Reconsidering Advertising Literacy as a Defense Against Advertising Effects

Esther Rozendaal \textsuperscript{a}, Matthew A. Lapierre \textsuperscript{b}, Eva A. van Reijmersdal \textsuperscript{a} & Moniek Buijzen \textsuperscript{a}

\textsuperscript{a} Amsterdam School of Communication Research, University of Amsterdam, Amsterdam, The Netherlands
\textsuperscript{b} Annenberg School for Communication, University of Pennsylvania, Philadelphia, Pennsylvania


To cite this article: Esther Rozendaal, Matthew A. Lapierre, Eva A. van Reijmersdal & Moniek Buijzen (2011): Reconsidering Advertising Literacy as a Defense Against Advertising Effects, Media Psychology, 14:4, 333-354

To link to this article: http://dx.doi.org/10.1080/15213269.2011.620540

Full terms and conditions of use: http://www.tandfonline.com/page/terms-and-conditions

This article may be used for research, teaching, and private study purposes. Any substantial or systematic reproduction, redistribution, reselling, loan, sub-licensing, systematic supply, or distribution in any form to anyone is expressly forbidden.

The publisher does not give any warranty express or implied or make any representation that the contents will be complete or accurate or up to date. The accuracy of any instructions, formulae, and drug doses should be independently verified with primary sources. The publisher shall not be liable for any loss, actions, claims, proceedings, demand, or costs or damages whatsoever or howsoever caused arising directly or indirectly in connection with or arising out of the use of this material.
Reconsidering Advertising Literacy as a Defense Against Advertising Effects

ESTHER ROZENDAAL
Amsterdam School of Communication Research, University of Amsterdam, Amsterdam, The Netherlands

MATTHEW A. LAPIERRE
Annenberg School for Communication, University of Pennsylvania, Philadelphia, Pennsylvania

EVA A. VAN REIJMERSDAL, and MONIEK BUIJZEN
Amsterdam School of Communication Research, University of Amsterdam, Amsterdam, The Netherlands

It is widely assumed that advertising literacy makes children less susceptible to advertising effects. However, empirical research does not provide convincing evidence for this view. In this article, we explain why advertising literacy as it is currently defined (i.e., conceptual knowledge of advertising) is not effective in reducing children’s advertising susceptibility. Specifically, based on recent insights on children’s advertising processing, we argue that due to the affect-based nature of contemporary advertising, children primarily process advertising under conditions of low elaboration and, consequently, are unlikely to use their advertising knowledge as a critical defense. Moreover, literature on cognitive development suggests that children’s ability to use advertising knowledge as a defense will be further limited by their immature executive functioning and emotion regulation abilities. Therefore, we argue that the current conceptualization of advertising literacy needs to be extended with two dimensions: advertising literacy performance, which takes into account the actual use of conceptual advertising knowledge, and attitudinal advertising literacy, which includes low-effort, attitudinal mechanisms that can function as a defense under conditions of low elaboration. We conclude our article with specific directions for future research and implications for the ongoing societal and political debate about children and advertising.
Children’s susceptibility to advertising has long been the subject of academic and societal debate. The primary concern is that children, until they reach a certain age, are less able to view advertising messages in a critical light and, therefore, are more susceptible to its persuasive influence (see Kunkel et al., 2004). The long-held reasoning behind this notion is that children’s conceptual knowledge of advertising (e.g., understanding of advertising’s intent and tactics) has yet to fully mature. This advertising-related knowledge has often been referred to as “advertising literacy” (Livingstone & Helsper, 2006; Young, 1990). Traditionally, most child and advertising theories assume that the main defense against advertising is a cognitive one and, therefore, advertising literacy can function as a filter when processing advertising messages.

In this so-called cognitive defense view, children who possess the necessary knowledge of advertising will use this knowledge in order to critically process the ads they encounter, making them less susceptible to its effects, including advertised product preferences and requests (e.g., Brucks, Armstrong, & Goldberg, 1988; Friestad & Wright, 1994). Based on this view, many Western societies have implemented policies to increase children’s advertising literacy through interventions, such as school-based advertising education programs (Eagle, 2007; Gunter, Oates, & Blades, 2005). However, although the cognitive defense view has been widely adopted in both the academic and societal debate on children and advertising, there is no convincing empirical evidence that advertising literacy actually decreases children’s susceptibility to advertising effects (e.g., Chernin, 2007; Mallinckrodt & Mizerski, 2007; Rozendaal, Buijzen, & Valkenburg, 2009). This lack of evidence highlights the need to reconsider advertising literacy as a defense against advertising.

In this article, we explain why advertising literacy as it is currently conceptualized (i.e., focus on conceptual knowledge of advertising) is not effective in reducing children’s susceptibility to advertising effects. Specifically, based on recent insights on children’s advertising processing, we argue that due to the affect-based nature of contemporary advertising children primarily process advertising under conditions of low elaboration and, consequently, are unlikely to use their knowledge of advertising as a critical defense while being confronted with advertising (see Buijzen, Van Reijmersdal, & Owen, 2010; Harris, Brownell, & Gargh, 2009; Livingstone & Helsper, 2006; Nairn & Fine, 2008). Moreover, insights on psychological development suggest that children’s ability to use their advertising knowledge as a defense will be further limited by their immature cognitive abilities (see Moses & Baldwin, 2005).

