

Before verifying the relationships between components, a factor analysis with varimax rotation was run in SPSS software. Subsequently, the reliability of the subscales was measured using Cronbach's alpha test to assess the internal consistency of the

series of questions. From the analysis, three factors that measured the emotional component ($\alpha = 0.80$), the rational component ($\alpha = 0.57$) and the attitude ($\alpha = 0.64$) emerged. Despite being relatively low, the last two values of α , can be considered sufficient for an initial research phase (Nunally, 1967; Loewenthal, 2004; George and Mallery, 2016).

The final scale was composed by 10 items and included 4 items for the emotional component, 3 for the rational component and 3 for the attitude toward advertisements (Table 1 and Table 2).

Table 1 - Factor analysis with varimax rotation (emotional and rational component)

Items	Emotional	Rational
Do you like this advertisement?	0.801	
Is this advertisement boring? (reverse coded)	0.736	
Is this advertisement beautiful?	0.859	
Is this advertisement funny?	0.762	
Is this advertisement meaningless? (reverse coded)		0.705
Did this advertisement teach you useful things?		0.756
Does this advertisement want to teach you to eat more fruits and vegetables?		0.724

Table 2 - Factor analysis (attitude toward advertising)

Items	Attitude
Do you feel like watching other similar advertisements?	0.793
Would you like to watch this advertisement again?	0.835
If you see this advertisement on television, do you change channel? (reverse coded)	0.666

A multiple linear regression was used to verify two hypotheses: 1) whether a significant relationship between the emotional component and the attitude toward advertisements exists and 2) whether a significant relationship between the rational component and the attitude toward advertisements exists. Given the exploratory nature of this study, the existence of the two relationships was hypothesized without suggesting the positivity or the negativity of the directions.

Two PSAs were shown to the children before the questionnaire was administered:

- N.66 children watched “Frutta nelle scuole” advertisement created by the Italian Ministry of Agricultural, Food and Forestry Policies. The Italian PSA is a fantasy stop-motion animation that lasts 21 seconds. The main characters are personified fruits and vegetables. This advertisement encourages children to eat healthy food by comparing and presenting fruits and vegetables as an interesting subject that they may wish to learn more about at school. It states that fruits and vegetables will also be appreciated by and can be shared with parents (Figure 2).
- N.67 children watched “The Greatest Action Movie Ever” advertisement created by the American Advertising Council. The American PSA lasts 1 minute and the main characters are a group of real children whose super powers are created through the use of special effects and a cartoon monster. This advertisement was dubbed into Italian and shows children that they can acquire many super powers by eating fruits and vegetables, so much so that they would even be able to defeat a monster (Figure 3).



Figure 2 - Frutta nelle scuole



Figure 3 - The Greatest Action Movie Ever

3.2 Qualitative data collection (semi-structured focus group)

A subsample of 70 boys and girls between 8 and 11 that answered the questionnaire also participated in a semi-structured focus group. Each group was composed by five or six children that were randomly chosen. Focus groups were conducted during school hours in separate classrooms at the same school of the quantitative phase.

The discussions were also audio-recorded with the permission of the parents and the children and lasted a maximum of 30 minutes. An interview guideline was used in order to examine in depth the topics that were also explored in the questionnaire.

The children watched the two above-mentioned PSAs and were invited to give their opinion about them. In particular, they were asked to try to explain both of the advertisements, to indicate which they liked and why, which they understood better and why, and finally, which they wanted to watch again and why. Each question was asked in such a way that children could respond in complete freedom. In fact, their responses ranged from a preference for one advertising, both, or to neither. Questions were modified slightly on certain occasions according to the children's reaction and answers.

All discussions of the focus groups were transcribed and then coded using NVivo 11 plus software (Computer Assisted Qualitative Data Analysis Software - CAQDAS).

4. RESULTS

4.1 Quantitative results

The results from a multiple linear regression demonstrated that both components, rational and emotional, had a significant impact on the overall attitude of children toward advertisements ($p < .01$).

According to the value of R square, the model explained about 38% of the variance, thus, the adaptation has deemed satisfactory. The two variables considered (i.e., the emotional component and the rational component) had a direct relationship with the attitude and particularly the emotional component was the most influential on the change of children's attitude toward advertising.

In addition, we have also controlled if demographic variables (i.e., gender and age) and if the kind of advertisement watched by children had an effect on attitude. It should be noted that these variables had no effects. The Variance inflation factor (VIF) did not have high values and we could consider that there was no multicollinearity between variables (Table 3).

Table 3 - Regression analysis

Variables	B	S.E.	β	<i>t</i>-statistic	<i>p</i>-value	VIF
Constant	1.355	0.859		1.578	0.117	
Emotional component	0.572	0.071	0.572	8.098	0.000**	1.014
Rational component	0.186	0.074	0.186	2.519	0.013*	1.106
Dummy advertisements	0.122	0.151	0.061	0.810	0.419	1.169
Dummy gender	-0.105	0.141	-0.053	-0.748	0.456	1.013
Age	-0.143	0.091	-0.114	-1.579	0.117	1.056

** $p < 0.01$; * $p < 0.05$

Dummy advertisements: 1 The Greatest Action Movie Ever; 0 Frutta nelle scuole

Dummy gender: 1 male; 0 female

4.2 Qualitative results

4.2.1 *Emotional component – Entertainment*

The answers related to which advertisements children liked and why were coded as the parent node “emotional component - entertainment”.

Children’s preferences for one or both PSAs were also coded so that a brief count of preferences could be obtained. As figure 4 shows, the majority of coding references were for “The Greatest Action Movie Ever” advertisement whereas the number of references for “Frutta nelle scuole” advertisement and for children that had no preferences and liked both were more or less the same.

A comparison of explanations about children’s choices clearly showed that the children mostly considered “The Greatest Action Movie Ever” advertisement as a source of entertainment because it was a funny advertisement based on adventure and action. Conversely, although “Frutta nelle scuole” advertisement was a fantasy stop-

motion animation, children were concentrated on the advertisements' capacity to convey the message that they should eat more fruits and vegetables.

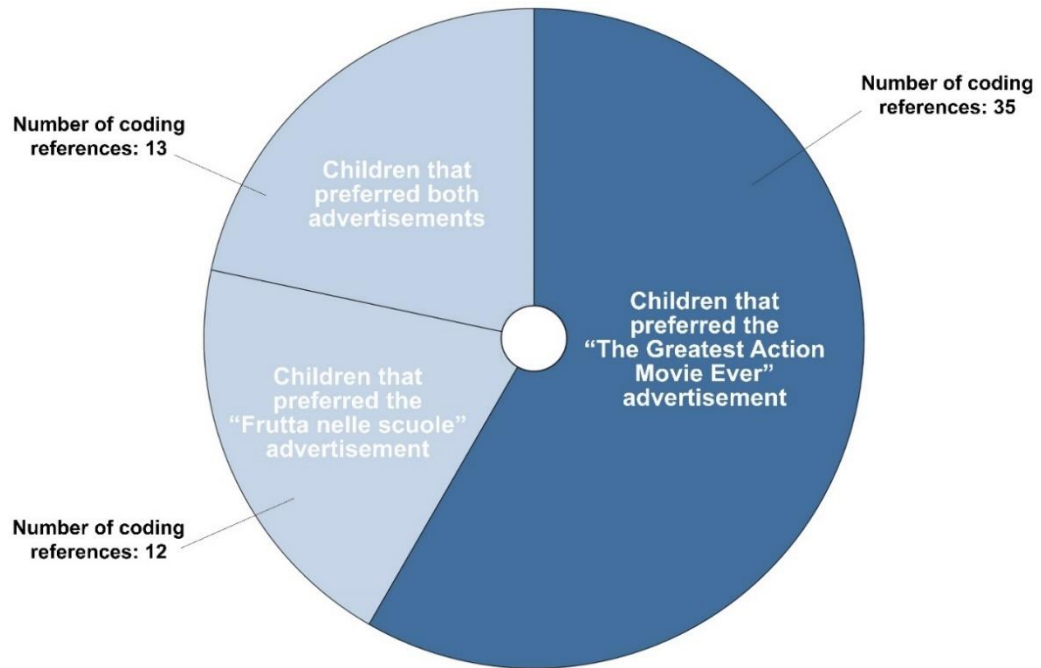


Figure 4 - Coding references for the emotional component - entertainment

From the discussions, similar children's answers emerged and were categorized into thematic areas. Depending on what advertisements they preferred, the question asked to children was why they like most "The Greatest Action Movie Ever" or "Frutta nelle scuole".

When they spoke about "The Greatest Action Movie Ever", they considered it as a funny advertisement that made them laugh:

- *Because it makes me laugh a lot!*
- *Because it's more funny and it is the nicest to watch.*

They were attracted by its adventurous scenes and they indicated action and movements as one of their favorite characteristics:

- *Because there was so much action and movement.*
- *Because there is more action, adventure and we can say that it is more similar to a videogame.*

- *Because there was more movement and it seemed to be a true story because in the end they ate fruits. So it was, in my opinion, an exactly right idea.*

The children and a monster used as characters were other peculiarities that were judged positively. In particular, they noticed children's karate moves and the monster hands that were similar to pliers, stating:

- *Because there are children who do the (karate) moves and then there is that child who runs away and there is the monster.*
- *There is the monster, it had pliers!*

They also liked that the advertisement was shot as a film trailer in which children that eat fruits and vegetables became superheroes:

- *I liked it because it was adventurous, there were games for us guys, because they showed that if you eat broccoli you hear how (the monster) is close, if you eat carrots you see how far it is. I liked it because it made clear that with fruits it was like to be a superhero.*
- *It was a bit beautiful because they showed that the next film that maybe someone will make, it will have children as characters and not adults.*
- *Because it looked like a trailer for a movie that is coming out, and I really liked it because it looked like a movie.*

Finally, they chose "The Greatest Action Movie Ever" because it lasted longer than the other advertisement and because it transmitted the idea that fruits and vegetables could give them energy and strength:

- *Because it is longer and because it permits us to understand better what fruits and vegetables do to our body.*
- *When you eat fruit you have more energy to run, to have fun and it gives you more strength and it is delicious.*

On the contrary, the majority of children that chose "Frutta nelle scuole" stated that they liked this advertisement because it is the most understandable:

- *Because it made me realize I have to eat more fruits and vegetables.*

- *Because it makes you realize that when you are studying, you have to eat more fruits and vegetables to learn things.*

In addition, some of the children based their choice on the fact that the advertisement spoke about the school and scholastic subjects:

- *Because there were the subjects that I like more: Italian, Geography... in short, the subjects that I like.*
- *Since I really like the school, I prefer the second advertisement.*

4.2.2 Rational component - Usefulness

All the answers related to which advertisements children understood better and why were coded as the parent node “rational component - usefulness”.

Children’s preferences for one or both PSAs were also coded so that a brief count of preferences could be obtained. As figure 5 shows, the majority of coding references were for “Frutta nelle scuole” while the number of references for “The Greatest Action Movie Ever” and for children that had no preferences and understood both were more or less the same. Only two children said that they did not understand either advertisements.

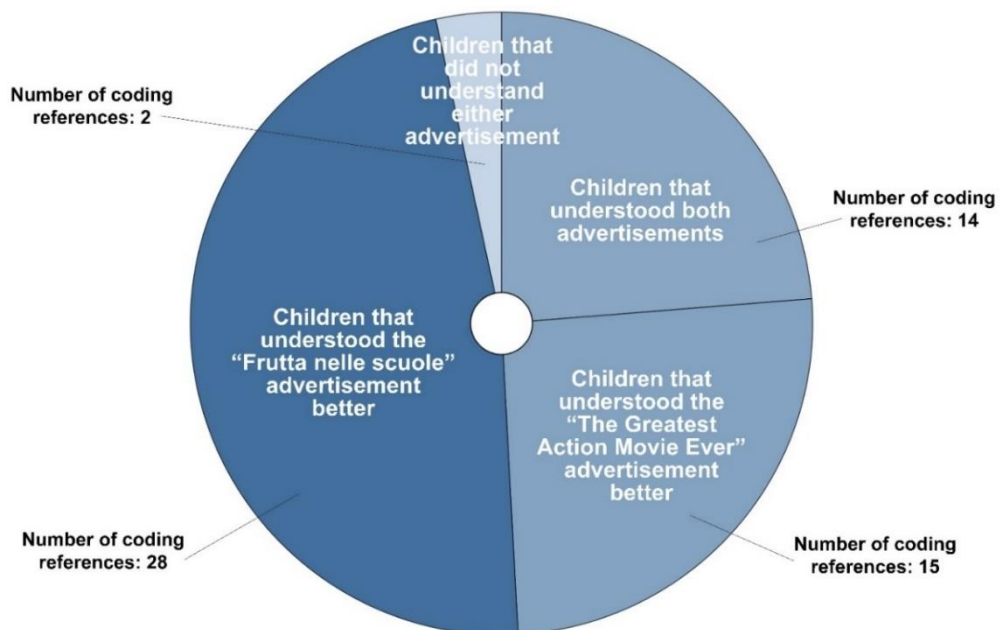


Figure 5 - Coding references for the rational component - usefulness

Children's explanations about their choice recalled the thematic areas found for the emotional content. On the one side, "Frutta nelle scuole" focused the attention on fruits and vegetables as protagonists of the ad and conveyed better the idea that a good alimentation was important. On the other side, "The Greatest Action Movie Ever" tried to explain the relevance of a healthy nutrition by entertaining children through an adventure story with superheroes and it was based on the imaginary superpowers that fruits and vegetables could transmit to children.

Many children said that the "Frutta nelle scuole" advertisement was clearer than "The Greatest Action Movie Ever" advertisement and appreciated the fact that the former spoke directly about fruits and vegetables without the use of monsters, superheroes and so on. In addition, they evaluated positively for the comprehension of the message the characteristic of the advertisement to be short (this differed to what children said in relation to the emotional component):

- *Precisely because it speaks more about fruits, while the other one ad speaks more about action, monsters, explosions-boom!*
- *Because it speaks more about fruits and fruits are good for growth, so it says how to eat well. Going to McDonald's or Burger King harms your body instead.*
- *Because it explains better to eat vegetables and fruits and so vegetables and fruits are very important because they are healthy, that is, you eat right.*
- *The first ad seems to me shorter and so more meaningful because if you watch it, after a while you will think about it.*

A minority of the children that choose "The Greatest Action Movie Ever" explained that they understood this advertisement's message because it showed them that fruits and vegetables could give them energy and power in order to feel better:

- *Because you understand that people need to eat more fruits and vegetables to have more energy, more strength, and so you feel better.*
- *Because when the girl ate the carrot ... - it is true that when you eat the carrot, it is good for eyes because you see better - it seems to me that her eyes lit up of a yellow color, therefore I understood better the second ad.*

- *The second advertisement let me understand better because you notice more that by eating fruits you had power and you could also defeat the monster.*

4.2.3 Attitude

All the answers related to which advertisements children wanted to watch again and why were coded as the parent node “attitude toward advertising”.

Adopting the same method outlined above, children’s choice for one or both PSAs were coded so that a brief count of references could be obtained. As figure 6 shows, the majority of coding references were for “The Greatest Action Movie Ever” while the number of references for “Frutta nelle scuole” and for children that had no preferences and wanted to watch both advertisements again were the same. Only one child said that he did not want to watch both advertisements again.

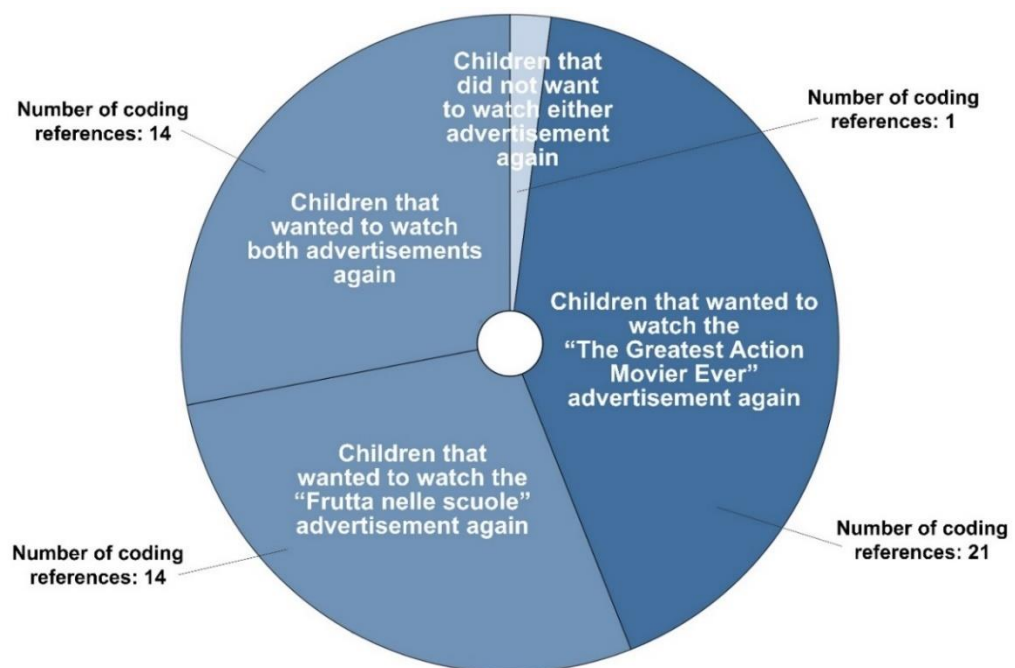


Figure 6 - Coding references for the attitude toward advertisements

Also in relation to attitude, it was found that children gave similar explanation for their choice. Most children wanted to watch “The Greatest Action Movie Ever” again because they liked fantasy stories and because it elicited positive emotions. On the contrary, other children choose “Frutta nelle scuole” because they thought that its message was more understandable and direct.

Notably and as indicated previously, the characteristics of “The Greatest Action Movie Ever” that they tended to favor were the adventure, the presence of the monster and superheroes and its similarity to a film trailer:

- *Eh, we are children and we like fantasy.*
- *Because there is more adventure and I like superheroes.*
- *I would watch again the one where everything explodes and they eat fruits, take the energy and destroy....*
- *Because let's say that children really like movies, the scenes from movies and seeing this stuff you might force them to eat more fruits and vegetables.*
- *Because it makes children laugh... because many children like movies, they like action, so personally it would be nice to see the second ad again.*
- *Because there is action and movement and then there is the essence of the speech that is you should eat fruit and it combines this with movement, so it is really a fantastic idea.*
- *Because children seeing these action things think that if they eat fruits and vegetables, they can defeat the dragons and monsters that stay in nightmares. Maybe the second ad is...forces you more.*

Children that chose “Frutta nelle scuole” said that the advertisement explained the same concept of “The Greatest Action Movie Ever” but did so more clearly and in a shorter time. In some respects, they considered this advertisement serious and appropriate for all family members, stating:

- *The second ad - The Greatest Action Movie Ever - is more beautiful, but the first ad - Frutta nelle scuole - is more meaningful to see on television.*
- *I would like to see the first ad - Frutta nelle scuole - because otherwise parents say: why do you watch that stuff?*

- *For now the first ad - Frutta nelle scuole - because I have a little brother and now that he is sick I want to watch television with him for longer time and the advertisement is nice, likeable while the other one - The Greatest Action Movie Ever - is not likeable.*
- *I would call my sister and my mom and we'll all laugh when we see it.*
- *Another thing against the first ad - The Greatest Action Movie Ever - is that it lasted long and it explained the same concept, while the second ad - Frutta nelle scuole - lasts a short time. Let's say, when I'm watching television it bothers me when they interrupt me.*
- *It also explained better, it is shorter but more specific.*
- *Then they bring up the matter of Italian, Mathematics and Geography and they say that this is also important.*

It was interesting to note that some of the children referred to themselves as older children and discussed about which advertisement was appropriate for them or for little children. Their arguments were varied and some of them indicated that “Frutta nelle scuole” was appropriate for older children because it was more realistic and they considered the use of monster and superpowers in the other advertisement to be childish. Some of the other children, vice versa, thought that “The Greatest Action Movie Ever” was appropriate for them because the use of a monster might scare younger children. Examples of the children’s comments included:

- *So, I didn't like so much the first ad - The Greatest Action Movie Ever - because seemed to me a little childish, there was the monster and then I didn't understand the meaning.*
- *Practically, the second ad - The Greatest Action Movie Ever - explains to children, the younger ones, to eat more fruits in order to make them believe that they became superheroes, but eating fruits, you became healthy and fruits protect you from other diseases.*
- *We can say that the first ad - Frutta nelle scuole - is a little for younger children, but after all it is also nice and it makes you laugh a little. The second ad - The Greatest Action Movie Ever - is more suitable to children of our age instead because younger children get scarred. In short, both are beautiful.*

5. INTEGRATION OF RESULTS

As indicated in relation to the quantitative results, the emotional component and the rational component had a direct relationship with the attitude and particularly the emotional component was the most influential on the change of children's attitude toward advertising.

Referring to qualitative results, we could say that the emotional component was largely associated with the advertisement called “The Greatest Action Movie Ever” because the majority of the children underlined that this PSA was a source of entertainment for them. On the contrary, the children described “Frutta nelle scuole” as the most understandable advertisement and in this way we could associated it with the rational component. Obviously, the two components were present in both PSAs, but as underlined by children, the emotional component was preeminent in “The Greatest Action Movie Ever” and the rational component in “Frutta nelle scuole”.

The results from the qualitative phase converged with those of the quantitative phase, considering that more children chose to watch “The Greatest Action Movie Ever” again (we named “attitude toward advertising” the children’s choice to see one or the other ad), that is, the advertisement in which the emotional component was higher.

6. DISCUSSION

6.1 Theoretical implications

The aim of this paper was to better understand the role of the emotional and the rational components in relation to children’s attitude toward PSAs.

The integration of the qualitative and quantitative data increased our knowledge around how children perceive a social advertisement and its message and in particular, what type of appeal could have an influence on them.

The results indicated that both components played a significant role in children’s preference for an advertisement, but the emotional component appeared to be the preeminent.

As stated above, to date, very few studies have investigated the potentialities of the emotional and rational appeal in the context of PSAs targeted at minors. However, our findings were in accordance with research examining commercial advertising. In fact, the most prevalent appeal in the commercials for the children was the emotional appeal that permitted an association between the advertised product and the theme of fun (Buijzen and Valkenburg, 2002; Folta *et al.* 2006; Page and Brewster, 2007; Hebden *et al.* 2011; Boyland *et al.* 2012). Lawlor (2009) noted in her study that many of the children considered advertisements a source of enjoyment and appeared to exhibit positive attitudes toward advertisements on the basis of its perceived entertainment value.

In addition, Valkenburg (2004) explained that minors around 8 years were attracted by adventure and action and began to enjoy characters who seemed psychologically and physically similar to them. These kinds of characters were looked at as individuals to emulate.

Thus, the emotional content present in advertisements can be identified with several aspects, for example characters, actions, adventures, music, humor, etc.

In this study, we found that children indicated action and adventure as one of their favorite characteristics. They appreciated the idea that “The Greatest Action Movie Ever” had been shot to be similar to a film trailer and that any child could become like the protagonists by eating fruits and vegetables. However, the importance of the rational component of advertisements should not be disregarded, as the children also wanted an understandable and direct message that was not confusing.

6.2 Practical implications

The findings of the research are of interest because the study analyzed the same techniques and elements generally used in the sector of commercial advertising, but these techniques and elements were analyzed in the field of PSAs.

It is clear that governmental institutions and advertisers interested in social themes should use the same elements used in normal commercials addressed to children in order to design effective social campaigns. If they know what children prefer and

what type of appeal is the best to convey important messages, they should be able to communicate directly and efficaciously to minors.

The promotion of relevant causes and healthy ways of life through advertising needs to elicit emotions in children, so that the creation of emotional content messages could have a positive effect on children's attitude toward advertising.

In spite of the importance of the emotional component, it is also necessary to create short and clear messages about the topic that governmental institutions wish to address, avoiding long explanations and details that sometimes children consider boring.

The age of children to whom a PSA is being directed should also be considered, as there are significant developmental differences between children in different age brackets. The children of this study talked often about what is appropriate for them or about what is childish. They considered themselves to be older children and they wanted to emphasize their differences and tastes compared to the youngest.

Therefore, it may be useful that governmental institutions and advertisers plan advertising campaigns with a targeted approach that respect children's tastes. In addition, they should cover a wide variety of themes with the use of a larger number of social advertisements.

6.3 Limitations and future research

To conclude, this study had some limitations to consider. First, it used a sample of children aged eight to eleven years from Italy. Further research should explore the same topic in other countries with different age brackets.

Second, it illustrated the effect of the emotional and rational components on children's attitude toward advertising, but the results cannot be generalized to the influence on the children's behavior. It is quite possible that a positive attitude toward advertisements could lead to a behavior's change, but it also may be useful to examine this connection through additional appropriate experiments.

Finally, this study only analyzed PSAs that promoted eating fruits and vegetables. Future studies should consider other social subjects to understand if children continue to prefer mainly an emotional appeal across different subjects.

REFERENCES

- Ali, M., Blades, M., Oates, C. & Blumberg, F. (2009). Young children's ability to recognize advertisements in web page designs. *The British Journal of Developmental Psychology*, 27 (1), 71-83.
- Atkin, C. K. & Rice, R. E. (2013). Advances in public communication campaigns. In E. Scharer (Eds), *The International Encyclopedia of Media Studies* (526-551). London, UK: Wiley-Blackwell.
- Bjurström, E. (1994). *Children and television advertising. A critical study of international research concerning the effects of TV commercials on children*. Retrieved from: https://www.google.it/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=0ahUKEwiZvp_k0OfRAhWJXRQKHR1JDu0QFggf-MAA&url=http%3A%2F%2Fcriancaeconsumo.org.br%2Fwp-content%2Fuploads%2F2014%2F02%2F59-Children-and-Television-Advertising_0.pdf&usq=AFQjCNEyeN5mDo51mvQsfX7b7xBwSZy_AQ&sig2=p5yaa5DJRr7G-bn4kjJYgQ
- Blade, M., Oates, C. & Li, S. (2013). Children's recognition of advertisements on television and on web pages. *Appetite*, 62, 190-193.
- Boyland, E.J., Harrold, J.A., Kirkham, T.C., & Halford, J.C.G. (2012). Persuasive techniques used in television advertisements to market foods to UK children. *Appetite*, 58(2), 658–664.
- Buijzen, M. & Valkenburg, P. M. (2002). Appeals in television advertising: a content analysis of commercials aimed at children and teenagers. *Communications*, 27, 349-364.
- Carter, O. B. J., Patterson, L. J., Donovan, R. J., Ewing, M.T., & Roberts, C.M. (2011). Children's understanding of the selling versus persuasive intent of junk food advertising: implications for regulation. *Social Science & Medicine*, 72(6), 962-968.
- Chan, K. (2000). Honk Kong children's understanding of television advertising. *Journal of Marketing Communications*, 6, 37-52.
- Creswell, J. W. & Plano Clark, V. (2011). *Designing and Conducting Mixed Methods Research*. Thousand Oaks, CA: Sage Publications.
- D'Alessio, M., Laghi, F. & Baiocco, R. (2009). Attitudes toward TV advertising: a measure for children. *Journal of Applied Developmental Psychology*, 30, 409-418.
- Derbaix, C. & Pecheux, C. (2003). A new scale to assess children's attitude toward TV advertising. *Journal of Advertising Research*, 43, 390-399.

- Folta, S. C., Goldberg, J. P., Economos, C., Bell, R., & Meltzer, R. (2006). Food advertising targeted at school-aged children: a content analysis. *Journal of Nutrition Education and Behavior*, 38(4), 244-248.
- Gantz, W., Schwartz, N., Angelini, J.R. & Rideout, V. (2008). Shouting to be heard: public service advertising in a changing television world. Retrieved from: <http://kff.org/other/shouting-to-be-heard-2-public-service/>
- George, D. & Mallery, P. (2016). *IBM SPSS Statistics 23 step by step: a simple guide and reference*. London, UK: Routledge.
- Goldberg, M.E., Gorn, G. J. & Gibson W. (1978). TV messages for snacks and breakfast foods: do they influence children's preferences?. *Journal of Consumer Research*, 5(2), 73-81.
- Gulla, A. & Purohit, H. (2013). Children's attitude towards television advertisements and influence on the buying behavior of parents. *International Journal of Marketing, Financial Services & Management Research*, 2(6), 103-116.
- Hasmini A. Ghani, N., & Zain, O. M. (2004). Malaysian children's attitudes towards television advertising. *Young Consumers*, 5(3), 41-51.
- Hebden, L., King, L., & Kelly, B. (2011). Art of persuasion: an analysis of techniques used to market foods to children. *Journal of Paediatrics and Child Health*, 47(11), 776-782.
- Hota, M., Càceres, R. C. & Cousin, A. (2010). Can Public-Service Advertising change children's nutrition habits?. *Journal of Advertising Research*, 50, 460-477.
- John, D. R. (1999). Consumer socialization of children: A retrospective look at twenty-five years of research. *Journal of Consumer Research*, 26(3), 183-213.
- Kotler, P. & Lee, N. R. (2008), *Social marketing: influencing behaviors for good*. Thousand Oaks, CA: Sage Publications.
- Kubacki, K., Rundle-Thiele, S., Lahtinen V. & Parkinson, J. (2015). A systematic review assessing the extent of social marketing principle use in interventions targeting children (2000-2014). *Young Consumers*, 16(2), 141 - 158.
- Kunkel, D. & Roberts, D. (1991). Young minds and marketplace values: issues in children's television advertising. *Journal of Social Issues*, 47(1), 57-72.
- Kunkel, D., Wilcox, B.L., Cantor, J., Palmer, E., Linn, S. & Dowrick, P. (2004). Report of the American Psychological Association task force on advertising and children. Retrieved from: <https://www.apa.org/pi/families/resources/advertising-children.pdf>
- Lawlor, M. & Prothero, A. (2008). Exploring children's understanding of television advertising - beyond the advertiser's perspective. *European Journal of Marketing*, 42(11/12), 1203-1223.

- Lawlor, M. (2009). Advertising connoisseurs: children's active engagement with and enjoyment of television advertising. *Irish Marketing Review*, 20(1), 23-24.
- Lioutas, E. D. & Tzimitra-Kalogianni, I. (2014). "I saw Santa drinking soda!" Advertising and children's food preferences. *Child: Care, Health and Development*, 41(3), 424-433.
- Liu, S. S. & Stout, P. A. (1987). Effects of message modality and appeal on advertising acceptance. *Psychology & Marketing*, 4(3), 167-187.
- Loewenthal, K.M. (2004). *An introduction to psychological tests and scales*. Hove, UK: Psychology Press.
- Mason, P. (2012). Marketing to children: Implications for obesity. *Journal compilation. British Nutrition Foundation Nutrition Bulletin*, 37(1), 86-91.
- McAlister, A. R. & Bargh, D. (2016). Dissuasion: the Elaboration Likelihood Model and young children. *Young Consumers*, 17(3), 210 - 225.
- McKay-Nesbitt, J., Manchanda, R. V., Smith, M. C. & Huhmann, B. A. (2011). Effects of age, need for cognition, and affective intensity on advertising effectiveness. *Journal of Business Research*, 64, 12-17.
- Metastasio, R. (2007). *Bambini e pubblicità*. Roma, I: Carocci Editore,.
- Moore, E. S. & Lutz, R. J. (2000). Children, advertising, and a product experiences: a multi-method inquiry. *Journal of Consumer Research*, 27, 31-48.
- Mortimer, K. (2008). Identifying the components of effective service advertisements. *Journal of Services Marketing*, 22(2), 104-113.
- Nunally, J. C. (1967). *Psychometric theory*. New York, NY: McGraw Hill.
- Oates, C., Blades, M. & Gunter, B. (2002). Children and television advertising: when do they understand persuasive intent?. *Journal of Consumer Behaviour*, 1(3), 238-245.
- Oates, C., Blades, M., Gunter, B. & Don, J. (2003). Children's understanding of television advertising: a qualitative approach. *Journal of Marketing Communications*, 9, 59-71.
- Page, R.M. & Brewster, A. (2007). Emotional and rational product appeals in televised food advertisements for children: analysis of commercials shown on US broadcast networks. *Journal of Child Health Care*, 11(4), 323-340.
- Petty, R.E. & Cacioppo, J.T. (1986). The elaboration likelihood model of persuasion. *Advances in Experimental Social Psychology*, 19, 123-205.
- Puggelli, F.R. & Bertolotti M. (2014). Healthy and unhealthy food in Italian television ads for adults and children. *Young Consumers*, 15(1), 58-67.
- Robertson, T. S. & Rossiter, J. R. (1974). Children and commercial persuasion: an attribution theory analysis. *Journal of Consumer Research*, 1, 508-12.

- Rossiter, J. R. & Percy, L. (1997). *Advertising and promotion management*. New York, NY: McGraw-Hill.
- Rozendaal, E., Buijzen, M. & Valkenburg, P. (2011). Children's understanding of advertisers' persuasive tactics. *International Journal of Advertising*, 30(2), 329-348.
- Ruiz, S. & Sicilia, M. (2004). The impact of cognitive and/or affective processing styles on consumer response to advertising appeals. *Journal of Business Research*, 57, 657-664.
- Solomon, M. R. (2004). *Consumer behavior: buying, having and being*, Upper Saddle River, NJ.: Prentice-Hall.
- Stephens, N., Stutts, M. A. & Burdick, R. (1982). Preschoolers' ability to distinguish between television programming and commercials. *Journal of Advertising*, 11(2), 16-26.
- Strasburger, V. C., Wilson, B. J. & Jordan, A. B. (2014). *Children, adolescent and the media*. Thousand Oaks, CA: Sage Publications.
- Valkenburg, P. (2000). Media and youth consumerism. *Journal of Adolescent Health*, 27(2), 52-56.
- Valkenburg, P. M. (2004). *Children's responses to the screen*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Valkenburg, P. M., & Cantor, J. (2001). The development of a child into a consumer. *Applied Developmental Psychology*, 22(1), 61-72.
- Van Evra, J. (2004). *Television and child development*. London, UK: Routledge.
- Van Reijmersdal, E., Rozendaal, E. & Buijzen, M. (2012). Effects of prominence, involvement, and persuasion knowledge on children's cognitive and affective responses to advergames. *Journal of Interactive Marketing*, 26(1), 33-42.
- World Health Organization (WHO) (2016), "Final report of the Commission on ending childhood obesity", Retrieved from: www.who.int/dietphysicalactivity/childhood/en/
- Yoo, C., & MacInnis, D. (2005). The brand attitude formation process of emotional and informational ads. *Journal of Business Research*, 58, 1397-1406.
- Young, B. (1990). *Children and Television Advertising*. Oxford, UK: Clarendon Press.
- Zhang, H., Sun, J., Liu, F. & Knight, J. G. (2014). Be rational or be emotional: advertising appeals, service types and consumer responses. *European Journal of Marketing*, 48(11/12), 2105 - 2126.

- CHAPTER 3 -
FEAR VS. HUMOR APPEALS: A COMPARATIVE STUDY OF
CHILDREN'S RESPONSES TO ANTI-SMOKING ADVERTISEMENTS

1. INTRODUCTION

Progress in adopting anti-tobacco measures has led to a gradual decline in smoking rates, particularly in developed countries. Despite these measures, the number of people that smokes worldwide remains high (World Health Organization - WHO, 2015).

In the United States (US) nearly 42 million of adults are tobacco dependent (U.S. Department of Health and Human Services - HHS, 2014) and a survey requested by the European Commission reported that 26% of respondents in the European Union (EU) currently smoke, with an average of 14.2 cigarettes smoked per day (Special Eurobarometer 429, 2015).

The vast majority of smokers begin to use cigarettes or other forms of tobacco during adolescence. For this reason, most countries in the world are attempting to combat the problem by using mass media campaigns and the school curriculum to reduce youth tobacco prevalence (Mississippi State Department of Health - MSDH, 2014; Osservatorio Fumo Alcol e Droga - OSSFAD, 2014; Schar et al., 2006).