Based on these insights, we argue that the current conceptualization of advertising literacy needs to be extended with two important dimensions. First, advertising literacy performance, which takes into account the actual use of conceptual knowledge of advertising while being exposed to it, and second, attitudinal advertising literacy, which includes low-effort, attitudinal mechanisms that can be effective in reducing children’s advertising suscep-
Reconsidering Advertising Literacy as a Defense

335

tibility under conditions of low elaboration. We conclude our article by offering specific directions for future research and discussing the implications for the ongoing societal and political debate about children and advertising. However, before elaborating on this, we first further clarify the current concept of advertising literacy and discuss the state of the empirical evidence for the cognitive defense view.

CURRENT CONCEPTUALIZATION OF CHILDREN’S ADVERTISING LITERACY

In the child and advertising literature, advertising literacy is generally defined as conceptual knowledge of advertising, with several theoretical models providing insights on the specific types of knowledge (for an overview, see Wright, Friestad, & Boush, 2005). Based on these models, seven knowledge components of advertising literacy can be identified: (1) recognition of advertising—differentiating advertising from other media content (e.g., television programs, editorial Web content); (2) recognition of advertising’s source—understanding who pays for advertising messages; (3) perception of intended audience—understanding the concept of audience targeting and segmentation; (4) understanding advertising’s selling intent—understanding that advertising tries to sell products; (5) understanding advertising’s persuasive intent—understanding that advertising attempts to influence consumers’ behavior by changing their mental states, for instance their attitudes and cognitions about a product; (6) understanding advertiser’s persuasive tactics—understanding specific strategies used by advertisers to enhance and idealize the product; (7) understanding of advertising’s bias—being aware of discrepancies between the advertised and the actual product.

An extensive and long established body of research has focused on the development of children’s conceptual advertising knowledge (e.g., Ward & Wackman, 1973; Ward, Wackman, & Wartella, 1977). Most of these studies have concentrated on two of its components: recognition of advertising and understanding of its selling intent (Kunkel, 2010). For example, it has been shown that before about five years of age, children still have difficulty distinguishing commercials from television programs and, so, view advertising primarily as entertainment. However, around the age of eight, the majority of children are able to recognize the difference between television advertising and programs and start to recognize advertising’s source and to perceive its intended audience (Mallalieu, Palan, & Laczniak, 2005; Robertson & Rossiter, 1974). In addition, they demonstrate an increasing understanding of the intent of advertising (for reviews, see John, 1999; Kunkel et al., 2004).

However, research has yielded inconsistent results regarding the age at which children understand the intent of advertising. One explanation lies in the conceptual treatment of selling and persuasive intent (see Kunkel,
Although many different terms have been used when referring to advertising’s intent (e.g., selling intent, persuasive intent, commercial intent), most studies actually investigated children’s understanding of its selling intent (Roberts, 1983; Wright et al., 2005). These studies consistently showed that more than three quarter of all children understood advertising’s selling intent around the age of eight.

In contrast, the few studies that have measured children’s more sophisticated understanding of advertising’s persuasive intent have shown that children develop the understanding of the persuasive intent of advertising noticeably later than the understanding of its selling intent (Carter, Patterson, Donovan, Ewing, & Roberts, 2011; Rozendaal, Buijzen, & Valkenburg, 2010a). For example, Rozendaal et al. (2010a) showed that it was only by the age of 11 that three-quarter of all children could articulate the persuasive intent of advertising after exposure to a commercial message. This is in line with Moses and Baldwin’s (2005) assumption that it is easier for children to understand that advertisers try to change their behavior (i.e., selling intent) than to understand that they try to change their mental states (i.e., persuasive intent). Furthermore, previous research suggests that 13-year-old children show a significant increase in their understanding of advertisers’ persuasive tactics (Rozendaal, Buijzen, & Valkenburg, 2011) and advertising’s bias (Bever, Smith, Bengen, & Johnson, 1975). Thus, the research shows that conceptual advertising knowledge encompasses relatively simple to more abstract competences that accumulate during childhood.

Although these studies have contributed substantially to our understanding of the age at which children possess different types of advertising knowledge, insights on the development of children’s ability to use (i.e., retrieve and apply) this knowledge when exposed to advertising are still lacking. This is remarkable, because the retrieval and application of advertising knowledge plays a crucial part in the cognitive defense view. After all, it is only when children retrieve and apply their advertising-related knowledge when confronted with advertising that it can become a defense. Based on developmental theories, it is generally assumed that children even as old as 12 will still have difficulties retrieving and applying knowledge stored in memory (see John, 1999; Moses & Baldwin, 2005). These reservations about children’s use of their advertising-related knowledge as a critical defense are underlined by the rather ambiguous evidence for the cognitive defense view.

EMPIRICAL EVIDENCE FOR THE COGNITIVE DEFENSE VIEW

Two separate lines of research on the effectiveness of advertising literacy as a defense against advertising exist. The first focuses on the direct relation be-
between children’s advertising knowledge and their susceptibility to advertising effects. The studies that have investigated this relation yielded mixed results (Chernin, 2007; Mallinckrodt & Mizerski, 2007; Robertson & Rossiter, 1974; Ross et al., 1984; Rozendaal et al., 2009). For example, Robertson and Rossiter (1974) found a negative relation between understanding advertising’s intent and advertised product desire, whereas other studies did not yield evidence for an empirical relation (Chernin, 2007; Mallinckrodt & Mizerski, 2007; Ross et al., 1984). In addition, Rozendaal et al. (2009) found that of the three advertising literacy variables they investigated—advertising recognition, understanding selling intent, and understanding persuasive intent—only understanding persuasive intent reduced children’s desire for advertised products. Furthermore, research that uses age as a proxy for children’s level of advertising literacy because the two are highly correlated, does not provide clear evidence for the cognitive defense view either. In their comprehensive literature review, Livingstone and Helsper (2006) showed that the empirical evidence on the relationship between children’s age and their responses to advertising does not support the belief that older children, who are assumed to have higher levels of advertising literacy, are less susceptible to advertising effects. In other words, there is little evidence to suggest that an increase in advertising literacy indeed leads to reduced advertising effects.

The second line of research on the effectiveness of advertising literacy as a defense concentrates on the effectiveness of interventions aimed at increasing advertising-related knowledge in reducing children’s advertising susceptibility (Chernin, 2007; Christenson, 1982; Feshbach, Feshbach, & Cohen, 1982). In general, advertising interventions seek to instill advertising knowledge in children by teaching them about advertisements (e.g., advertising training in the classroom). Although several studies have demonstrated that advertising interventions can successfully stimulate children’s advertising literacy (Brucks et al., 1988; Chernin, 2007; Donohue, Henke, & Meyer, 1983; Feshbach et al., 1982; Hobbs & Frost, 2003; Roberts, Christenson, Gibson, Mooser, & Goldberg, 1980), the evidence for a relation between such interventions and the effect that advertising has on children is less convincing. Of the three studies that have investigated this relation, only Feshbach et al. (1982) found that a training session on advertising’s intent and advertisers’ persuasive tactics decreased children’s desires and preferences for advertised products. However, the other two studies did not find an effect of advertising literacy interventions on children’s susceptibility to advertising (Chernin, 2007; Christenson, 1982).

In conclusion, both types of research have yielded mixed results and, therefore, do not convincingly support the cognitive defense view. This underlines the need for a clearer theoretical understanding of the role of advertising literacy in children’s susceptibility to advertising effects.
What is wrong with the cognitive defense view? We contend that the major shortcoming of this view is that it disregards the important distinction between possessing conceptual knowledge of advertising and using (i.e., retrieving and applying) that knowledge as a defense. Even if we grant that children have the necessary conceptual knowledge about advertising in place, it does not necessarily follow that they will actually enact it as a critical defense against the persuasive appeal of advertising (Brucks et al., 1988; John, 1999; Moses & Baldwin, 2005). That is, the likelihood that children will use their advertising knowledge as a defense largely depends on their motivation and ability to process an advertising message on an elaborate level (cf., Buijzen et al., 2010; Chaiken, Liberman, & Eagly, 1989; Petty & Cacioppo, 1986). In their model of young people’s advertising processing, Buijzen et al. (2010) have argued that a high level of message elaboration is necessary for the retrieval and application of relevant advertising-related knowledge. This implies that for advertising literacy to become a defense, the recipient’s motivation and ability to process the advertising message should be relatively high. However, the affect-based nature of contemporary advertising, combined with children’s immature cognitive skills (which inhibit a stop and think response), makes it very difficult for children to engage in an elaborate persuasion process.

The Nature of Children’s Advertisements

Content analyses and critical reviews of children’s television commercials have revealed that the advertisements children are most likely to see do not employ classic persuasive appeals (i.e., rational or factual messages; see Seiter, 1993; Van Evra, 1998). Instead, rather than marshaling arguments or clearly discussing the benefits associated with owning the product, children’s advertisements employ frenetic editing techniques, emotionally evocative cues, and dynamic formal features to engage children (Buijzen & Valkenburg, 2002; Page & Brewster, 2007, 2009; Wicks, Warren, Fosu, & Wicks, 2009).

With regard to the emotional components of children’s advertisements, there are certain tactics that marketers frequently rely upon. For one, there is the consistent focus on fun and play in advertisements, with scenes filled with happy and excited children (Buijzen & Valkenburg, 2002; Page & Brewster, 2007). Second, there are the magical transformations that take place when children in the commercial use the advertised product, which can often resemble a euphoric state (Page & Brewster, 2009). Third, children’s advertisements frequently employ popular media characters toward which children feel a great deal of affinity and loyalty. In some cases, these characters are well-known celebrities (e.g., SpongeBob Squarepants, Dora the Explorer) or
trade characters that are consistently identified with a given product (e.g., Ronald McDonald for McDonald's fast-food restaurants, Tony the Tiger for Kellogg's Frosted Flakes cereals; Connor, 2006; De Droog, Valkenburg, & Buijzen, 2011; Lapierre, Vaala, & Linebarger, 2011).