The Global Youth Tobacco Survey Collaborative Group (GYTS, 2002) estimated that globally, about 20% of adolescents between 13 and 15 years of age use tobacco and about 25% of adolescents that smoke cigarettes begin before age 10. For example, data from the US show that each day in that country, over 3,800 people under 18 smoke their first cigarette and over 1,000 young people under 18 become daily cigarette smokers (HHS, 2012). In the EU, the number of people at or under 13 years that become daily smokers has generally decreased over the past 20 years, but unfortunately, there are some exceptions, with rates in Cyprus, France, Italy and Romania remaining stable. In addition, Italy is the EU country in which there is the highest proportion (37%) of current smokers between 15 and 16 years of age. (European School Survey Project on Alcohol and Other Drugs - ESPAD, 2015).

Most people that begin smoking during childhood or adolescence remain tobacco users in adulthood because of the addictive effects of nicotine. Smoking cessation is problematic for adults and for young people, and the continuous use of cigarettes is related to short and long-term health consequences. Health risks for young smokers include impairment to the respiratory and cardiovascular systems, development of cancer, deterioration of the reproductive function, and reduced life expectancy (HHS, 2012; OSSFAD, 2014).

The introduction of the e-cigarettes has exacerbated the situation. The use of e-cigarettes among minors has recently increased and this gives young persons the possibility to try many types of device that can contain nicotine, flavorings and other additives. Although aerosol from e-cigarettes is less harmful than common cigarette smoke, the presence of nicotine can cause addiction, priming for use of other addictive substances, reduced impulse control, deficits in attention and cognition, and mood disorders in adolescents (HHS, 2016).

Minors can be easily influenced by the peer group and the social context in which they live, but a great deal of the responsibility for youth smoking is also due to the tobacco and e-cigarettes marketing. Young people are an important target for these products and recent data show that companies in the US spent \$9.2 billion in 2012 on marketing for cigarettes and \$125 million in 2014 for e-cigarettes (HHS, 2016).

Companies promote the message that the use of cigarettes and e-cigarettes is an ordinary and glamorous activity through a variety of media such as television, movies, magazines, and the internet. The strategies employed to make cigarettes and e-cigarettes attractive are similar, and range from using celebrities' endorsement, reducing prices, and sponsoring sport events to using claims related to sexual themes, the increase of the social status, and the customer satisfaction (HHS, 2012; HHS, 2016). In addition, e-cigarettes advertisements contain health-related themes, encouraging the idea that these devices can help people to reduce cigarettes' use (Duke et al., 2014), but currently there is no evidence to recommend e-cigarettes as an effective method to quit smoking (Kalkhoran & Glantz, 2016; OSSFAD, 2016).

Many studies have found an association between tobacco marketing and the consumption of these products, the attitude toward smoking and the brand awareness in young audience (Arora et al., 2008; Gilpin et al., 2007; O'Hegarty et al., 2009; Samir et al., 2014). Consequently, the prevention of youth smoking has become of primary importance, and research has indicated that social marketing actions and social advertisements can be effective ways to influence young people positively (Allen et al., 2015; Brinn et al., 2012; Farrelly et al., 2003; Solomon et al., 2009).

Since youth often smoked their first cigarette early, it seems necessary to adopt anti-tobacco campaigns targeting children. Today, the majority of anti-smoking public service announcements (PSAs) are directed toward adolescents and young adults despite evidence indicating that anti-smoking advertising can reduce smoking commencement in pre-adolescence (Wakefield et al., 2003). As a result, there is a lack of research on the effectiveness of anti-tobacco PSAs targeting children and on how they perceive different type of messages and appeals (Devlin et al., 2007).

Research on advertisements for children has often focused on the effects of several persuasive elements such as message content, the best characters for commercials and production techniques, but has not considered a comparison between the humor and fear appeals. This type of study has proved to be useful in other contexts such as HIV/AIDS prevention or anti-alcohol abuse messages (Lee & Ferguson, 2002; Lee & Shin, 2001; Soscia et al., 2012).

Given the lack of comparative research on the effectiveness of humor and fear appeals, this study sought to understand whether different advertisement appeals (i.e., fear or humor appeals) have different effects on children's affective reactions toward PSAs, on children's beliefs about smoking and on children's behavioral intentions to smoke. This paper presents the findings of a mixed methods research study conducted in Italy with children aged 8 to 11.

2. THEORETICAL BACKGROUND

Emotional appeal is widely used in anti-smoking advertisements. This type of appeal elicits an affective response in viewers that it can be positive or negative. The feelings

aroused (positive or negative) will be associated by the viewer with the message and the theme of the advertisement.

Negative tone in advertising is termed “fear” or “threat” appeal, and is defined as “a persuasive message that attempts to arouse the emotion of fear by depicting a personally relevant and significant threat and then follows this description of the threat by outlining recommendations presented as feasible and effective in deterring the threat” (Witte, 1994, p.114).

The fear or threat appeal is composed of a threat component and a coping component (Mongeau, 2012; Shen & Dillard, 2014). Protection motivation theory (Rogers, 1975) proposed that the threat component is subdivided into a description of the severity of the issue (i.e., a description of negative and undesirable consequences) and the susceptibility (or vulnerability) of the audience (i.e., the personal risks). Another aspect of the threat appraisal is rewards. Rewards refer to the positive aspects of starting or continuing the unhealthy behavior. The coping component is subdivided into response efficacy (i.e. the idea that the recommended behavior will alleviate the health threat) and self-efficacy (i.e., the audience’s ability to perform the recommended behavior). The coping component is influenced by the response costs. The response costs are the costs of putting the recommended behavior into practice.

Several theoretic models have attempted to provide explanations of the psychological mechanisms involved in reactions aimed at reducing fear. These include the drive-reduction model (Hovland et al., 1953), the parallel response model (Leventhal, 1970), the protection motivation theory (Rogers, 1975), the extended parallel processing model (Witte, 1992), and the stage model (De Hoog et al., 2007).

Currently, there is no agreement regarding the effectiveness of fear appeal compared to humor appeal, particularly concerning fear and humor appeals aimed at adolescents. It is clear that anti-smoking advertising can influence tobacco use in young people, but further research should be undertaken to understand which message tone is more suitable to pre-adolescents and adolescents (Devlin et al., 2007; Graham & Phau, 2013; Wakefield et al., 2003).

Some studies (Allen et al., 2015; Biener et al., 2004; Terry-McElrath et al., 2005) have shown that fear appeals have the most consistent effect on young people because the provocative tone and intense images can lead to discussion about, and greater attention paid to, the PSA's argument. In contrast, other studies (Hastings et al., 2004; Sutfin et al., 2008) have found that adolescents respond well to humor appeals because the pleasantness of an advertisement can translate into a favorable attitude toward the theme of the advertisement. In addition, fear appeals can provoke defensive reactions, inducing the audience to avoid or reject the message. In particular, young people could consider themselves invulnerable because of their young age or different from the target audience of the PSA, and consequently they perceive health risks messages as irrelevant (Devlin et al., 2007; Pechmann, 2001).

As mentioned previously, the majority of research on anti-smoking PSAs has focused on the effects of different message strategies and executional characteristics on adolescents and young adults only. Few studies have examined the impact of preventive advertisements on children, and particularly little is known about the effectiveness of fear appeals on them. The children target is different from the adolescents target because cognitive abilities change between age brackets, as do tastes and preferences. For these reasons, further research targeting children can help to design social advertisements and social marketing strategies that permit to communicate directly to them.

Charry and Demoulin (2012) expanded the literature on fear appeals by including the children target. Their results provided evidences that the fear appeal is effective in the promotion of healthy food to children. However, Lawlor (2009) underlined that humor appeals are often used in commercials for children, and children tend to favor aspects in advertisements that generate entertainment and pleasure.

Understanding how different types of message appeals can influence children is an important research topic for promoting the development of healthy lifestyle choices during childhood. Therefore, the aim of this research is to compare the impact of two different anti-tobacco PSAs targeting children: one using the humor appeal and the other using the fear appeal.

3. METHOD

This study adopted a mixed method approach by collecting and combining both quantitative and qualitative data to obtain more detailed and comprehensive results. There are four principal types of mixed method designs: the convergent parallel design (or triangulation), the explanatory sequential design, the exploratory sequential design, and the embedded design (Creswell & Plano Clark, 2011).

This study used a questionnaire for the quantitative approach combined with a semi-structured focus group for the qualitative approach by adopting a convergent parallel design. The intention was to compare the quantitative data with the qualitative data to obtain complementary outcomes and a more in-depth understanding of the results. The quantitative and qualitative data were collected and analyzed separately with equal importance (Figure 1).

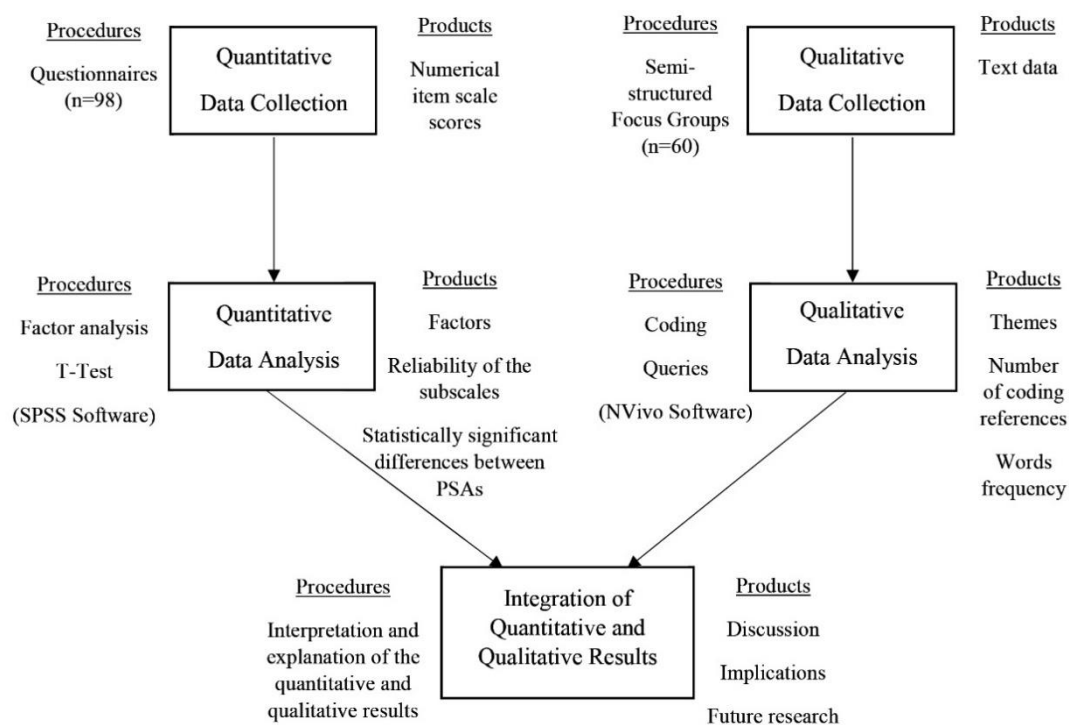


Figure 1 - Diagram for the Convergent Parallel Design

Before administering the questionnaire and conducting the focus group session, two anti-tobacco PSAs were shown to the children. In general, it is possible to find three main message theme in anti-smoking advertising (Devlin et al., 2007): negative health

consequences, social norms, and industry manipulation. The two social advertisements used in this research focused on theme of negative health consequences.

The advertisements showed to the children were “Bully” from the Real Cost national campaign of the US and “Robot” from the Reject All Tobacco (RAT) Mississippi campaign. Both advertisements were professionally dubbed into Italian.

“Bully” uses fear appeal, and studies (Duke et al., 2015; Farrelly et al., 2017; Huang et al., 2017) found that it attained high level of recall and influenced tobacco-related risk perceptions in young people. This PSA portrays the cigarette as a tiny man that bullies teenagers. The tiny man is aggressive and controls every moment of the teenagers’ day by giving them orders. The message of the advertisement is that “cigarettes are bullies, don’t let tobacco control you” (Figure 2).

“Robot” uses humor appeal. It is an advertisement that is part of a campaign for the prevention of tobacco use, and is supported by a school-based program that was able to reduce teenagers’ smoking initiation in Mississippi (Schar *et al.*, 2006). This PSA shows two scientists that are trying to train a robot to have emotions. When one of the scientists begins to smoke a cigarette, the robot gets angry and takes the cigarette out of his mouth. The message of the advertisement is “help someone quit smoking today so that they will be around tomorrow” (Figure 3).

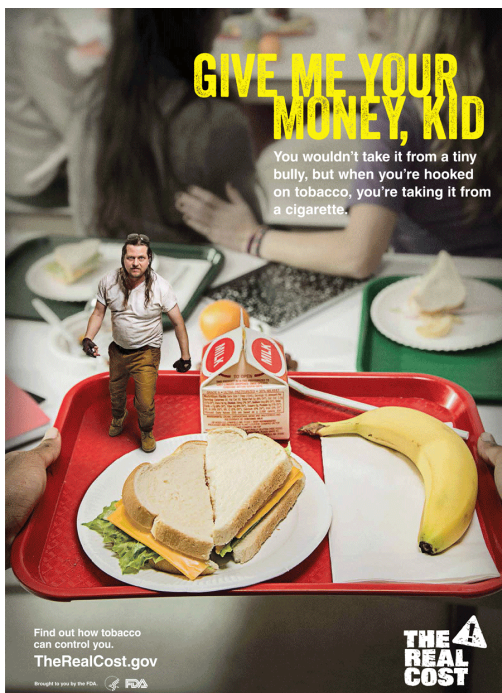


Figure 2 - Bully

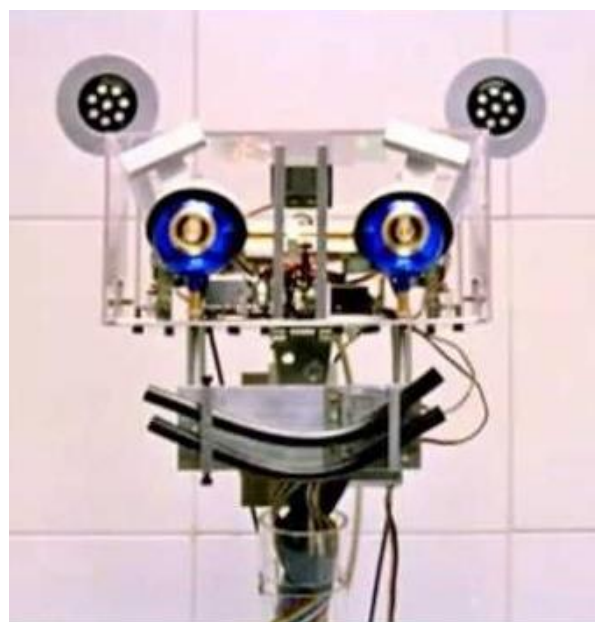


Figure 3 - Robot

3.1 Quantitative data collection (questionnaire)

This study has a cross-sectional design and was conducted with children between 8 and 11 years. The questionnaire was adapted from Derbaix and Pecheux (2003), D'Alessio, Laghi and Baiocco (2009), Baumgartner and Laghi (2012), Lioutas and Tzimitra-Kalogianni (2014) and Vermeir and Van de Sompel (2014) to be used in relation to social advertisements and translated into Italian. A four-point Likert scale (not at all = 1, a little = 2, a lot = 3, very much = 4) was used. The mid-point was not included to avoid the tendency of children to mark the neutral mid-point (Hota et al., 2010).

The items of the questionnaire were first tested with 11 children to ensure that questions were understandable, and to determine whether there was any ambiguity in the sentences. Subsequently, consent was obtained from the parents of 98 children (F = 51; M = 47), attending a primary school in Verona, Italy, and the questionnaire was administered to these children during school hours. Before the questionnaire administration, 52 children randomly selected watched “Robot” and 46 children randomly selected watched “Bully”.

3.2 Qualitative data collection (semi-structured focus group)

A series of semi-structured focus groups were conducted with a subsample of 60 children between 8 and 11 years old that had previously answered the questionnaire. The children were randomly chosen and divided into groups of five or six. The focus groups lasted a maximum of 30 minutes and were organized during school hours in separate classrooms at the above-cited primary school. The discussions were audio-recorded with the permission of the parents and the children. An interview guideline was used to ensure in-depth examination of the topics that were also explored in the questionnaire.

At the beginning of each focus groups, the children watched “Robot” and “Bully”. They were then asked to indicate which PSAs they liked and why, which of the main characters of the two PSAs they preferred and why, and finally, which PSAs convinced them that they should not try smoking and why the PSA that they indicated,

convinced them. In addition, attention was paid to the children’s beliefs about smoking derived from viewing of the two advertisements and whether there was any negative reaction (e.g., fear, rejection, disgust) caused in the children by “Bully”.

Each question was asked in a manner designed to allow the children to respond in complete freedom. The questions were modified slightly on certain occasions according to the children’s reaction and answers. All discussions of the focus groups were transcribed and then coded using NVivo 11 Plus software (Computer Assisted Qualitative Data Analysis Software - CAQDAS).

4. RESULTS

4.1 Quantitative results

A factor analysis with varimax rotation was conducted with the items of the questionnaire using SPSS software. The factor analysis yielded three different factors as expected. The reliability of the subscales was established with Cronbach’s alpha test and revealed good internal consistency for the following factors: affective reactions toward PSAs ($\alpha = 0.90$); beliefs about smoking ($\alpha = 0.80$); behavioral intentions to smoke ($\alpha = 0.75$). The final scale was composed by 11 items, and included 7 items for affective reactions toward PSAs, 2 for beliefs about smoking, and 2 for behavioral intentions to smoke (Table 1).