In addition to the emotionally saturated cues in these commercials, advertisements targeted to children use an array of editing and production techniques to construct perceptually complex messages (cf., Van Evra, 1998; Warren, Wicks, Wicks, Fosu, & Chung, 2008). For instance, Wicks et al. (2009) content analyzed over 3,500 food advertisements targeted to both children and adults for certain production techniques and found that children's commercials were significantly more likely to use extraneous formal features (e.g., sound effects, product jingles) than adult commercials were.

As such, these advertising formats will distract children from using relevant advertising knowledge as a critical defense (cf., Harris et al., 2009; Livingstone & Helsper, 2006; Nairn & Fine, 2008). Moreover, because of the highly involving nature and powerful emotional appeals of most advertised products, children's desire to conform to the message may be much stronger than their desire to defend against it (Harris et al., 2009). In other words, both the affect-based nature and perceptual complexity in contemporary advertising formats are likely to limit children's motivation and ability to process an advertising message elaborately and, accordingly, to retrieve and apply their conceptual advertising knowledge as a defense.

The same issues raised here also apply to nontraditional advertising formats, such as brand placements in television programs, movies and video games, and advertising in online environments. In fact, due to their embedded and subtle nature, nontraditional advertising messages rely heavily on low levels of message elaboration and, therefore, children are unlikely to retrieve and apply their advertising knowledge as a critical defense (Buijzen et al., 2010; Moore & Rideout, 2007; Nairn & Fine, 2008; Owen, Lewis, Auty, & Buijzen, 2009). Therefore, conceptual advertising knowledge may be even less efficacious with these nontraditional types of advertisements. In fact, several studies have shown that children's knowledge of nontraditional advertising formats develops considerable later than their understanding of television advertising and that such knowledge does not influence their responses to these formats (Mallinckrodt & Mizerski, 2008; Owen et al. 2009; Van Reijmersdal, Rozendaal, & Buijzen, in press).

Children's Cognitive Abilities: The Stop-and-Think Response

In addition to the difficulties that are related to the nature of children's advertisements, children's ability to process an advertising message on an elaborate and critical level will be further limited by their immature cognitive abilities. To actually enact their advertising knowledge as a defense, children will need to have the cognitive control to stop and recognize the
persuasive nature of the message. Additionally, the child will need to think about the persuasive message in some considerable depth. We refer to this process as the stop-and-think response since it requires that children shift their attentional bearings away from the advertisement (i.e., stop) and then selectively enact or think about a cognitive script to help defend against the advertisement (see Lapierre, 2009).

We believe that children’s ability to employ their conceptual advertising knowledge depends upon the development of two cognitive abilities which allow for the stop-and-think response: executive functioning and emotion regulation. The cognitive development literature contends that the development of both executive function and emotion regulation are tied quite closely to the neurological maturation of the prefrontal cortex (PFC)—as this section of the brain plays a primary role in both regulating cognition and aiding with complex cognitive skills—and does not reach adult levels until middle to late adolescence (Welsh, Pennington, & Grossier, 1991; Zelazo & Cunningham, 2007). We contend that the chief reason why conceptual advertising knowledge is not effective as a defense is due to the lag in the growth of these cognitive abilities. Without the development of executive function and emotion regulation abilities, children will not be able to exercise adequate control of cognitions (i.e., the “stop” part of stop and think) which would allow for the critical evaluation of advertisements (i.e., the “think” part of stop and think).

**Executive functioning**

Executive functioning is defined as the “higher order, self-regulatory, cognitive processes that aid in the monitoring and control of thought and action” (Carlson, 2005, p. 595). Executive function is not a singular construct or skill, but a set of skills that aid in carrying out purposeful goal-directed thought (Huizinga, Dolan, & Van der Molen, 2006). As Moses and Baldwin (2005) have noted, the development of executive function should be closely linked to message processing in young children. We extend the thoughts on this subject by explicitly noting how three aspects of executive function can override the implementation of advertising knowledge as a defense: inhibitory control, attentional flexibility, and working memory. After having clarified these three aspects, we will discuss how each of them is related to children’s ability to stop and think about advertisements.

First, inhibitory control involves the ability to withhold or delay a pre-planned response, to interrupt a process that has already started, and to avoid interference. Those children who have not developed inhibitory control struggle with exerting cognitive control over certain actions and thoughts when faced with complex stimuli (Carlson, Moses, & Claxton, 2004). For instance, younger children routinely have difficulty controlling inhibitions while playing the game Simon Says, where the child must copy the actions
of a leader, but only when the leader gives the child permission by saying, “Simon says ...”. Children who cannot control their inhibitions are more likely to perform poorly when playing this game, as they are unable to control their responses to the leader’s false prompts (Carlson, 2005).