Table 1 - Factor analysis with varimax rotation

Items	Affective reactions	Beliefs	Behavioral intentions
Do you like this advertisement?	0.775		
Is this advertisement boring? (reverse coded)	0.570		
Is this advertisement beautiful?	0.756		
Is this advertisement funny?	0.864		
Is the protagonist of the advertisement nice?	0.830		
Does this advertisement make you happy?	0.866		
Does this advertisement make you feel good?	0.789		
Is smoking cigarettes good? (reverse coded)		0.858	
Does smoking cigarettes make you stronger? (reverse coded)		0.861	
Will you tell your friends that they do not smoke?			0.841
Will you refuse to try to smoke a cigarette?			0.787

Subsequently, an independent sample *t*-test was performed to test for differences in the mean values of the factors depending on whether “Robot” or “Bully” was viewed. The findings (Table 2) showed that there was a significant difference for the affective reactions toward PSAs, $t(72.20) = 9.066, p < 0.01$. The children that watched “Robot” PSA presented a mean ($M = 3.57$) higher than the children that watched “Bully” PSA ($M = 2.43$). In contrast, no significant differences were observed for the beliefs about smoking ($M_{Robot} = 4.00; M_{Bully} = 3.96; t(45) = 1.183, p > 0.05$) and for the behavioral intentions to smoke ($M_{Robot} = 3.59; M_{Bully} = 3.83; t(85.825) = 0.102, p > 0.05$).

Table 2 - T-test

		Levene test		T-test for Equality of Means		
		F	p-value	t	df	p-value (2-tailed)
Affective reactions mean	Equal variance assumed	15.988	0.000	9.330	96	0.000
	Equal variance not assumed			9.066	72.209	0.000**
Beliefs mean	Equal variance assumed	8.922	0.002	1.440	96	0.153
	Equal variance not assumed			1.354	45.000	0.183
Behavioral intentions mean	Equal variance assumed	8.289	0.003	-1.608	96	0.111
	Equal variance not assumed			-1.654	85.825	0.102

** $p < 0.01$; * $p < 0.05$

4.2 Qualitative results

4.2.1 Affective reactions toward PSAs

The answers related to which PSAs children liked and why, and which characters of the two PSAs they preferred and why were coded as the parent node “affective reactions toward PSAs”. Children’s preferences for one or both PSAs and for one or both main characters were also coded so that a count of preferences could be obtained. As figures 4 and 5 show, the majority of coding references were for “Robot” and for the robot character.

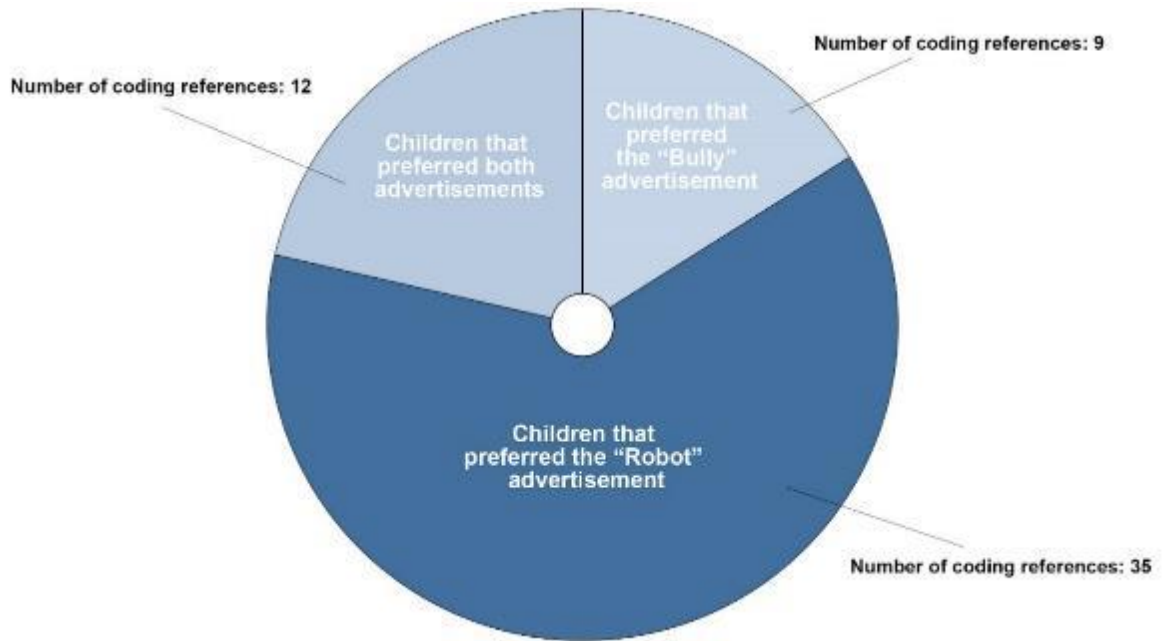


Figure 4 - Coding references for affective reactions toward PSAs - Advertisement preference

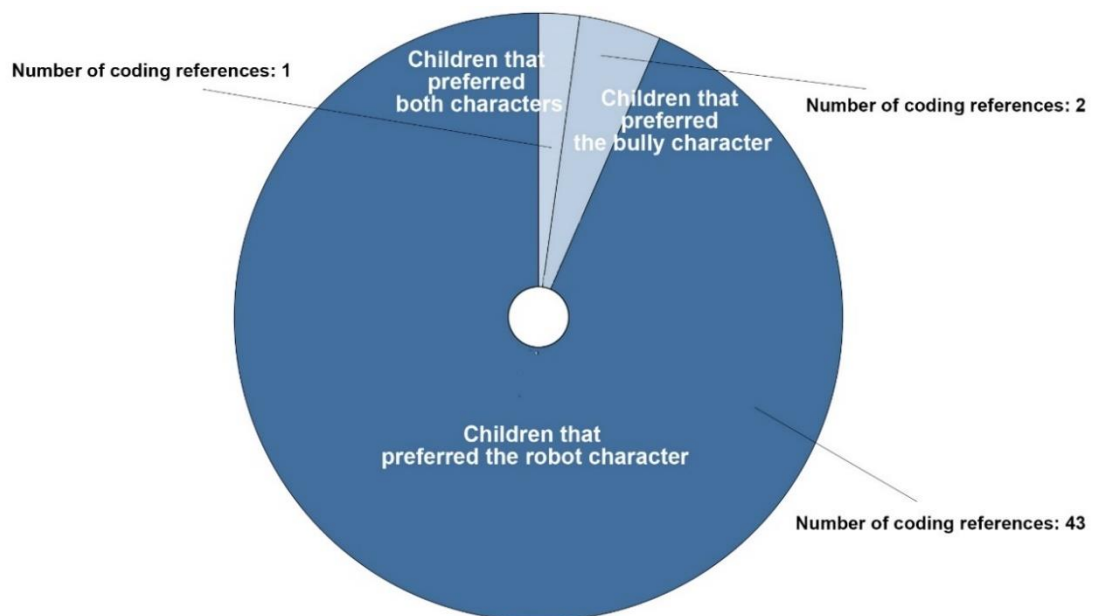


Figure 5 - Coding references for affective reactions toward PSAs - Character preference

According to children's opinions, "Robot" was mainly chosen because it was funny but also meaningful. They liked the advertisement's message and how it was conveyed by the use of the robot character. The children expressed that the protagonist made

them laugh, and although it was only a robot, they said it was particularly intelligent because it tried to help the scientist to quit smoking. Conversely, the small number of children that chose “Bully” appreciated the analogy between the bullying and cigarette addiction. The children reported that this advertisement clearly showed them the negative effects of smoking.

From the focus-group discussions, similar children’s answers emerged and were categorized into thematic areas.

The children that spoke about “Robot” and its main character often described the PSA and the character as funny, nice, and meaningful, and expressed that it made them laugh:

- *It’s funny and it explains that smoking is bad and there is also the robot that makes laugh.*
- *It has a good message, that is, you must not smoke, and then the ad is funny and not too aggressive.*
- *The ad is nice for children but it also has a meaning because it speaks about when the robot is happy or not, when they [the scientists] do happy or sad things... The robot is happy when they do good things, then the scientist starts to smoke and the robot gets angry and it takes the cigarette out of his mouth.*
- *I liked the robot character more because I think it’s nice and also encourages children to watch it [the robot], and the children push the parents to watch it. In my opinion, the ad is more visual and it is the ad that will be more appreciated by families. So, adults will not smoke anymore because children say they do not want to.*
- *I liked the robot because it was cute and nice.*

Many children were positively impressed by the robot’s action of taking the cigarette out of the scientist’s mouth:

- *The robot ad made me laugh and I liked the part where the robot took the cigarette away.*
- *The ad made me laugh a little. I especially liked it when the robot took the cigarette out of the scientist’s mouth and it said a good thing: “Tell others to quit smoking and one day you will save a life”.*
- *I liked it because at the end the robot was happy because it took away the cigarette.*

Their favorite characteristics of the robot were its facial expressions and its capacity to feel emotions:

- *The robot feels emotions too... It is similar to the things we also feel, but then it has understood a thing we can't understand when we smoke. So, it tried to teach its engineer not smoke because it's bad for your health.*
- *I liked [the robot] because when they [the scientists] joked, the robot laughed, but when they picked up the cigarette, it was sad because smoking kills.*
- *I prefer the robot because it is funny and it made me understand the meaning more. Then, when you do something bad, the robot notice it, and when you do something good, it notice it too. Therefore, it can make the life a little bit better.*
- *The robot ad was my favorite because there was this robot that had to learn things from these two scientists; it had to acquire positive and negative things. One time, the two scientists have a break and one of them starts to smoke, in this way the roles are swapped: the robot became a sort of scientist that said that the thing [smoking] was negative.*

Children considered the robot character intelligent because it understood and explained that smoking is unhealthy. It also tried to impede the scientist from smoking cigarettes:

- *Although the robot is a machine projected by humans, it understood that smoking is bad and in fact, it took the cigarette away from the hands of its creator.*
- *I liked the ad because robots don't have a brain like us, but it realized that smoking is not good.*
- *I liked the robot because it was funny and it understood that smoking is bad...Let's say that it was also intelligent.*
- *I prefer the robot because it explains well why you must not smoke.*

In contrast, the minority of children that chose the “Bully” as the preferred PSA stated that they preferred this advertisement because it illustrated how cigarettes can influence their life. They reported that they felt the analogy between smoking addiction and bullying was appropriate for describing the negative aspects of using tobacco:

- *In my opinion, the idea that smoking is like bullies is true because, for example, my dad's fiancée always lights a cigarette before doing something.*
- *I prefer this ad because when my sister smokes, she smokes one cigarettes and immediately after that, she smokes another five.*
- *I liked the ad because it said that you must forget the tobacco...because that tiny man was like a cigarette that told you what you have to do. So, it's not a good thing.*
- *I liked the last ad more because it explains that the cigarette is like a bully, or rather, it is worse than a bully. And the ad explains that you must not smoke because it harms your body and you also waste your money for nothing.*

4.2.2 Beliefs about smoking

The beliefs related to smoking and derived from viewing the two advertisements were coded as the parent node “beliefs about smoking”. Children’s beliefs derived from “Bully” or “Robot” were coded so that it was possible to understand which PSA stimulated more discussion about smoking. As Figure 6 shows, most coding references were for “Bully”.

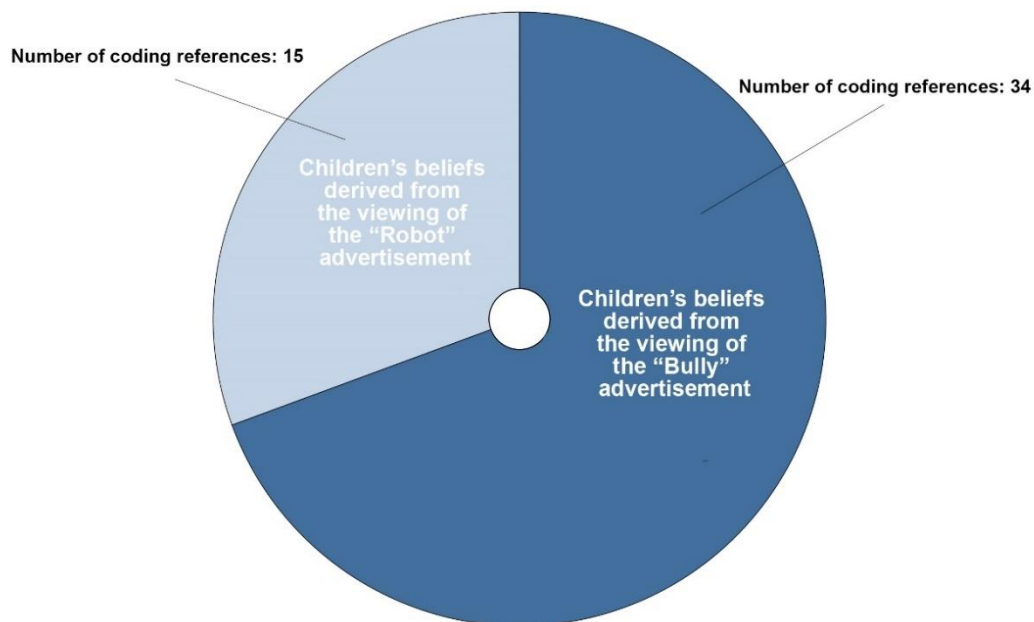


Figure 6 - Coding references for beliefs about smoking

“Bully” was able to generate spontaneous discussions among children about many important topics. They spoke about nicotine addiction, the capacity of tobacco to

change a person's life and personality, and how their friends can influence them to start to smoke. The children also provided many examples of their relatives that smoke cigarettes. "Robot" also stimulated discussions among children, but very little. Children were particularly focused on the message that they could save lives if they helped someone to quit smoking.

The children reported that after watching "Bully", they thought about their personal situation and their relatives that smoke:

- *In my opinion, the ad is very meaningful because you must not smoke, and this is something that all children tell their parents. I say it to my uncle... I say, "Uncle, don't smoke, then you live life better".*
- *My grandmother smoke and so does my aunty. I once gave my grandmother a bracelet with the words "No smoking", but she smokes anyway. The last time I cut her cigarette but she smokes anyway.*
- *I hid the cigarette packet to make my dad quit smoking.*

"Bully" conveyed the concept of nicotine addiction well, and the children stated that they understood that smokers feel the need to have frequent breaks from their activities so they can smoke many cigarettes:

- *The ad specified that the cigarette is like a man that bullies. The cigarette enslaves people who smoke and if you are experiencing a pleasant moment, you say that you must smoke... you feel obligated to smoke, but it's not right.*
- *The ad says that the cigarette is an addiction and nobody, as soon as they starts to smoke, ever stops it. For example, one morning I saw a woman who after she smoked one cigarette, immediately smoked another one.*
- *The bully is a cigarette and he gives orders to others. When you are doing something that you like and you want to smoke, you must interrupt that thing to go out to smoke.*
- *Trying to quit smoking is like having a person that tortures you to make you smoke.*

After watching "Bully", the children reported the opinion that tobacco changes a person's personality and makes the life worse:

- *The ad says that you change your character by smoking...that is, it brings you negative things.*
- *When you smoke, you become angry.*
- *Cigarettes are like bullies, that is, they ruin the life... I don't know why people do it because you shorten your life, then you feel bad. As soon as you finish smoking, you start to cough.*
- *Cigarettes are like bullies because you waste your money. For what reason? Ruining your life? Isn't it [smoking] a ticket for death?*
- *I like to live normally instead of smoking and then [if you smoke], you don't live your life, you don't do anything.*

After watching “Bully”, the children expressed their awareness that many young people begin to smoke because they want to be part of the peer group or because they are forced to smoke by their friends:

- *The ad is appropriate, especially for the middle school children because if somebody tells you “Come with me to smoke, come to learn to smoke”, you must not let yourself go just because this person is aggressive and forces you like you see in the ad. And if you speak about parents, the ad is also appropriate for them. Although they already know that they should quit smoking, they don't want to, so the ad is appropriate for them.*
- *The ad says that they [young persons] smoke not because they want to smoke but because they have friends that smoke. They are attached to their friends: “They are my friends, I want to be like them and so I start smoking”.*

The discussions derived from “Robot” are related to the concept of passive smoking and to the idea of saving lives by quitting smoking:

- *The ad says not to smoke because that way, you save a person today instead of killing one tomorrow.*
- *The ad is also addressed to others [persons that breathe secondhand smoke] because secondhand smoke is also bad for others.*
- *If you have a person that smokes next to you and you are in a car, you breathe the smoke.*
- *Robot sent a very good message, that is, if you quit smoking, then you can save a life every day.*

Some children considered the robot character an example to imitate or a machine that

they hope will exist in the future:

- *It explains that it is good if you feel [positive] emotions, but when you finish it [having a good time], you must not smoke and ruin the day just because you feel the need to smoke. If you have a child, the child can think “Today my dad isn’t smoking!”, but at the end of the day, you smoke and the child feels hurt.*
- *I recommend the ad for the children of almost all ages, and it could depict a child with the dad and the mom. For example, the mom is smoking, the child says, “No, you must not smoke!” and he takes the cigarette, puts it out and throws it away.*
- *But in my opinion the robot should be designed really and not just pretended!*

4.2.3 Behavioral intention to smoke

The answers related to which PSAs convinced children that they should not try smoking and why the PSA that they indicated, convinced them were coded as the parent node “behavioral intention to smoke”. The children’s choice for one or both PSAs were also coded so that a count of preferences could be obtained. As Figure 7 shows, the number of coding references was similar for both “Bully” and “Robot”.

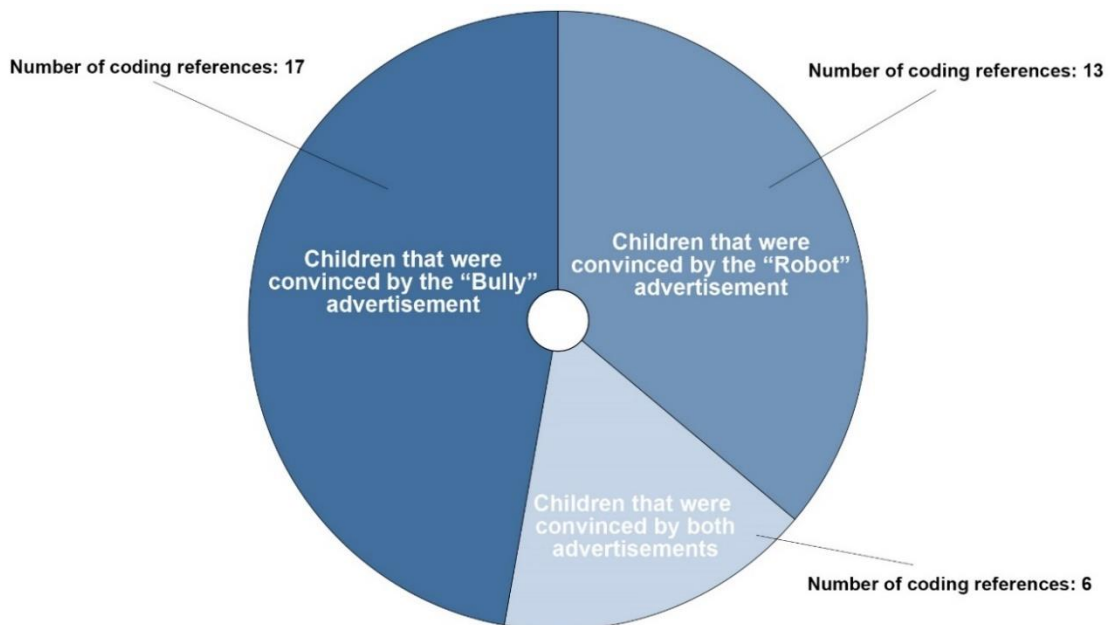


Figure 7 - Coding references for behavioral intention to smoke

A slightly larger number of children chose “Bully” as the more persuasive advertisement because it was a direct advertisement that used strong images to explain how tobacco could influence their life. The other children were convinced by “Robot” that they should not try smoking because they stated that it was particularly appropriate for the children audience.

The children reported that the aggressive actions of the tiny man in “Bully” clearly show the effect of the cigarette addiction:

- *The ad shows that if you smoke, you ruin your life and let's say that this [the addiction] harasses you.*
- *These are facts that really happen even if there isn't the tiny man.*
- *It conveys the message clearly and it shows and it explains why smoking is bad, also through the images.*
- *The Robot ad is meaningful but it is especially for children. Instead, the Bully ad tries to make you really understand this thing [the negative consequences of smoking]. Because this ad is strong, it's no picnic!*
- *The other ad [Robot] doesn't show the negative effects of cigarettes. It only says not to smoke, it doesn't show what happens if you smoke.*

The children said that “Bully” conveyed the anti-smoking message directly. However, the analogy between cigarette addiction and bullying was a little difficult to understand for some of them:

- *The ad [Bully] conveys the message that you must not smoke better. In the other ad [Robot], it seems like a game, but this ad [Bully] is more meaningful.*
- *The ad [Bully] is more direct and it makes you understand better that tobacco is bad and an addiction.*
- *In my opinion, the ad [Bully] is more direct and meaningful. Even more, it makes you understand that this is an addiction.*
- *The other ad [Robot] is nice, but Bully - maybe at the beginning it's a little difficult to understand - makes you understand better because I think it's simple to say to not smoke but the ad makes you really understand that if a person starts to smoke, that person never stops.*

Some children stated that “Bully” was persuasive because it was scary and it demonstrated that friends could convince them to try to smoke. In addition, they said that the advertisement was addressed to an older target and presented not only the topic of smoking addiction but also the problem of bullying:

- *Sometimes when you go to school and see your schoolmates smoking, it makes you want to smoke too.*
- *It [Bully] scares me a lot and in the end, there is the child that smokes because the man convinced him to.*
- *This ad [Bully] convinced me more because it is for older people and you see that tobacco is bad, and because the bully told the boy to open his hands and he jumped in [the hands] like a cigarette that you hold in your hands.*
- *[Bully has] another type of message...not only about cigarettes. In my opinion, you understand that you must not be a bully, you must not steal money, you must not beat up others.*

The answers of the children who chose “Robot” were similar to those provided in relation to affective reactions toward PSAs and beliefs about smoking. The children expressed that they liked the idea of saving other people’s lives and the robot’s action of taking the cigarette out of the scientist’s mouth:

- *The Robot ad convinced me because it says you must not smoke and you must not make people around you smoke.*
- *I choose Robot because when the scientist tried to light a cigarette, the robot went to take the lighter immediately.*
- *I understood that the robot says that smoking is bad, and maybe if you smoke too many cigarettes, you die.*
- *As soon as the robot saw that the creator was putting the cigarette in his mouth, it took away the cigarette.*
- *Because you see that the robot steals the cigarette.*

4.2.4 Negative reactions caused by the “Bully” PSA

During the focus group discussions, the children were free to express their opinions and their emotions (negative or positive) about the advertisements. As expected, the fear appeal generated negative comments and reactions. Similar children’s answers emerged and were categorized into thematic areas.

The children expressed that they were appalled by the bully’s behavior because he stole the boy’s money and forced him to smoke:

- *I didn’t like when the tiny bully pushed the boy against the locker. He must not force him to smoke; if the boy wants to smoke, he will do it by himself.*
- *The ad gives me a sense of violence committed against other persons.*
- *The ad is convincing about the idea that there’s no point in smoking, but let’s say, it’s a little violent because you see this tiny bully that forces others to do what he wants and gives orders. And he is like a cigarette.*
- *The thing I didn’t like was the mini person because he forced everybody to give up the money.*
- *I don’t like that he forces to do everything he wants, for example, you pause the movie because you have to go to smoke, or you are dining and he tells you to go out because you have to smoke. He forces you to do things.*

Some children saw the bully character as similar to the devil because he tempted boys and girls:

- *The bully was like the devil that lured the boy and he told him to do bad things. Sometimes the devil can force you to do bad things.*
- *The ad gives me a feeling of being afraid of not being able to resist the temptation.*

“Bully” was described by the children as an advertisement that was very meaningful but violent at the same time. The children expressed the feeling that the tiny man was unpleasant and too aggressive, and that they did not like this character. In addition, a minority of them stated they were scared by him or did not want to watch this PSA again:

- *The ad is very meaningful but also violent.*

- *It is violent and scare you a little because the cigarette enslaves people for nothing.*
- *It seemed me like a horror film!*
- *The ad was very disturbing.*
- *It scared me when he [the bully] said to fork it over.*
- *The bully was too aggressive and too violent!*
- *I would never want to see this ad again because I will have nightmares.*

The children suggested that this PSA was not appropriate for the younger children because of the violent content and the fact that the advertisement was not immediately understandable:

- *If you show this ad to the younger children when there is the commercial break, they will get scared.*
- *I don't like the ad because it was too aggressive for children. But it was also beautiful because it has a good message. For example, when there was the girl that spent the money uselessly, or when the boy must smoke because he couldn't resist.*
- *Let's say that the ad should be recommended to a more mature audience because if younger children watch it, they don't understand anything.*
- *Since the boy speaks to a tiny man or the girl gives money to him, what can younger children understand about them? Is the tiny man a bully and is the girl forced to give him the money? They [children] don't understand the difference [between bullying and addiction].*
- *I didn't understand why he said "If I say fork it over, you fork it over". I didn't understand these things, that is, it seemed me a bully... I didn't understand who the man was until the writing appeared.*
- *It seems more an anti-bullying advertisement.*

4.2.5 Word Frequency

After codification, a word frequency query was run to find the 15 words most used by the children to speak about each PSA (Table 3). The results confirmed the thematic areas presented in the above sections.

In the children's discussions, the word "cigarette(s)" and the verb "to smoke" were obviously repeated often because these terms represented the central theme of both

advertisements. As discussed, the children considered “Robot” and the robot character funny, and it made them laugh. They enjoyed the robot’s action of taking the cigarette out of the scientist’s mouth, and they expressed that they thought they could do the same with their parents. In contrast, “Bully” was evaluated as a little violent but that, despite this, it was an advertisement that conveyed an important message. Cigarette addiction was compared to a small bully that forced boys to give their money away and to smoke. This analogy allowed the children to understand that smoking addiction can make a persons’ life worse.

Table 3 - Word frequency

Words: <i>Robot</i>	Count	Words: <i>Bully</i>	Count
robot	83	to smoke	92
to smoke	60	cigarette(s)	39
cigarette(s)	29	bully(ies)	31
funny	14	boy(s)	18
children/child	13	children/child	17
to take away/out	11	money	13
scientist(s)	10	smoke	11
mom	10	life	11
to laugh	8	violent	10
smoke	7	fear	8
meaning/meaningful	7	smaller/tiny	8
nice	7	friends	8
mouth	6	meaningful	8
happy	5	persons	8
to die	4	dad	7

5. INTEGRATION OF RESULTS

The quantitative results indicated that there was a significant difference in the affective reactions toward PSAs in that “Robot” was preferred respect to “Bully”. On the contrary, no significant differences were observed for the beliefs about smoking and for the behavioral intentions to smoke.

In the same way, the qualitative results demonstrated that “Robot” and the robot

character were appreciated more by children than “Bully” and its character (i.e., affective reactions toward PSAs). The number of coding references for which PSAs convinced children that they should not try to smoke (i.e., behavioral intentions to smoke) was similar; however there was a slight preference for “Bully”. Conversely, the number of coding references for the beliefs about smoking derived from viewing “Bully” were clearly higher than they were for “Robot”.

The results from the qualitative phase converged with those of the quantitative phase, with the only exception of the beliefs about smoking. This difference was probably due to the opportunity given the children to reflect more deeply and express their ideas fully during the focus group sessions. The strength of the mixed methods research is precisely the possibility of combining both quantitative and qualitative data to obtain more detailed and comprehensive results.

In conclusion, it is possible to affirm that quantitative data were validated by qualitative data and were also enriched by providing a full understanding of the children’s answers.

6. DISCUSSION

6.1 Theoretical implications

The results of the quantitative and qualitative phases highlighted that children appreciated the advertisement (i.e., “Robot”) that they found funny and that made them laugh. This finding was in accordance with other research (Lawlor, 2009) that has found that children tend to favor aspects that generate entertainment and pleasure in advertisements.

Both PSAs seemed to be well designed and effective because there were no significant differences in the answers related to the children’s behavioral intentions, despite the slight preference for “Bully” in the qualitative phase when children reported which PSA convinced them not to try smoking. Further, in analyzing these children’s discussions in depth, it was noted that the choice explanations for “Bully” touched on a large variety of topics, contrary to the choice explanations for “Robot”.

In addition, during the focus group session, “Bully” was able to generate more

spontaneous discussions (i.e., beliefs about smoking) among children about many important themes. They spoke about nicotine addiction, the capacity of tobacco to change a person's life and his personality and how their friends can influence them to start smoking. In contrast, after viewing "Robot", the children discussed only the idea that they could save lives if they helped someone to quit smoking and the possibility of imitating the robot's actions.

While "Bully" does not present any extreme scenes, it triggered a range of negative emotions and comments in children. In this way, it was possible that the fear appeal increased the attention and allowed children to consider the implications of the advertisement's content for their own health. According to Charry and Demoulin's study (2012), the threat appeals persuade pre-adolescents through an affective process and the elicitation of high levels of fear are not essential to effectiveness. Some studies indicated that strong fear appeals were more persuasive than low fear appeals (Witte & Allen, 2000), but Dickinson and Holmes (2008) found that low and moderate threats were the most effective for adolescents in terms of persuasiveness.

A significant characteristic of "Bully" was the analogy between smoking addiction and bullying. Peracchio and Luna (1998) suggested that children often use analogical reasoning. This means that it is necessary to draw a parallel between smoking and items familiar to children to design a message that communicate the short and long term health consequences directly to them.

Thus, while humor appeal appears to be a useful method to convey a social theme in a pleasant way and to create a likeable character that becomes an example for children to imitate, it is necessary to develop a fear appeal in order to make children reflect carefully about topics related to unhealthy habits.

6.2 Practical implications

As previously mentioned, "Bully" used moderate fear appeal because the target of the advertisement was minors. In fact, the reactions elicited in the children varied: some children laughed because of the small dimension of the bully character, nevertheless, most of them were appalled by the bully's aggressive behavior and they kept quiet and straight face during the viewing of the advertisement.

This is of interest because the children's reaction to "Bully" demonstrate that governmental institutions and advertisers could use moderate fear appeal instead of strong fear appeal to convey health messages efficaciously to minors.

There could be debate about the ethics of using fear appeals addressed to children, but we should think that antagonists and negative situations have always been used into fables and fairy tales as a means of education to make children learn about what is good or bad. Fear appeal can be considered a sort of fable or fairy tale redefined for the modern age.

Given that the first cigarette is often smoked early by young people, it seems necessary to adopt anti-tobacco campaigns targeting children. Today, most PSAs are directed only toward adolescents and young adults, but as the findings of this study demonstrated, the creation of anti-tobacco advertising campaign for children could help them to understand the negative consequences of smoking and influence them already during childhood.

An aspect to take into account when designing a social advertisement is the age differences in children's understanding of advertising. From the focus group discussions emerged that some children did not immediately understand the analogy between nicotine addiction and bullying. This was particularly true for the youngest children. Consequently, it may be useful that governmental institutions and advertisers plan advertising campaigns with an age approach by using different themes for different age brackets.

The two social advertisements of this research focused on the theme of health consequences, but as children's discussions demonstrated, they also found the theme of social norms in "Bully". The presence of the character that bullied boys and girls called to children's mind the idea that the peer group force them to start smoking. Therefore, the combination of the theme of health consequences and social norms in one PSA could be a good option for a future social advertisement.

6.3 Limitations and future research

This study provided some useful insight into which appeals (i.e., humor or fear) and advertisement's elements can help to convey an anti-tobacco message to children; however, there are some limitations to consider.

More research is needed in the following areas. First, this study examined only children's behavioral intentions, but future research should also examine their real behaviors (i.e., a reduction of tobacco initiation) after a period following repeated viewing of PSAs. Second, the two advertisements watched by the children were anti-smoking advertisements. Future studies should consider a comparison between fear appeals and humor appeals concerning other social subjects. Third, this study analyze the theme of negative health consequences but it could be relevant to analyze the impact on children of different fear appeal contents (i.e., the theme of negative health consequences, the theme of social norms and the theme of industry manipulation) used alone and/or combined in one PSA.

REFERENCES

- Allen, J. A., Duke, J. C., Davis, K. C., Kim, A. E., Nonnemaker, J. M., & Farrelly, M. C. (2015). Using mass media campaigns to reduce youth tobacco use: a review. *American Journal of Health Promotion, 30*(2), e71-e82.
- Arora, M., Reddy, K. S., Stigler, M. H., & Perry, C. L. (2008). Associations between tobacco marketing and use among urban youth in India. *American Journal of Health Behavior, 32*(3), 283-294.
- Baumgartner, E., & Laghi, F. (2012). Affective responses to movie posters: differences between adolescents and young adults. *International Journal of Psychology, 47*(2), 154-160.
- Biener, L., Ji, M., Gilpin, E. A., & Albers, A. B. (2004). The impact of emotional tone, message, and broadcast parameters in youth anti-smoking advertisements. *Journal of health communication, 9*(3), 259-274.
- Brinn, M. P., Carson, K. V., Esterman, A. J., Chang, A. B., & Smith, B. J. (2012). Mass media interventions for preventing smoking in young people. *Evidence-Based Child Health: A Cochrane Review Journal, 7*, 86-144.
- Charry, K. M., & Demoulin, N. T. (2012). Behavioural evidence for the effectiveness of threat appeals in the promotion of healthy food to children. *International Journal of Advertising, 31*(4), 773-794.
- Creswell, J. W. & V. Plano Clark, V. (2011). *Designing and Conducting Mixed Methods Research*. Thousand Oaks, CA: Sage Publications.
- D'Alessio, M., Laghi, F., & Baiocco, R. (2009). Attitudes toward TV advertising: a measure for children. *Journal of Applied Developmental Psychology, 30*, 409-418.
- De Hoog, N., Stroebe, W., & de Wit, J. B. F. (2007). The impact of vulnerability to and severity of a health risk on processing and acceptance of fear-arousing communications: A meta-analysis. *Review of General Psychology, 11*, 258-285.
- Derbaix, C. & Pecheux, C. (2003). A new scale to assess children's attitude toward TV advertising. *Journal of Advertising Research, 43*, 390-399.
- Devlin, E., Eadie, D., Stead, M., & Evans, K. (2007). Comparative study of young people's response to anti-smoking messages. *International Journal of Advertising, 26*(1), 99-128.
- Dickinson, S., & Holmes, M. (2008). Understanding the emotional and coping responses of adolescent individuals exposed to threat appeals. *International Journal of Advertising, 27*(2), 251-278.
- Duke, J. C., Alexander, T. N., Zhao, X., Delahanty, J. C., Allen, J. A., MacMonegle, A. J., & Farrelly, M. C. (2015). Youth's awareness of and reactions to the real cost national tobacco public education campaign. *PLoS ONE, 10*(12), 1-12.

- Duke, J.C., Lee, Y.O., Kim,A.E., Watson, K.A., Arnold, K.Y., Nonnemaker, J.M., & Porter, L. (2014). Exposure to electronic cigarette television advertisements among youth and young adults. *Pediatrics*, *134*(1), e29-e36.
- European School Survey Project on Alcohol and Other Drugs (ESPAD) (2015). Report. Retrieved from: http://www.espad.org/sites/espad.org/files/ESPAD_report_2015.pdf
- Farrelly, M. C., Duke, J. C., Nonnemaker, J., MacMoneggle, A. J., Alexander, T. N., Zhao, X., Delahanty, J. C., Rao, P., & Allen, J. A. (2017). Association between the Real Cost media campaign and smoking initiation among youths - United States, 2014 - 2016. *Morbidity and Mortality Weekly Report*, *66*(2), 47-50.
- Farrelly, M.C., Niederdeppe, J., & Yarsevich, J. (2003). Youth tobacco prevention mass media campaigns: past, present, and future directions. *Tobacco Control*, *12*, i35-i47.
- Gilpin, E.A., White, M.M., Messer, K., & Pierce, J.P. (2007). Receptivity to tobacco advertising and promotions among young adolescents as a predictor of established smoking in young adulthood. *American Journal of Public Health*, *97*(8), 1489-1495.
- Graham, F., & Phau, I. (2013). Adolescent and young adult response to fear appeals in anti-smoking messages. *Young Consumers*, *14*(2), 155 - 166.
- Hastings, G., Stead, M., & Webb, J. (2004). Fear appeals in social marketing: Strategic and ethical reasons for concern. *Psychology & Marketing*, *21*(11), 961-986.
- Hota, M., Càceres, R. C. & Cousin, A. (2010). Can Public-Service Advertising change children's nutrition habits?, *Journal of Advertising Research*, *50*, 460-477.
- Hovland, C., Janis, I., & Kelly, H. (1953). *Communication and persuasion*. New Haven, CT: Yale University Press.
- Huang, L. L., Lazard, A. J., Pepper, J. K., Noar, S. M., Ranney, L. M., & Goldstein, A. O. (2017). Impact of the Real Cost campaign on adolescents' recall, attitudes, and risk perceptions about tobacco use: a national study. *International Journal of Environmental Research and Public Health*, *14*(1), 42.
- Kalkhoran, S., & Glantz S. A. (2016). E-cigarettes and smoking cessation in real-world and clinical settings: a systematic review and meta-analysis. *The Lancet Respiratory Medicine*, *4*(2), 116-128.
- Lawlor, M. (2009). Advertising connoisseurs: children's active engagement with and enjoyment of television advertising. *Irish Marketing Review*, *20*(1), 23-24.
- Lee, M. J., & Ferguson, M. A. (2002). Effects of anti-tobacco advertisements based on risk-taking tendencies: Realistic fear vs. vulgar humor. *Journalism & Mass Communication Quarterly*, *79*(4), 945-963.