Second, attentional flexibility is the ability to fluidly shift attention under cognitively or affectively taxing conditions (Huizinga et al., 2006; Kerr & Zelazo, 2004). An example of how attentional flexibility influences decision making is evident in results from the Children’s Gambling Task (Kerr & Zelazo, 2004). This task requires that children weigh gradual long-term rewards versus substantial short-term rewards. Children are told that they are going to play a game where the object is to win as many candy treats as possible and they are given an initial stake of treats to begin the game. Over the course of many trials, the children are shown two cards taken from separate decks. On each card is an indicator of how many treats they can win (which the child can see) and an indicator of how many treats they will subsequently be penalized (which the child cannot see). After selecting which card they want, the children are shown how many treats they have lost. However, unknown to the children, the decks feature a differential reward structure. In the first deck, the rewards are substantial, but over the long run, choosing from this deck produces a net loss. In the second deck, the rewards are slight but produce a net win of treats over the course of the game. On this task, children with less mature executive functioning are significantly more likely to select immediate rewards, even when faced with greater losses on the long term. This suggests that these children have a more difficult time sorting through complex situations, especially those that feature strong affective components.

The third aspect of executive functioning is the development of working memory capacity. Working memory is that part of memory, which keeps information immediately accessible for the planning and completion of complex tasks and is what allows us to complete ordinary multitasking operations without becoming overwhelmed (Welsh et al., 1991). The ability to keep information immediately present in memory and to use these memories to complete tasks efficiently can be seen with the Tower of London task (Luciana & Nelson, 1998). In this task, participants must move a series of prearranged discs into a separate ordering, in as few moves as possible. A vital aspect related to success on the task requires that participants remember how all of the different moves fit with one another (e.g., they must remember a script of moves in order to minimize superfluous moves; Luciana & Nelson, 1998). Tests of children’s performance on this task show that less mature children cannot keep in mind the requisite moves needed to play this game efficiently as they forget the advanced steps necessary to succeed. Less cognitively mature children are unable to keep increased amounts of information in mind, which means that they are more likely to become cognitively overwhelmed as the information load increases.
When translating these insights to children’s ability to defend against advertising effects, it is plausible that children with immature executive functioning will have a difficult time using advertising knowledge as a defense while processing advertising. Specifically, because children are less able to control inhibitions, they will be more likely to immediately respond to the perceptually salient and appealing features of the message. Then, because these children have a hard time shifting and controlling their attention, they will be unable to shift their attention away from the affect-based message to focus on their advertising knowledge. Finally, due to their immature working memory abilities, younger children will be unable to process the persuasive message and, at the same time, retrieve and apply their advertising knowledge as a critical defense (i.e., construct critical thoughts).

**Emotion regulation**

Emotion regulation is defined as “the behaviors, skills and strategies, whether conscious or unconscious, automatic or effortful, that serve to modulate, inhibit and enhance emotional experiences and expressions” (Calkins & Hill, 2007, p. 160). This can include subduing or amplifying negatively or positively valenced emotions. Examples of emotion regulation at work include maintaining a somber face when something unexpectedly humorous occurs at a solemn occasion and feigning a look of joy when receiving a disappointing gift.

The development of emotion regulation can be understood as a gradual transfer from mostly external regulation at infancy to predominantly internal regulation in young children (Calkins, 1994). At the very beginning of life, children rely exclusively on their parents, or other caregivers, to soothe and regulate arousal (Kopp, 1989). For example, if an infant falls down or has a toy taken away, it is the caregiver's responsibility to act as the calming agent, and not the child itself, because the child is unable to enact internal emotional controls. Yet, as children move through infancy and toddlerhood, they undergo a number of important changes, which aid in moving the primary responsibility for emotional regulation away from caregivers and onto the child (see Gross, 2007).

During the early to middle elementary school years, children begin to deal with an entirely new set of problems, and that is how to manage both positive and negative emotions in a socially appropriate manner. An example of a test of children’s emotion regulation is the Secret Keeping task (Carlson & Wang, 2007). In this task, children are tested on how long they can refrain from revealing some amazing news to researchers (e.g., that a fish can talk) after being asked not to reveal this information. Another example comes from the disappointing gift paradigm, wherein children are told that they are going to receive a wonderful gift. Instead, the children are given a disappointing gift (e.g., a wooden block, a broken toy). After opening the gift, researchers
watch for the child’s reaction and look for a clear indicator that the child does not like the gift (i.e., negative comments, frowning, shoulder shrugging) or that the child is unable to make a socially appropriate gesture showing gratitude for the gift (e.g., smiling, thanking for the gift) as these are seen as indicators of less developed emotion regulation skills.

In both these tests, less mature children are unable to complete the task successfully, while more cognitively mature children are able to perform significantly better. In the disappointing gift task, it was found that the older children were better able to enact an appropriate emotional response to receiving the gift than younger children (Simonds, Kieras, Rueda, & Rothbart, 2007). The older children were consistently able to proactively control their responses and enact an appropriate cognitive script rather than just subduing an emotional impulse. This suggests that the children’s ability to regulate emotional reactions is closely tied to the ability to control cognitions and not let emotional situations overwhelm them, as children who succeed at these tasks are those children who are cognitively able to override their emotional impulses (Carlson & Wang, 2007; Simonds et al., 2007).

With so much of the content in contemporary advertisements centered on emotional cues, one would expect that children’s ability to process these messages depends on their ability to modulate emotional responses to the message. Children with less of an ability to control affect via emotion regulation will be overwhelmed by these emotional cues. Similar to the children who have a difficult time controlling their reaction in the secret keeping task (Carlson & Wang, 2007), children may be overstimulated by the presence of excited and happy children or popular brand characters in the advertisements. Children’s inability to regulate their emotional responses should lead them to continue concentrating on the emotionally pleasing aspect of the advertisement. Yet, as children mature and develop the ability to use effective emotion regulation strategies, they will become less likely to get caught up in the message’s emotional appeal. Instead, they will be capable of controlling the emotional impulses that are evoked by the advertisement and be less likely to connect emotionally with the commercial message.

Implications for the Cognitive Defense View

What does this ultimately mean for the role of advertising literacy in children’s susceptibility to advertising effects? When considering the nature of contemporary advertising in combination with children’s immature cognitive development, the evidence suggests that children who are still maturing lack the motivation and ability to retrieve and apply their advertising-related knowledge as a defense while processing an advertising message (i.e., advertising literacy performance). More specifically, because younger children are overwhelmed by the elements contained within the advertisement and
restricted by their limited cognitive abilities, they are unable to stop and think about what the advertisement is trying to accomplish.

As such, children are less likely to process an advertising message on an elaborate level (which is a prerequisite condition for advertising literacy performance), and more likely to process the message on a less elaborate or peripheral level. This implies that they will rely on simple cues or shortcuts, using low-effort mechanisms to respond to a message (Buijzen et al., 2010). This is consistent with evidence from the adult advertising literature (Janssen, Fennis, & Pruijn, 2010; Shiv & Fedorikhin, 1999) indicating that when an individual's cognitive resources are depleted (e.g., due to high cognitive load), their critical processing capabilities are hindered, resulting in less elaborate processing mechanisms. However, the current theoretical conception of advertising literacy does not account for this notion. Therefore, we propose a new conceptualization of children's advertising literacy.

RECONCEPTUALIZING CHILDREN'S ADVERTISING LITERACY

Based on the insights presented in this article, we argue that the current theoretical conception of advertising literacy needs to be extended. Specifically, besides focusing on advertising-related knowledge (Dimension 1: conceptual advertising literacy), the concept of advertising literacy should also take into account the actual use of advertising knowledge while being exposed to advertising (Dimension 2: advertising literacy performance). The insights presented in this article suggest that even if children have the necessary advertising knowledge in place, it does not necessarily follow that they actually retrieve this knowledge when confronted with advertising and apply it as a critical defense. Therefore, the theoretical distinction between conceptual competence (i.e., having advertising knowledge) and performance (i.e., retrieving and applying advertising knowledge) should be emphasized more strongly.

In addition, the concept of advertising literacy should also include low-effort, attitudinal mechanisms that can be effective in reducing children's advertising susceptibility under conditions of low elaboration (Dimension 3: attitudinal advertising literacy). Assuming that children primarily process advertising on a less elaborate level, they might need attitudinal rather than cognitive defenses. For example, general critical attitudes toward advertising (e.g., skepticism and disliking of advertising) have been shown to automatically generate negative affect when processing a specific advertisement which, in turn, is transferred to the advertisement and advertised brand (Lutz, 1985; McKenzie & Lutz, 1986; Zuwerink & Devine, 1996). This suggests that general critical attitudes might be more successful in altering children's responses to advertising messages. For general critical attitudes
to function as an attitudinal defense, children are less dependent on their executive functioning and emotion regulation skills because they operate via a less cognitively demanding mechanism. Thus, attitudinal defenses can be successful in reducing children’s advertising susceptibility, even when they are not motivated and able to process an advertising message elaborately (Rozendaal, Buijzen, & Valkenburg, 2010b).

By extending the theoretical conception of advertising literacy by these two dimensions, it becomes more in line with the original meaning of the term *literacy*, which encompasses more than just the ability to identify and understand messages. For instance, in the context of media, literacy has been defined as “the ability to access, analyze, evaluate, and create messages across a variety of contexts” (Christ & Potter, 1998, p. 7). Based on this definition, Livingstone and Helsper (2006) defined advertising literacy as the skills of analyzing, evaluating, and creating persuasive messages. This definition not only involves the ability to identify and understand advertising messages, but also the ability to use that understanding to evaluate a message and to hold a critical attitude toward advertising. An overview of the three dimensions, including their specific components and definitions is depicted in Table 1.

**IMPLICATIONS AND CONCLUSION**

The aim of this article was to reconsider children’s advertising literacy as a defense to advertising. Drawing on recent insights on children’s advertising processing and cognitive development, we argued that the nature of contemporary advertising, in combination with children’s immature cognitive abilities keep them from autonomously employing their advertising literacy (currently defined as conceptual advertising knowledge) as a critical defense against advertising. Therefore, we proposed that the concept of advertising literacy should be extended to three dimensions: conceptual advertising literacy, advertising literacy performance, and attitudinal advertising literacy.

We will now present specific directions for future research and discuss the implications for the ongoing societal and political debate about children and advertising.