- Lee, M. J., & Shin, M. (2011). Fear versus humor: the impact of sensation seeking on physiological, cognitive, and emotional responses to antialcohol abuse messages. *The Journal of psychology, 145*(2), 73-92.
- Leventhal, H. (1970). Findings and theory in the study of fear communications. In L. Berkowitz (Ed), *Advances in experimental social psychology* (Vol. 5, pp. 119–186). New York, NY: Academic Press.
- Lioutas, E. D., & Tzimitra-Kalogianni, I. (2014), ‘I saw Santa drinking soda!’ Advertising and children's food preferences. *Child: Care, Health and Development, 41*(3), 424-433.
- Mississippi State Department of Health - Office of Tobacco Control (MSDH) (2014). Annual report 2014 - Break the chain. Retrieved from: http://msdh.ms.gov/msdhsite/_static/resources/5413.pdf
- Mongeau, P. A. (2012). Fear appeals. In *The SAGE handbook of persuasion: developments in theory and practice* (pp. 184-199). Thousand Oak, CA: SAGE Publications Inc.
- O'Hegarty, M., Thorne, S., Pederson, L. L., Asman, K., & Malarcher, A. (2009). Cigarette brand preference among middle and high school students who are established smokers-United States, 2004 and 2006. *Morbidity and Mortality Weekly Report, 58*(5), 112-115.
- Osservatorio Fumo Alcol e Droga (OSSFAD) (2014). I giovani e il fumo di tabacco. Retrieved from: http://www.iss.it/binary/fumo4/cont/I_Giovani_e_il_fumo_di_tabacco.pdf
- Osservatorio Fumo Alcol e Droga (OSSFAD) (2016). Rapporto nazionale sul fumo 2016. Retrieved from: http://www.iss.it/binary/ofad4/cont/Pacifici_1.pdf and http://www.iss.it/binary/ofad4/cont/Pacifici_2.pdf
- Pechmann, C. (2001). Changing adolescent smoking prevalence: impact of advertising interventions. The National Cancer Institute, Smoking and Tobacco Control Monograph No. 14. Retrieved from: https://cancercontrol.cancer.gov/brp/tcrb/.../14/14_10.pdf
- Peracchio, L. A., & Luna, D. (1998). The development of an advertising campaign to discourage smoking initiation among children and youth. *Journal of Advertising, 27*(3), 49-56.
- Rogers, R. W. (1975). A protection motivation theory of fear appeals and attitude change. *The Journal of Psychology, 91*(1), 93-114.
- Samir, S., Ambrose, B.K., Lee, W., Sargent, J., & Tanski, S. (2014). Direct-to-consumer tobacco marketing and its association with tobacco use among adolescents and young adults. *Journal of Adolescent Health, 55*(2), 209-215.
- Schar, E., Gutierrez, K., Murphy-Hoefer, R., & Nelson D.E. (2006). Tobacco use prevention media campaigns: lessons learned from youth in nine countries. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and

- Health. Retrieved from: https://stacks.cdc.gov/view/cdc/11400/cdc_11400_DS1.pdf
- Shen, L., & Dillard, J. P. (2014). Threat, fear, and persuasion: review and critique of questions about functional form. *Review of Communication Research*, 2(1), 94-114.
- Solomon, L.J., Bunn, J.Y., Flynn, B.S., Pirie, P.L., Worden, J.K., & Ashikaga, T. (2009). Mass media for smoking cessation in adolescents. *Health Education and Behavior*, 36, 642-659.
- Soscia, I., Turrini, A., & Tanzi, E. (2012). Non Castigat Ridendo Mores: evaluating the effectiveness of humor appeal in printed advertisements for HIV/AIDS prevention in Italy. *Journal of health communication*, 17(9), 1011-1027.
- Special Eurobarometer 429 (2015). Attitudes of Europeans towards tobacco and electronic cigarettes. Retrieved from: http://ec.europa.eu/commfrontoffice/publicopinion/archives/ebs/ebs_429_en.pdf
- Sutfin, E. L., Szykman, L. R., & Moore, M. C. (2008). Adolescents' responses to anti-tobacco advertising: exploring the role of adolescents' smoking status and advertisement theme. *Journal of health communication*, 13(5), 480-500.
- Terry-McElrath, Y., Wakefield, M., Ruel, E., Balch, G. I., Emery, S., Szczypka, G., Clegg-Smith, K. & Flay, B. (2005). The effect of antismoking advertisement executional characteristics on youth comprehension, appraisal, recall, and engagement. *Journal of health communication*, 10(2), 127-143.
- The Global Youth Tobacco Survey Collaborative Group (GYTS) (2002). Tobacco use among youth: a cross country comparison. *Tobacco Control*, 11, 252-270.
- U.S. Department of Health and Human Services (HHS) (2012). Preventing tobacco use among youth and young adults: a report of the surgeon general. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health. Retrieved from: https://www.ncbi.nlm.nih.gov/books/NBK99237/pdf/Bookshelf_NBK99237.pdf
- U.S. Department of Health and Human Services (HHS) (2014). The health consequences of smoking - 50 years of progress: a report of the surgeon general. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health. Retrieved from: <https://www.surgeongeneral.gov/library/reports/50-years-of-progress/full-report.pdf>
- U.S. Department of Health and Human Services (HHS) (2016). E-cigarette use among youth and young adults. A report of the surgeon general. Atlanta, GA: U.S. Department of Health

and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health. Retrieved from: https://www.cdc.gov/tobacco/data_statistics/sgr/e-cigarettes/pdfs/2016_sgr_entire_report_508.pdf

- Vermeir, I., & Van de Sompel, D. (2014). Assessing the what is beautiful is good stereotype and the influence of moderately attractive and less attractive advertising models on self-perception, ad attitudes, and purchase intentions of 8-13-year-old children. *Journal of Consumer Policy*, 37(2), 205.
- Wakefield, M., Flay, B., Nichter, M., & Giovino, G. (2003). Effects of anti-smoking advertising on youth smoking: a review. *Journal of Health Communication*, 8(3), 229-247.
- Witte, K. (1992). Putting the fear back into fear appeals: The extended parallel process model. *Communications Monographs*, 59(4), 329-349.
- Witte, K. (1994). Fear control and danger control: A test of the extended parallel process model (EPPM). *Communication Monographs*, 61(2), 113-134.
- Witte, K., & Allen, M. (2000). A meta-analysis of fear appeals: Implications for effective public health campaigns. *Health Education & Behavior*, 27(5), 591-615.
- World Health Organization (WHO) (2015). Report on the global tobacco epidemic. Retrieved from: http://apps.who.int/iris/bitstream/10665/178574/1/9789240694606_eng.pdf?ua=1&ua=1

- CHAPTER 4 -

INFLUENCE OF PSA LIKEABILITY ON CHILDREN'S BEHAVIORAL INTENTIONS: ROLE OF POSITIVE EMOTIONS AND PSA CREDIBILITY

1. INTRODUCTION

Childhood obesity is one of the most alarming global problem of our century. The percentage of obesity among children and youth has more than tripled in many European countries and in the United States since the 1970s (Center for Disease Control and Prevention, 2017; EU Action Plan on Childhood Obesity 2014-2020, 2014). For example, in the European Union (EU) area, around 1 in 3 children aged 6-9 years were overweight or obese in 2010 and in the United States, 12.3 million children and adolescents were obese in 2011 (EU Action Plan on Childhood Obesity 2014-2020, 2014; National Collaborative on Childhood Obesity Research, 2011). The World Health Organization (WHO) reported that globally, over 42 million children under the age of 5 years were estimated to be overweight in 2015 (WHO, 2016).

Certain studies (Center for Disease Control and Prevention, 2017; EU Action Plan on Childhood Obesity 2014-2020, 2014; Lobstein et al., 2004; Ogden et al., 2015) have revealed that childhood obesity is associated with many health risks such as asthma, sleep apnea, bone and joint problems, type 2 diabetes, hyperinsulinaemia, poor glucose tolerance, hypertension, and risk factors for heart disease. In addition, children who are obese or overweight before puberty will probably continue to be so during adulthood (WHO, 2016).

Further, obesity influences the social and emotional health of a child. The self-esteem of obese children is often low, and these children are teased and bullied more by peers about their body shape. Consequently, they are more likely to suffer from depression and isolation than other children (Center for Disease Control and Prevention, 2017; Lobstein et al., 2004).

A multiplicity of factors affects the eating behaviors of youth (e.g., sedentariness, access to ready-to-eat meals and parents' habits), but research (Batada & Wootan, 2007; Hingle & Kunkel, 2012; Lioutas & Tzimitra-Kalogianni, 2014; National Collaborative on Childhood Obesity Research, 2011; Strasburger et al., 2012) indicates that

food advertisements and food marketing are one of the predominant causes of the unhealthy diet of children. In fact, food advertisements and marketing directed toward children promotes energy-dense and nutrient-poor diets and influence their food preferences and food purchase requests.

Children watch many food commercials on television, and it was estimated that more than US\$ 10 billion per year is spent on all types of food and beverage marketing aimed at children and youth (National Collaborative on Childhood Obesity Research, 2011). The broadcast of public service announcements (PSAs) that encourage children to eat healthy food are fewer than common commercials about sugary cereals, sugar sweetened beverages, fast food meals, pastries and other food of poor nutritional quality (Batada & Wootan, 2007; Gantz et al., 2008). PSAs are a type of messages that are important for public education and are designed to raise awareness, change attitudes, and modify detrimental behaviors about many social issues.

Public communication campaigns are one of the instruments available in social marketing. As Kubacki et al. (2015) stated, social marketing can be considered an effective approach to increase physical activity and healthy eating in children.

Atkin and Rice (2013) defined public communication campaigns as a

“purposive attempts to inform, persuade, or motivate behavior changes in a relatively well-defined and large audience, generally for noncommercial benefits to the individuals and/or society at large, within a given time period, by means of organized communication activities involving mass and online/interactive media, and often complemented by interpersonal support”.

In general, PSAs rely on donated media and if PSAs are properly designed and receive sufficient airtime to address their target audience, these can have a significant effect on changing or preventing unhealthy habits and on encouraging the adoption of good practices (Gantz et al., 2008).

Although an extensive body of research (Boyland & Halford, 2013; Buijzen et al. 2008; Castonguay et al., 2013; Hingle & Kunkel, 2012; Kelly et al. 2008; Pettigrew et al. 2013; Strasburger et al. 2012) has focused on the topic of children and food

commercials and the consequent negative effects on children's diet, little is known about the effectiveness of PSAs that promote healthy food to children.

To fill the gap in the literature, this study suggests a model that considers the effects of the children's attitude toward PSAs (measured through the likeability of PSAs) on their behavioral intention to eat fruits and vegetables. In the model developed in this study, the positive emotions PSAs generate and PSA credibility mediate the effects of the children's perceived likeability of PSAs on their behavioral intention to eat fruits and vegetables. Moreover, children's perceived likeability of PSAs has additional direct effects on such behavioral intention. The suggested model was tested through an empirical analysis conducted in Italy with children aged 8 to 11.

This study contributes to both theory and practice. In relation to theory, few studies have examined relations and variables related to PSAs that are useful in influencing children's behavioral intention to adopt good practices. Most studies have focused only on the effects of commercial advertising on children and/or adults. In relation to practical implications, findings are relevant for non-profit organizations, government institutions and advertisers interested in creating effective social messages aimed at children. A well designed PSA can help children to choose healthy lifestyle habits in early childhood.

The remainder of the paper is organized as follows. First, the theoretical background and the research model are presented. Second, the method of the study is described and the results are explained. Finally, the theoretical and practical implications, the limitations of the study, and the opportunities for future research are discussed.

2. THEORETICAL BACKGROUND

The literature about children and commercial advertising has explored a great variety of topics including the influence of children on family purchases after exposure to commercials and the parent-child conflict (Buijzen & Valkenburg, 2003; Ebster et al., 2009; Page et al., 2018; Valkenburg, 2004), content analyses of television advertisements and persuasive marketing techniques to promote products to children (Harris et al., 2015; Hebden et al., 2011; Jenkin et al. 2014; Kim et al., 2016; Paek et

al., 2014; Puggelli & Bertolotti, 2014), children's comprehension of advertising and, in particular, their capacity to understand the persuasive intent of advertising (Chan, 2000; Carter *et al.* 2011; Oates *et al.* 2002; Oates *et al.* 2003; Rozendaal *et al.* 2011), children's ability to recognize advertisements on television and on the Internet (An *et al.*, 2014; Blade *et al.* 2013; Carter *et al.* 2011; Kunkel and Roberts 1991), the phases of consumer behavior during childhood (John, 1999; Valkenburg & Cantor, 2001) and finally, the influence of advertising on children's brand awareness and brand preferences (Boyland & Halford, 2013; Pecheux and Derbaix, 1999; Valkenburg & Buijzen, 2005).

Most of the above-mentioned studies focused on the energy-dense, nutrient-poor food and beverages commercials aimed at children, forgetting the key role that PSAs can have in influencing children's healthy food choices. Therefore, the general literature on PSAs or social marketing interventions targeted at minors is limited (Hota *et al.* 2010, Kubacki *et al.* 2015).

In the research field concerning the measurement of the effectiveness of advertisements, the construct of attitude toward advertising has gained a primary role. Attitude is defined as "a psychological tendency that is expressed by evaluating a particular entity with some degree of favour or disfavour" (Eagly & Chaiken, 2007). MacKenzie and Lutz (1989) applied this definition to the advertising context and they suggested that we can consider attitude toward advertising the consumers' favorable or unfavorable response to a specific advertising stimulus during a particular exposure occasion.

Unfortunately, most studies have mainly measured attitude toward advertising among adults and only a few recent studies have analyzed the children's attitude toward advertising (Chan & McNeal, 2004; Derbaix and Pecheux, 2003; D'alessio *et al.* 2009; Hasmini Ghani and Zain, 2004; Gulla and Purohit, 2013; Nicolini *et al.*, 2017; Priya *et al.*, 2010).

An attitude object (in this case, the advertisement) can elicit three types of evaluative responses: cognitive, affective, and behavioral (Eagly & Chaiken, 2007). The first

concerns associations between an attitude object and the attributes that a person ascribe to it (i.e., perceptions, concepts and beliefs). The affective response includes emotions, feelings and physiological responses to the attitude object. The behavioral response refers to actions and intentions to act toward the attitude object. The simultaneous presence of all three responses is not essential, because an attitude can be expressed through one response or a mix of these (Eagly & Chaiken, 2007).

Since attitude toward advertising is a favorable or unfavorable response to a particular advertisement, it is possible to measure it using the concept of advertising likeability. As Smith et al. underlined (2006), the concepts of advertising likeability and attitude toward advertising are used interchangeably in the literature. Advertising likeability is utilized as a predictor of advertising effectiveness, as a diagnostic tool, and as a gatekeeper for further processing (Leather et al., 1994).

Similarly, advertising likeability can be explained in terms of cognitive, affective and behavioral processing of advertisements (Smith et al., 2006). First, likeable advertisements can influence consumer judgment of the message and memory. In this way, recalling the information and features about the product or service advertised become simpler. Second, a well-liked advertisement can elicit positive emotions in the viewer. Finally, liking an advertisement can be related to liking a brand and, consequently, to purchase intention.

As underlined above, the attitude toward advertising and the advertising likeability consists of cognitive and affective components. Two constructs related to attitude and likeability that are useful to increase advertising effectiveness are the emotional impact generated by an advertisement and the perceived advertisement credibility. The emotional impact belongs to the affective sphere, and credibility to the cognitive sphere.

Mulligan and Scherer (2012) argued that it is difficult to define emotions comprehensively, and currently, a standard definition is lacking. Bagozzi et al. (1999) defined emotions as “mental states of readiness that arise from appraisals of events or one’s own thoughts”. Although the term appraisal can mean evaluation, we have to consider that it covers all types of impressions and perceptions (Mulligan & Scherer,

2012). Further, the appraisal can be conscious or unconscious, depending on the person and the eliciting conditions (Bagozzi et al., 1999).

Many studies have recognized the important role of emotion in influencing consumer behavior (Bagozzi et al. 1999; Holbrook & Shaughnessy, 1984; Erevelles, 1998, Laros & Steenkamp, 2005). Therefore, emotional appeals are often used in advertising and the degree to which individuals experience emotions is measured in advertising contexts (Erevelles, 1998).

In general, children's reactions to commercials is different from that of adults (Derbaix & Bree, 1997). If children find the advertisement's message interesting (or uninteresting), their response is primarily an emotional one (Derbaix & Bree, 1997). Emotional and rational components play a significant role in children's preference for an advertisement but the emotional component appears to be preeminent (Nicolini et al. 2017). Conversely, adults often watch a commercial to search for information and their reactions (i.e., cognitive or emotional) depend on multiple factors such as their age, the product advertised (i.e., product vs service), and their interests. (Ruiz and Sicilia, 2004; Yoo and MacInnis, 2005; McKay-Nesbitt et al., 2011).