**Theoretical Implications and Future Research**

The insights presented in this article lead to four implications for future theorizing and research. First, and most importantly, the cognitive defense view should be reconsidered. As has been argued in this article, there are important limitations to the effectiveness of conceptual advertising literacy in functioning as a defense against advertising effects. We have highlighted the developmental reasons to question this view. Specifically, due to immature
TABLE 1 A Three-Dimensional Conceptualization of Children’s Advertising Literacy

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Components</th>
<th>Definitions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conceptual advertising literacy</td>
<td>1. Recognition of advertising</td>
<td>The ability to differentiate advertising from other media content (e.g., television programs, editorial Web content).</td>
</tr>
<tr>
<td></td>
<td>2. Understanding selling intent</td>
<td>The ability to understand that advertising tries to sell products.</td>
</tr>
<tr>
<td></td>
<td>3. Recognition of advertising’s source</td>
<td>The ability to understand who pays for advertising messages.</td>
</tr>
<tr>
<td></td>
<td>4. Perception of intended audience</td>
<td>The ability to understand the concept of audience targeting and segmentation.</td>
</tr>
<tr>
<td></td>
<td>5. Understanding persuasive intent</td>
<td>The ability to understand that advertising attempts to influence consumers’ behavior by changing their mental states, for instance their attitudes and cognitions about a product.</td>
</tr>
<tr>
<td></td>
<td>6. Understanding persuasive tactics</td>
<td>The ability to understand that advertisers use specific tactics to change consumers’ attitudes, cognitions, and behaviors.</td>
</tr>
<tr>
<td></td>
<td>7. Understanding advertising’s bias</td>
<td>The awareness of discrepancies between the advertised and the actual product.</td>
</tr>
<tr>
<td>Advertising literacy performance</td>
<td>8. Retrieval of advertising literacy</td>
<td>The ability to retrieve relevant advertising-related knowledge from memory while processing an advertising message.</td>
</tr>
<tr>
<td></td>
<td>9. Application of advertising literacy</td>
<td>The ability to apply retrieved advertising-related knowledge to an advertising message (i.e., construct defense responses) while processing the message.</td>
</tr>
<tr>
<td>Attitudinal advertising literacy</td>
<td>10. Skepticism toward advertising</td>
<td>The tendency toward disbelief of advertising.</td>
</tr>
<tr>
<td></td>
<td>11. Disliking of advertising</td>
<td>A general negative attitude toward advertising.</td>
</tr>
</tbody>
</table>

Executive functioning and emotion regulation skills combined with the nature of persuasion in child-directed advertising, children have major difficulty in using their knowledge of advertising as a defense against its effects. Thus, even though children possess all the necessary advertising knowledge (i.e., conceptual advertising literacy) they are not yet able to access and apply this knowledge when exposed to advertising (i.e., advertising literacy performance).

However, it has been argued that conceptual advertising literacy can be successful in reducing children’s susceptibility to advertising when they are triggered to utilize this literacy (Brucks et al., 1988; Roedder, 1981). Recent studies, indeed, provide tentative evidence that children’s advertising literacy performance can be stimulated by the presence of an external cue. For instance, Buijzen (2007) found that children’s susceptibility to television commercials was significantly reduced when they were provided with comments during exposure. Specifically, providing facts about the commercial
and the advertised product stimulated children’s advertising understanding and skepticism, which negatively influenced their intention to ask for the advertised product. This finding indicates that fact-based comments during advertising exposure can facilitate children’s stop-and-think response and, with that, their advertising literacy performance. In addition, Rozendaal et al. (2010b) showed that even a simple cue that stimulated children to think about a commercial while watching it effectively reduced their susceptibility to its effects (i.e., attitude toward the advertised brand).

However, these studies have been conducted in nonnaturalistic (laboratory) environments, which have limitations that include the disturbance of the cognitive processing of a television commercial. The laboratory circumstances are likely to encourage cognitive, rational processing of the advertising message (e.g., produce critical thoughts) whereas ordinary television viewing more often produces heuristic or affective processing. As yet, much remains unclear about the effectiveness of cues in activating children’s conceptual advertising literacy in a natural context of advertising exposure. Future research should focus on advertising literacy performance by investigating the conditions under which children will retrieve their conceptual advertising literacy and use it as a defense against advertising.

Second, more attention is needed for the attitudinal dimension of advertising literacy. Existing research has predominantly focused on the role of conceptual advertising literacy (e.g., understanding of advertising’s intent) in children’s susceptibility to advertising effects. However, general critical attitudes toward advertising, such as disliking and skepticism, may potentially play a crucial role in shaping how children respond to persuasive messages (Buijzen, 2007; Rossiter & Robertson, 1974; Rozendaal et al., 2010b). Future research should further examine if and how children’s attitudinal advertising literacy can be successful in altering children’s responses to persuasive messages.

Third, the majority of earlier research on the efficacy of advertising literacy has focused on the direct relation between one or more advertising literacy variables and advertising effects (i.e., advertised product desire and preference). However, the mechanisms underlying this relation have received far less research attention. In our view, it is important not only to focus on the effectiveness of advertising literacy, but also to understand the specific ways in which literacy affects the persuasion process. For example, there is a need to investigate the assumption that conceptual and attitudinal advertising literacy operate via different mechanisms (i.e., high versus low elaboration). In addition, future research should reveal if and how advertising literacy and interventions aimed to stimulate this literacy can change the persuasion process in children. These studies could draw on the more developed adult persuasion and information processing literatures. Incorporating findings and theories from the adult literature (while also keeping in mind the tremendous developmental differences between children and adults) into the
child literature would represent an enormous step forward for the field and would, simultaneously, offer compelling tests of how these theories work in developmental contexts. As it stands now, there have been virtually no tests of these theories with children (cf., Buijzen et al., 2010; Livingstone & Helsper, 2006).