As Derbaix and Bree (1997) stated, "What children seem to look for in an advertisement is a state of mind where special elements can be strong enough to generate a feeling of pleasure". Children tend to favor aspects related to enjoyment and entertainment such as humor, jingles, adventure, fantasy, fun and cartoon characters (Boylan et al. 2012; Buijzen and Valkenburg, 2002; Folta et al. 2006; Lawlor, 2009; Hebden et al., 2011; Page & Brewster, 2007; Rose et al., 2012). The same aspects were observed in the PSAs context (Hota et al., 2010; Nicolini et al., 2017). In addition, a study (Rozeen, 2013) on young students highlighted that the emotional response to advertisements is high particularly for not-for-profit brands.

In the related literature, the idea of credibility has been conceptualized and measured in many forms (Appelman & Sundar, 2016; Soh et al., 2009; Verma, 2014): source credibility (i.e., the credibility of endorsers, advertisers and companies), message credibility (i.e., the truthfulness of advertisement claims), media credibility (i.e.,

the credibility of the channel used to convey advertisements) and advertising credibility (i.e., the credibility of advertising in general).

This study focused on the content message credibility perceived by children. Appelman and Sundar (2016) defined message credibility related to a nonspecific context as “an individual’s judgment of the veracity of the content of communication”. The definition of advertisement credibility is similar. It is defined as “the extent to which the consumer perceives claims made about the brand in the ad to be truthful and believable” (MacKenzie & Lutz, 1989).

Obermiller and Spangenberg (1998) approached the concept of advertisement credibility from an opposite direction. They used the construct of skepticism toward advertising, which is defined as “the tendency toward disbelief of advertising claims”. Soh et al. (2009) stated that there are many similarities between the two constructs and in this way, it is possible to consider skepticism toward advertising an additional instrument to measure credibility from another viewpoint.

Chan and McNeal (2004) highlighted the lack of research that investigates how children make judgments about the degree of truthfulness of commercials. The credibility aspect of advertisements is an important factor to measure the influence of advertisements on children (Gulla & Purohit, 2013). In general, children tend to believe advertisements because for them, advertisements represent a source of information (Gulla & Purohit, 2013; Priya et al., 2010; Moore & Lutz, 2000). However, advertisement credibility perceived by children depends on their age (Chan & McNeal, 2002; Priya et al., 2010) and sometimes on the context in which they live (i.e., rural or urban) (Chan, 2014). As children move into adolescence, they cease believing that advertisements are always true and their skepticism toward advertisements increases (Boush et al., 1994; Chan & McNeal 2002; Chan & Mc Neal 2004; Freeman & Shapiro, 2014). Chan (2001) found that the judgment by older children about advertisement credibility depends more on personal experience, while that of younger children, on other’s comments.

If children become more skeptical toward advertisements and aware of the marketing tactics used in commercials, they are more likely to avoid advertisements (Freeman & Shapiro, 2014). Therefore, advertisements for children should appear credible and quite realistic, rather than merely entertain (Priya et al., 2010).

Few studies have focused on the perceived credibility of social advertisements (Thakor & Goneau-Lessard, 2009). Thakor and Goneau-Lessard (2009) developed a scale to measure social advertising skepticism among adolescents and found that adolescents who do not believe social advertisements regard them more negatively. In addition, teenagers influenced by their peer group are more skeptical of social advertisements. Finally, they noted that teenagers' skepticism toward social advertisements is significantly correlated with their decreased perceptions about health-related risky behavior.

Based on the above framework, it is suggested that advertising likeability has direct and indirect effects on children's behavioral intention to eat fruits and vegetables. In the next section, a model is developed that addresses the direct effect of perceived likeability of PSAs among children and the effect mediated by the positive emotions and credibility elicited by PSAs on their behavioral intention to eat fruits and vegetables.

3. MODEL AND HYPOTHESES

3.1 Direct effects

There is extensive evidence that children's positive attitudes toward advertisements (or advertising likeability) have a direct influence on their purchase intention (D'Alessio et al. 2009; Pecheux & Derbaix, 2002; Phelps & Hoy, 1996). Similar to D'Alessio et al. (2009), we considered behavioral intention as "the subjective perception of the persuasive power of TV advertising, the perceived evaluation of the effect on desire for the advertised products and the effect on their request to parents to buy these products", but we adapted this definition to social messages.

Rossiter (1979) stated that commercials create in children a desire for a product that can translate into actual and intended behavior. Children with a positive attitude toward an advertisement like and appreciate it, and they request the products that they

have seen on the advertisement (Hasmini Ghani & Zain, 2004). Hota et al. (2010) confirmed the same relationship exists between attitude and behavior in the context of PSAs. They found that children's attitude toward a PSA that promotes healthy food has a direct influence on their choice of snack foods. Hence, we posit the following:

H1. Children's perceived likeability of PSAs (or positive attitude toward PSAs) has a positive effect on their behavioral intention to eat fruits and vegetables.

3.2 Indirect effects

As stated earlier, attitude toward advertisements and advertising likeability can be explained in terms of three types of responses, one of which is the affective response (Eagly & Chaiken, 2007, Smith et al. 2006). Therefore, a well-liked advertisement can elicit positive emotions in the viewer (Smith et al. 2006). Children's response toward an advertisement is mainly related to the affective dimension and the characteristics and benefits of the product advertised are often considered of secondary importance by them (Derbaix & Bree, 1997). When they find the message interesting, they primarily have an emotional response (Derbaix & Bree, 1997). Lioutas and Tzimitrakalogianni (2014) explained that food advertising affects children by generating expectations, feelings, emotions, and positive moods. Therefore, we suggest the following hypotheses:

H2. Children's perceived likeability of PSAs (or positive attitude toward PSAs) has a positive effect on their emotional response to PSAs.

Bagozzi et al. (1999) stated that "A person's emotional state can influence various aspects of information processing including encoding and retrieval of information, different strategies used to process information, evaluations and judgments, and creative thinking". In particular, individuals in a positive affective state evaluate stimuli more positively because they base their evaluation on their affective reactions to the object (Bagozzi et al. 1999). Previous studies (Chan, 2001; Chan & McNeal, 2004) have suggested that children who enjoy commercials and have positive emotions toward commercials perceive these to be mostly true (and vice versa). Drawing on this reasoning, the following hypothesis is proposed:

H3. Children's positive emotional response to PSAs has a positive effect on the perceived credibility of PSAs.

There is extensive evidence (Goldsmith et al. 2000; Lafferty et al. 2002; Ohanian, 1991) that the credibility of companies and endorsers influence adults' purchase intention. Notably, no studies investigate how children judge the credibility of commercials and how advertisement credibility influences their behavior (Chan and McNeal, 2004). Children tend to believe advertisements because to them, advertisements represent a source of information (Gulla & Purohit, 2013; Priya et al., 2010; Moore & Lutz, 2000). Consequently, it is possible that the credibility of an advertisement perceived by children can have an impact on their behavior. Priya et al. (2010) confirmed that the credibility aspect of the advertisement has an impact, although, not significantly, on buying behavior across different age groups of children. Following this reasoning, we suggest the following hypothesis:

H4. The children's perceived credibility of PSAs has a positive effect on their behavioral intention to eat fruits and vegetables.

4. METHOD

This study has a cross-sectional design and was conducted with children aged between 8 and 11 years. The questionnaire was adapted to social advertisements context from Derbaix and Pecheux (2003), Baumgartner and Laghi (2012) and, Lioutas and Tzimitra-Kalogianni (2014).

A four-point Likert scales (not at all = 1, a little = 2, a lot = 3, very much = 4) was used to avoid the tendency of children to mark the neutral mid-point (Hota et al., 2010)

First, items were tested with 11 children to ensure that the questions were understandable, and to check whether there was any ambiguity in the sentences. Second, consent was obtained from the parents of 143 children (F = 72; M = 71). Finally, the questionnaire was administered to these children during school hours at a primary school in Verona, Italy.

The children filled out the questionnaire after viewing a PSA. Two PSAs were used in the experiment and children were randomly assigned to one of them. The advertisements showed to the children were “Frutta nelle scuole” created by the Italian Ministry of Agricultural, Food and Forestry Policies and “The Greatest Action Movie Ever” created by the American Advertising Council. “The Greatest Action Movie Ever” advertisement was professionally dubbed into Italian. A total number of 66 children watched “Frutta nelle scuole” advertisement and 67 children watched “The Greatest Action Movie Ever” advertisement.

The Italian PSA is a fantasy stop-motion animation (Figure 1). The main characters are personified fruits and vegetables. This advertisement encourages children to eat healthy food by comparing and presenting fruits and vegetables as an interesting subject that they may wish to learn more about at school. It states that fruits and vegetables will also be appreciated by parents and can be shared with them. The American PSA is filmed as a movie trailer (Figure 2). The main characters are a group of real children, whose superpowers are created using special effects and a cartoon monster. This advertisement shows children that they can acquire many superpowers by eating fruits and vegetables, so much so that they would even be able to defeat a monster. Data were analyzed through structural equation modeling.



Figure 1 - The Greatest Action Movie Ever



Figure 2 - Frutta nelle scuole

5. RESULTS

Confirmatory factor analysis was conducted to evaluate the measurement model (Table 1). The model reached a good fit (Bagozzi & Yi, 2012; Kaplan, 2009) with $\chi^2 = 60.90$, $df = 48$ ($p > 0.10$); $\chi^2/df = 1.27$; CFI = 0.98; RMSEA = 0.44, $p_{close} > 0.10$ and SRMR = 0.05. All standardized factor loadings were higher than 0.70, except for four loadings. The average variance extracted (AVE) for each latent construct was greater than 0.50, Cronbach's alpha coefficient was equal to or greater than 0.70, and the composite reliability (CR) was beyond 0.60. Thus, both reliability and convergent validity were attained (Fornell & Larcker, 1981). In addition, the AVE for each construct was higher than their maximum and average shared variance. This proved discriminant validity (Fornell & Larcker, 1981).

After assessing the validity of the measurement model, we were able to use the constructs to estimate the structural equation model. The results (Figure 3 and Table 2) showed a good model fit with $\chi^2 = 73.10$, $df = 50$ ($p > 0.10$). The value of χ^2/df was 1.46 and below the threshold of 3 (Kline, 2011). Moreover, CFI was 0.97 and above the threshold of 0.93 (Bagozzi & Yi, 2012). RMSEA was 0.06 ($p_{close} > 0.10$), and SRMR was 0.06, which were below the threshold of 0.07 (Bagozzi and Yi, 2012).

The results showed that children's perceived likeability of PSAs had a positive effect on their behavioral intention to eat fruits and vegetables ($\beta = 0.17$, $p < 0.10$). Therefore, hypotheses 1 was supported. In addition, children's perceived likeability

of PSAs had a positive effect on the emotional response to PSAs ($\beta = 0.71, p < 0.01$), which, in turn, had a positive effect on the perceived credibility of PSAs ($\beta = 0.27, p < 0.10$) that in turn, had a positive effect on children's behavioral intention to eat fruits and vegetables ($\beta = 0.39, p < 0.01$). Thus, the results also supported hypotheses 2, 3, and 4.

Table 1 - The measurement model

Construct	Items	Mean	SD	CR	Factor loading
PSA likeability (AVE: 0.53; CR: 0.77; Cronbach's α : 0.81)	Do you like this advertisement?	3.48	0.76	/	0.76
	Is this advertisement boring? (reverse coded)	3.57	0.74	7.59	0.68
	Is this advertisement beautiful?	3.46	0.70	8.77	0.84
Positive emotions (AVE: 0.53; CR: 0.69; Cronbach's α : 0.70)	Does this advertisement make you happy?	3.03	0.91	/	0.72
	Does this advertisement make you feel good?	3.18	0.88	6.85	0.74
PSA credibility (AVE: 0.59; CR: 0.81; Cronbach's α : 0.79)	Do you believe what this advertisement has shown you?	3.01	1.15	/	0.81
	Does this advertisement tell the truth?	3.30	1.05	8.94	0.91
	Does this advertisement lie? (reverse coded)	3.62	0.82	6.70	0.56
Behavioral intentions (AVE: 0.57; CR: 0.84; Cronbach's α : 0.84)	Do you want to eat more fruits and vegetables?	3.41	0.91	/	0.85
	Will you ask your parents to give you fruits and vegetables to eat?	3.42	0.93	11.15	0.87
	Will you tell your friends that it is necessary to eat more fruits and vegetable?	3.43	0.92	8.37	0.67
	Will you refuse to eat fruits and vegetables? (reverse coded)	3.62	0.83	7.58	0.61

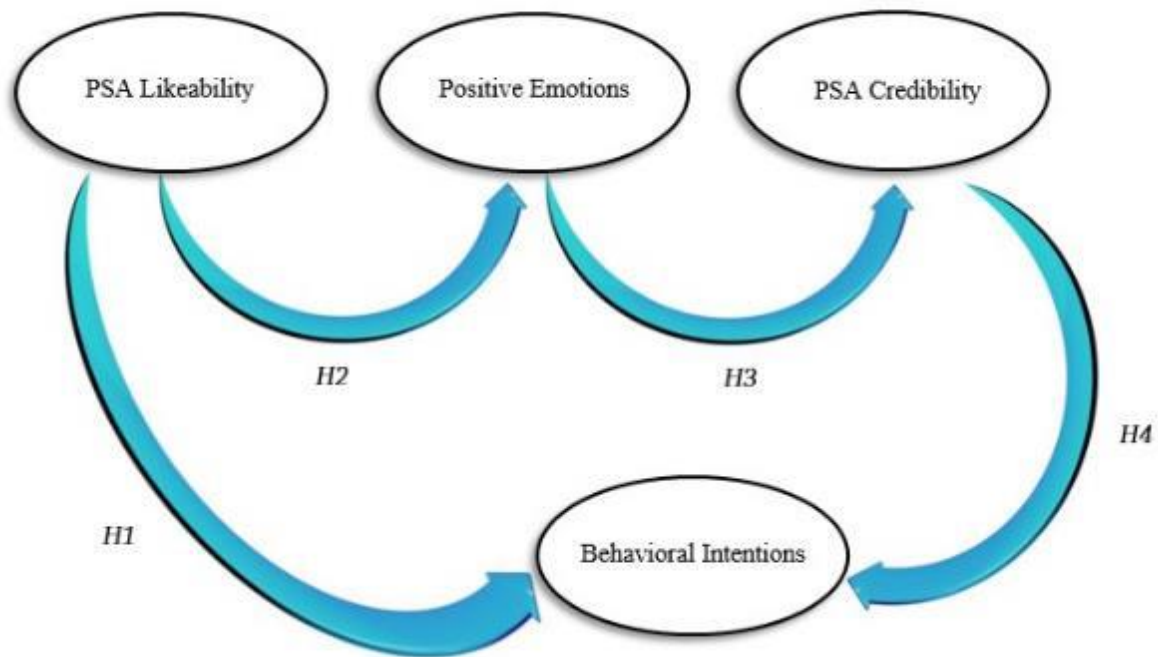


Figure 3 - The structural model

Table 2 - The structural model

Hypotheses	Unstandard coefficients	SE	Standard coefficients
H1: PSA Likeability → Behavioral Intentions	0.234*	0.126	0.173
H2: PSA Likeability → Positive Emotions	0.854***	0.142	0.714
H3: Positive Emotions → PSA Credibility	0.368*	0.143	0.273
H4: PSA Credibility → Behavioral Intentions	0.332***	0.080	0.395
<i>Model fit</i>			
χ^2	73.10, df = 50, $p > 0.10$		
RMSEA	0.057, $p_{close} > 0.10$		
CFI	0.97		
SRMR	0.06		

* $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$

6. DISCUSSION

6.1 Theoretical implications

The perceived likeability of PSAs or attitude toward PSAs is an important factor to consider when the effectiveness of social advertisements on children is analyzed. The results showed that PSA likeability has a direct and a mediated effect on children's behavioral intention to eat fruits and vegetables. As regards the direct effect, extensive evidence indicates that children's positive attitudes toward commercial advertisements (or advertising likeability) have a direct influence on their purchase intention (D'Alessio et al. 2009; Pecheux & Derbaix, 2002; Phelps & Hoy, 1996). This study suggests the same relationship in the context of social advertisements.

Smith et al. (2006) noted that some researchers think that advertisement likeability can be explained only as an affective response, but our findings confirm the idea that the combination of affective and cognitive elements has a real effect on behavioral intentions. Thus, it is interesting to note that positive emotions generated by PSAs permitted children to think about and believe in the content of social advertisements, and this in turn, influenced their intention to eat more fruits and vegetables.

According to Derbaix and Bree (1997), children's first response to advertisements is an emotional response. Therefore, whether children like a PSA, they express positive emotions. In addition, these authors argued that children's elaboration of the message seems low because children evaluate the executional elements of advertisements, rather than the elements related to the argument. By contrast, in this study we found that the processing of the message and its evaluation (measured through the perceived credibility of PSAs) had an important effect on the children's decision to try to eat healthy food. Consequently, it may be useful to conduct further research on children's affective and cognitive responses simultaneously and the manner in which these two factors influence each other.

As previously mentioned, many studies (Boyland et al. 2012; Buijzen and Valkenburg, 2002; Folta et al. 2006; Lawlor, 2009; Hebden et al., 2011; Page & Brewster, 2007; Rose et al., 2012) have focused on children's affective response to commercials, identifying which aspects related to enjoyment and entertainment children prefer.

Conversely, few studies measured children's judgments about the credibility of advertisements (Chan and McNeal, 2004), and in particular, the concept of perceived message credibility is not applied to PSAs aimed at children.

Given the lack of research about the effectiveness of PSAs targeting children, our findings can be a starting point for further studies examining which factors influence children's healthy choice.

6.2 Practical implications

Few studies on PSAs try to understand the process that permits to influence children positively. Moreover, we cannot know the ways in which PSAs can increase good practices among children if we do not examine every factor and the relationship between factors in the process. Understanding the connections between PSA likeability, positive emotions, PSA credibility and behavioral intentions can facilitate the development of further social advertisements aimed at children covering other social themes. Therefore, the findings of this study are relevant for non-profit organizations, government institutions and advertisers interested in creating effective social messages aimed at children.

Social advertisements promoting healthy ways of life need to elicit positive emotions in children because in the positive affective state, they evaluate the message more positively. The positive evaluation of the message permits children to believe in the content of PSAs, and in turn, they are willing to change and improve their behavior. For example, in their responses to this study's questionnaire, children not only state they intend to eat more fruits and vegetables, but also affirm that they will suggest to their friends that they should consume more healthy food. Therefore, it can be useful to use elements related to enjoyment and entertainment in PSAs for children to elicit positive emotions.

Despite this finding, it is important to be cautious in the use of entertainment elements such as fantasy because another aspect to consider is the cognitive response of children. The results showed that children's judgments about the credibility of advertisements have a direct effect on their behavioral intention. Only when they believe in the message, they can be persuaded. This means that emotional elements should

be integrated with credible elements and rational explanations of the message. The two PSAs watched by children in the study used credible elements such as other children eating fruits and vegetables and arguments related to school. All this represents items familiar to children and as Peracchio and Luna (1998) stated, children often use analogical reasoning by drawing a parallel between what they see in advertisements and their real life.

The emotional response, the PSA credibility perceived by children, and influence of both these factors on behavior intentions can change according to age. It is possible that in young children, the perceived credibility of PSAs has a more minor role in influencing their behavioral intentions than in children approaching adolescence. Thus, it is necessary to plan advertising campaigns with a targeted approach.

6.3 Limitations and future research

Several limitations should be considered when interpreting and generalizing these results. First, data were collected from a sample of Italian children aged 8 to 11 years. Future studies should evaluate whether these findings apply to children of other countries and to different age groups. Second, the children watched two PSAs that elicited positive emotions, but we do not know if negative emotions can have the same positive effect on the perceived PSA credibility. Therefore, future research should try to use moderate fear appeals. Finally, this study only analyzed PSAs that promoted eating fruits and vegetables. Future studies should examine different types of PSAs targeting children.

REFERENCES

- An, S., Jin, H. S., & Park, E. H. (2014). Children's advertising literacy for advergames: perception of the game as advertising. *Journal of Advertising*, 43(1), 63-72.
- Appelman, A., & Sundar, S. S. (2016). Measuring message credibility: Construction and validation of an exclusive scale. *Journalism & Mass Communication Quarterly*, 93(1), 59-79.
- Atkin, C. K. & Rice, R. E. (2013). Advances in public communication campaigns in E. Scharer (Eds.), *The International Encyclopedia of Media Studies* (pp. 526-551). London, UK: Wiley-Blackwell.
- Bagozzi, R. P., Gopinath, M., & Nyer, P. U. (1999). The role of emotions in marketing. *Journal of the Academy of Marketing Science*, 27(2), 184.
- Bagozzi, R. P., & Yi, Y. (2012). Specification, evaluation, and interpretation of structural equation models. *Journal of the Academy of Marketing Science*, 40(1), 8-34.
- Batada, A., & Wootan, M. G. (2007). Nickelodeon markets nutrition-poor foods to children. *American journal of preventive medicine*, 33(1), 48-50.
- Baumgartner, E., & Laghi, F. (2012). Affective responses to movie posters: Differences between adolescents and young adults. *International Journal of Psychology*, 47(2), 154-160.
- Blades, M., Oates, C., & Li, S. (2013). Children's recognition of advertisements on television and on Web pages. *Appetite*, 62, 190-193.
- Boush, D. M., Friestad, M., & Rose, G. M. (1994). Adolescent skepticism toward TV advertising and knowledge of advertiser tactics. *Journal of Consumer Research*, 21(1), 165-175.
- Boyland, E. J., Harrold, J. A., Kirkham, T. C., & Halford, J. C. (2012). Persuasive techniques used in television advertisements to market foods to UK children. *Appetite*, 58(2), 658-664.
- Boyland, E. J., & Halford, J. C. (2013). Television advertising and branding. Effects on eating behaviour and food preferences in children. *Appetite*, 62, 236-241.
- Buijzen, M. & Valkenburg, P. M. (2002). Appeals in television advertising: a content analysis of commercials aimed at children and teenagers. *Communications*, 27, 349-364.
- Buijzen, M., & Valkenburg, P. M. (2003). The effects of television advertising on materialism, parent-child conflict, and unhappiness: A review of research. *Journal of Applied Developmental Psychology*, 24(4), 437-456.
- Buijzen, M., Schuurman, J., & Bomhof, E. (2008). Associations between children's television advertising exposure and their food consumption patterns: A household diary-survey study. *Appetite*, 50(2), 231-239.
- Carter, O. B. J., Patterson, L. J., Donovan, R. J., Ewing, M.T., & Roberts, C.M. (2011). Children's understanding of the selling versus persuasive intent of junk food advertising: implications for regulation. *Social Science & Medicine*, 72(6), 962-968.

- Castonguay, J., McKinley, C., & Kunkel, D. (2013). Health-related messages in food advertisements targeting children. *Health Education, 113*(5), 420-432.
- Center for Disease Control and Prevention. (2017). Childhood Obesity Facts. Retrieved from <https://www.cdc.gov/healthyschools/obesity/facts.htm>
- Chan, K. (2000). Hong Kong children's understanding of television advertising. *Journal of Marketing Communications, 6*(1), 37-52.
- Chan, K. (2001). Children's perceived truthfulness of television advertising and parental influence: a Hong Kong study. *Advances in Consumer Research, 28*, 207-212.
- Chan, K. & McNeal, J. (2002). An exploratory study of children's perceptions of television advertising in urban China. *International Journal of Advertising and Marketing to Children, 3*(3), 69-79.
- Chan, K., & McNeal, J. U. (2004). Chinese children's attitudes towards television advertising: truthfulness and liking. *International Journal of Advertising, 23*(3), 337-359.
- Chan, K. (2014). Advertising to children in China. In M. Blades et al. (Eds), *Advertising to Children* (pp. 93-114). London, UK: Palgrave Macmillan.
- D'Alessio, M., Laghi, F., & Baiocco, R. (2009). Attitudes toward TV advertising: A measure for children. *Journal of Applied Developmental Psychology, 30*(4), 409-418.
- Derbaix, C., & Bree, J. (1997). The impact of children's affective reactions elicited by commercials on attitudes toward the advertisement and the brand. *International Journal of Research in Marketing, 14*(3), 207-229.
- Derbaix, C., & Pecheux, C. (2003). A new scale to assess children's attitude toward TV advertising. *Journal of Advertising Research, 43*(4), 390-399.
- Eagly, A. H., & Chaiken, S. (2007). The advantages of an inclusive definition of attitude. *Social Cognition, 25*(5), 582-602.
- Ebster, C., Wagner, U., & Neumueller, D. (2009). Children's influences on in-store purchases. *Journal of Retailing and Consumer Services, 16*(2), 145-154.
- Erevelles, S. (1998). The role of affect in marketing. *Journal of Business Research, 42*(3), 199-215.
- EU Action Plan on Childhood Obesity 2014-2020. (2014). Report. Retrieved from https://ec.europa.eu/health/sites/health/files/nutrition_physical_activity/docs/childhoodobesity_actionplan_2014_2020_en.pdf
- Folta, S. C., Goldberg, J. P., Economos, C., Bell, R., & Meltzer, R. (2006). Food advertising targeted at school-aged children: a content analysis. *Journal of Nutrition Education and Behavior, 38*(4), 244-248.

- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39-50.
- Freeman, D., & Shapiro, S. (2014). Tweens' knowledge of marketing tactics. *Journal of Advertising Research*, 54(1), 44-55.
- Gantz, W., Schwartz, N., Angelini, J.R. & Rideout, V. (2008). Shouting to be heard: public service advertising in a changing television world. Retrieved from: <https://kaiserfamilyfoundation.files.wordpress.com/2013/01/7715.pdf>
- Goldsmith, R. E., Lafferty, B. A., & Newell, S. J. (2000). The impact of corporate credibility and celebrity credibility on consumer reaction to advertisements and brands. *Journal of Advertising*, 29(3), 43-54.
- Gulla, A., & Purohit, H. (2013). Children's Attitude towards Television Advertisements and Influence on the Buying Behavior of Parents. *International Journal of Marketing, Financial Services*, 2(6), 103-117.
- Harris, J. L., Lo Dolce, M., Dembek, C., & Schwartz, M. B. (2015). Sweet promises: Candy advertising to children and implications for industry self-regulation. *Appetite*, 95, 585-592.
- Hasmini A. Ghani, N., & Zain, O. M. (2004). Malaysian children's attitudes towards television advertising. *Young Consumers*, 5(3), 41-51.
- Hebden, L., King, L., & Kelly, B. (2011). Art of persuasion: an analysis of techniques used to market foods to children. *Journal of Paediatrics and Child Health*, 47(11), 776-782.
- Hingle, M., & Kunkel, D. (2012). Childhood obesity and the media. *Pediatric Clinics of North America*, 59(3), 677-692.
- Holbrook, M. B., Shaughnessy, J. O'. (1984). The role of emotion in advertising. *Psychology and Marketing*, 1(2), 45-64.
- Hota, M., Càceres, R. C. & Cousin, A. (2010). Can Public-Service Advertising change children's nutrition habits?. *Journal of Advertising Research*, 50, 460-477.
- Jenkin, G., Madhvani, N., Signal, L., & Bowers, S. (2014). A systematic review of persuasive marketing techniques to promote food to children on television. *Obesity Reviews*, 15(4), 281-293.
- John, D. R. (1999). Consumer socialization of children: A retrospective look at twenty-five years of research. *Journal of Consumer Research*, 26(3), 183-213.
- Kaplan, D. (2009). *Structural equation modeling: Foundations and extensions*. Thousand Oaks, CA: Sage Publications.
- Kelly, B., Hattersley, L., King, L., & Flood, V. (2008). Persuasive food marketing to children: use of cartoons and competitions in Australian commercial television advertisements. *Health Promotion International*, 23(4), 337-344.

- Kim, H., Lee, D., Hong, Y., Ahn, J., & Lee, K. Y. (2016). A content analysis of television food advertising to children: Comparing low and general-nutrition food. *International Journal of Consumer Studies*, 40(2), 201-210.
- Kline, R. B. (2011). *Principles and practice of structural equation modeling* (3rd ed.). New York, NY: Guilford.
- Kubacki, K., Rundle-Thiele, S., Lahtinen, V., & Parkinson, J. (2015). A systematic review assessing the extent of social marketing principle use in interventions targeting children (2000-2014). *Young Consumers*, 16(2), 141-158.
- Kunkel, D., & Roberts, D. (1991). Young minds and marketplace values: Issues in children's television advertising. *Journal of Social Issues*, 47(1), 57-72.
- Lafferty, B. A., Goldsmith, R. E., & Newell, S. J. (2002). The dual credibility model: The influence of corporate and endorser credibility on attitudes and purchase intentions. *Journal of Marketing Theory and Practice*, 10(3), 1-11.
- Laros, F. J., & Steenkamp, J. B. E. (2005). Emotions in consumer behavior: a hierarchical approach. *Journal of Business Research*, 58(10), 1437-1445.
- Lawlor, M. (2009). Advertising connoisseurs: children's active engagement with and enjoyment of television advertising. *Irish Marketing Review*, 20(1), 23-24.
- Leather, P., McKechnie, S., & Amirkhanian, M. (1994). The importance of likeability as a measure of television advertising effectiveness. *International Journal of Advertising*, 13(3), 265-280.
- Lioutas, E. D., & Tzimitra-Kalogianni, I. (2014). 'I saw Santa drinking soda!' Advertising and children's food preferences. *Child: Care, Health and Development*, 41(3), 424-433.
- Lobstein, T., Baur, L., & Uauy, R. (2004). Obesity in children and young people: a crisis in public health. *Obesity Reviews*, 5(Suppl. 1), 4-85.
- MacKenzie, S. B., & Lutz, R. J. (1989). An empirical examination of the structural antecedents of attitude toward the ad in an advertising pretesting context. *The Journal of Marketing*, 53(2), 48-65.
- McKay-Nesbitt, J., Manchanda, R. V., Smith, M. C. & Huhmann, B. A. (2011). Effects of age, need for cognition, and affective intensity on advertising effectiveness. *Journal of Business Research*, 64, 12-17.
- Moore, E. S., & Lutz, R. J. (2000). Children, advertising, and product experiences: A multimethod inquiry. *Journal of Consumer Research*, 27(1), 31-48.
- Mulligan, K., & Scherer, K. R. (2012). Toward a working definition of emotion. *Emotion Review*, 4(4), 345-357.

- National Collaborative on Childhood Obesity Research. (2011). Report. Retrieved from: http://www.nccor.org/wp-content/uploads/2016/09/NCCOR_2011AnnualReport.pdf
- Nicolini, V., Cassia, F., & Bellotto, M. (2017). Children perceptions of emotional and rational appeals in social advertisements. *Young Consumers, 18*(3), 261-277.
- Oates, C., Blades, M. & Gunter, B. (2002). Children and television advertising: when do they understand persuasive intent?. *Journal of Consumer Behaviour, 1*(3), 238–245.
- Oates, C., Blades, M., Gunter, B. & Don, J. (2003). Children’s understanding of television advertising: a qualitative approach. *Journal of Marketing Communications, 9*, 59–71.
- Obermiller, C., & Spangenberg, E. R. (1998). Development of a scale to measure consumer skepticism toward advertising. *Journal of Consumer Psychology, 7*(2), 159-186.
- Ogden, C.L., Carroll, M. D., Fryar, C.D., & Flegal, K. M. (2015). Prevalence of obesity among adults and youth: United States, 2011–2014. Retrieved from: <https://www.cdc.gov/nchs/data/databriefs/db219.pdf>
- Ohanian, R. (1991). The impact of celebrity spokespersons' perceived image on consumers' intention to purchase. *Journal of Advertising Research, 31*(1), 46-54.
- Paek, H. J., Taylor Quilliam, E., Kim, S., J. Weatherspoon, L., J. Rifon, N., & Lee, M. (2014). Characteristics of food advergames that reach children and the nutrient quality of the foods they advertise. *Internet Research, 24*(1), 63-81.
- Page, R.M. and Brewster, A. (2007). Emotional and rational product appeals in televised food advertisements for children: analysis of commercials shown on US broadcast networks. *Journal of Child Health Care, 11*(4), 323–340.
- Page, B., Sharp, A., Lockshin, L., & Sorensen, H. (2018). Parents and children in supermarkets: Incidence and influence. *Journal of Retailing and Consumer Services, 40*, 31-39.
- Pecheux, C., & Derbaix, C. (1999). Children and attitude toward the brand: A new measurement scale. *Journal of Advertising Research, 39*(4), 19-19.
- Pecheux, C., & Derbaix, C. (2002). Children’s reactions to advertising communication: multiple methods, moderating variables and construct validity issues. *Advances in Consumer Research, 29*, 531-538.
- Peracchio, L. A., & Luna, D. (1998). The development of an advertising campaign to discourage smoking initiation among children and youth. *Journal of Advertising, 27*(3), 49-56.
- Pettigrew, S., Tarabashkina, L., Roberts, M., Quester, P., Chapman, K., & Miller, C. (2013). The effects of television and Internet food advertising on parents and children. *Public Health Nutrition, 16*(12), 2205-2212.
- Phelps, J. E., & Hoy, M. G. (1996). The Aad-Ab-PI relationship in children: The impact of brand familiarity and measurement timing. *Psychology & Marketing, 13*(1), 77-105.

- Priya, P., Kanti Baisya, R., & Sharma, S. (2010). Television advertisements and children's buying behaviour. *Marketing Intelligence & Planning*, 28(2), 151-169.
- Puggelli, F. R., & Bertolotti, M. (2014). Healthy and unhealthy food in Italian television ads for adults and children. *Young Consumers*, 15(1), 58-67.
- Roozen, I. (2013). The impact of emotional appeal and the media context on the effectiveness of commercials for not-for-profit and for-profit brands. *Journal of Marketing Communications*, 19(3), 198-214.
- Rose, G. M., Merchant, A., & Bakir, A. (2012). Fantasy in food advertising targeted at children. *Journal of Advertising*, 41(3), 75-90.
- Rossiter, J. R. (1979). Does television advertising affect children?. *Journal of Advertising Research*, 19, 39-45.
- Rozendaal, E., Buijzen, M. & Valkenburg, P. (2011). Children's understanding of advertisers' persuasive tactics. *International Journal of Advertising*, 30(2), 329-348.
- Ruiz, S. & Sicilia, M. (2004). The impact of cognitive and/or affective processing styles on consumer response to advertising appeals. *Journal of Business Research*, 57, 657-664.
- Smit, E. G., Van Meurs, L., & Neijens, P. C. (2006). Effects of advertising likeability: A 10-year perspective. *Journal of Advertising Research*, 46(1), 73-83.
- Soh, H., Reid, L. N., & King, K. W. (2009). Measuring trust in advertising. *Journal of Advertising*, 38(2), 83-104.
- Strasburger, V. C., Jordan, A. B., & Donnerstein, E. (2012). Children, Adolescents, and the Media: Health Effects. *Pediatric Clinics of North America*, 59(3), 533-587.
- Thakor, M. V., & Goneau-Lessard, K. (2009). Development of a scale to measure skepticism of social advertising among adolescents. *Journal of Business Research*, 62(12), 1342-1349.
- Valkenburg, P. M., & Cantor, J. (2001). The development of a child into a consumer. *Journal of Applied Developmental Psychology*, 22(1), 61-72.
- Valkenburg, P. M. (2004). *Children's responses to the screen: A media psychological approach*. London, UK: Routledge.
- Valkenburg, P. M., & Buijzen, M. (2005). Identifying determinants of young children's brand awareness: Television, parents, and peers. *Journal of Applied Developmental Psychology*, 26(4), 456-468.
- Verma, I. (2014). Advertising credibility: a review of literature. *International Interdisciplinary Research Journal*, 2(1), 189-199.
- World Health Organization. (2016). Final report of the Commission on ending childhood obesity. Retrieved from: www.who.int/dietphysicalactivity/childhood/en/

Yoo, C., & MacInnis, D. (2005). The brand attitude formation process of emotional and informational ads. *Journal of Business Research*, 58, 1397-1406.