Finally, more insight is needed into the relation between conceptual and attitudinal advertising literacy. It is generally assumed that conceptual advertising literacy makes children more skeptical and negative toward advertising. Although prior research has found conceptual knowledge of advertising (i.e., understanding advertising’s intent) and skepticism to be correlated (Robertson & Rossiter, 1974), much remains unclear about the direction and moderating conditions of this relation. For example, children may understand the concept of advertising without also questioning its credibility. However, it is also possible for children to be skeptical without having a fully developed conceptual advertising literacy (Chernin, 2007; Ward et al., 1977). Future research should clarify this issue.

Practical Implications

This article also has important implications for the ongoing societal and political debate about children and advertising. As noted earlier, in many Western societies public and political attention is increasingly drawn toward methods of reducing children’s susceptibility to advertising, including advertising education programs aimed at increasing children’s knowledge of advertising (i.e., conceptual advertising literacy). Although earlier studies have found that such interventions can successfully stimulate children’s conceptual advertising literacy (Brucks et al., 1988; Donohue, Henke, & Meyer, 1983; Feshbach et al., 1982; Hobbs & Frost, 2003; Roberts et al., 1980), these efforts do not necessarily enable them to defend themselves against advertising. This underlines the importance for policymakers to develop educational interventions based on academic insights into children’s processing of advertising, and, as argued by Wright et al. (2005), the need to examine experimentally the effectiveness of such interventions.

Reformulating the Focus of Advertising Interventions

We propose that the focus of advertising interventions should be reformulated in two ways. First, interventions should not only focus on the conceptual dimension of advertising literacy, but also its performance dimension. Specifically, more attention is needed for thought-triggering interventions during advertising exposure, as such interventions can be effective in reducing children’s advertising susceptibility (Rozendaal et al., 2010b). For instance, parents and others involved in the daily care of children could provide them with comments encouraging them to think about what they
see and hear while watching television commercials. However, an increasing amount of children now have their own television set, so that they can watch in the privacy of their own room, away from parental supervision (Rideout, Lauricella, & Wartella, 2011). Despite this, several studies show that when children are watching television in a family context, many parents provide them with comments about what they see on television (Boush, 2001; Buijzen & Valkenburg, 2005). Second, more attention is needed for the attitudinal dimension of advertising literacy, which has been shown to be effective in influencing the persuasion process (Buijzen, 2007; Rozendaal et al., 2010b).

In addition to explaining the concept of advertising, interventions should also focus on installing less favorable and skeptical attitudes toward advertising. Such interventions should make a distinction between different persuasive messages (e.g., public service announcements vs. toy commercials). Children should be taught that not all persuasive messages are deceptive, but that their credibility depends largely on the source and the type of product advertised. Nevertheless, all persuasive messages should be assessed critically.

**Reconsidering regulatory policies**

Advertising literacy interventions are not enough to help children defend against advertising. There is also a need for clear policies that restrict and regulate advertising practices that overwhelm children’s cognitive and affective resources. We suggest that insights on children’s advertising literacy performance should gain a more prominent role in policy decision making. As was shown in this article, children under the age of 12 are unlikely to spontaneously retrieve and apply their advertising knowledge while being exposed to an advertising message, unless they are triggered to do so.

Policymakers could help children defend themselves against advertising by implementing regulatory guidelines and rules that require the insertion of cues that stimulate children’s ability and motivation to use their advertising knowledge as a critical defense against advertising. For instance, regulators could require television networks to incorporate a message in their program-commercial separator including facts about advertising (e.g., explain its intent, tactics, and bias) or other information that functions as a cue to stimulates children’s critical thinking and use of advertising knowledge. In addition, regulators could implement a rule that requires advertisers and television networks to include an advertising alert (i.e., warning) that pops up during a commercial message. Further research should reveal what kind of cues can be effective in triggering children’s use of advertising knowledge in a natural context of advertising exposure.

For younger children, there are three specific areas where policymakers and regulators may want to investigate in the future. The first is whether the use of popular media characters should be reduced or restricted in commercials, because of the potential for these characters to overwhelm
children’s emotional judgment thus distracting them from using relevant advertising knowledge as a critical defense. The second area of inquiry is the use of frenetic formal features (e.g., rapid cuts, loud music) in children’s advertisements as these editing and production techniques may tax children’s executive function. Rather than the standard rapid-fire type advertisements that populate children’s commercial breaks, policymakers may want to push for more restrained commercial appeals. Last, there is the potential that longer commercial breaks require too much cognitive work for young audiences, particularly when these breaks are filled with the types of messages noted previously. As such, it may not only be the format of the specific messages, but also the length of the commercial break that will impair their use of advertising literacy as a defense against advertising effects.

REFERENCES


