

# CHILDREN'S ADVERTISING LITERACY

## EMPOWERING CHILDREN TO COPE WITH ADVERTISING

A MULTIPERSPECTIVE INQUIRY INTO CHILDREN'S ABILITIES  
TO CRITICALLY PROCESS CONTEMPORARY ADVERTISING

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## **ENGLISH SUMMARY**

The present dissertation has germinated from AdLit (short for Advertising Literacy), which is a nearly completed four-year interdisciplinary research project (2014- 2018) funded by VLAIO (Flanders Innovation & Entrepreneurship). This project is based on a collaboration between 19 researchers at four Flemish Universities (UGent, KUL, UA & VUB) and various stakeholders in the realm of policy, society, education and marketing.

The main goal of AdLit is to examine how minors can be empowered to cope with contemporary advertising, and hence become critical consumers that independently make conscious and well-informed choices. To date, this has been achieved by investigating the current levels of advertising literacy in Flanders and how these can be increased, and by examining how regulation and policy can protect minors. In this process, numerous research reports and scientific publications have been delivered, and socially valorized (e.g. by spreading brochures, videos, games and educational material to parents, teachers, educators, advertisers and the minors themselves).

The current thesis bundles the theoretical essays and empirical studies conducted by the PhD candidate at the Center for Persuasive Communication (CEPEC) within the Department of Communication Sciences (Ghent University), who specifically focuses on investigating and improving the advertising literacy of *children* for the advertising formats they are currently targeted with. As made clear in each of the following chapters in more detail, this particular focus is motivated by the observation that children today are not only exposed to advertising more frequently than ever, but also to many 'new' forms of advertising. Most characteristic is that these integrate advertising in highly entertaining and engaging media formats, such as movies, videogames and YouTube vlogs. It is generally indicated that, as children are still developing, they will more consciously engage with this explicit, immersive content, rather than with the implicit, commercial content. Thereby they are unlikely to muster the necessary motivation and cognitive resources to cope critically with the embedded advertising, and to develop the relevant advertising literacy needed to deal with future exposure to advertisements using similar tactics. Ultimately, this implies that children are most vulnerable to preconscious and possibly unwanted persuasion.

These concerns have sparked a lively debate, which seems to be dominated by two major assumptions. In particular, it is thought that 1) children are unable to adequately cope with contemporary advertising, though 2) can they can be enabled to deal with advertising, but only through 'affective defense mechanisms' – that is, by encouraging resistance through having them evoke negative attitudes when confronted with advertising. As these assumptions may have far-reaching consequences for the societal and political approach of this topic – for instance, adherence to protection or restriction versus empowerment – the present dissertation scrutinizes their validity using a variety of academic perspectives and methods. More specifically, it is examined 1) whether 8- to 12-year-old children have the potential to cope with these ad formats, and 2) whether they can be enabled to do so in a conscious, well-advised, cognitively elaborate and critical manner (on the moment of exposure), rather than through affective defenses only.

To meet these goals, the first three chapters aim to deepen and expand insights on children's abilities to cope with the current, mostly embedded advertising formats directed at them.

In particular, the first chapter provides a theoretically grounded conceptual framework on which to build subsequent research, reckoning with children's developmental skills. Here it is argued that investigating their advertising coping abilities may require the consideration of multiple, mutually interacting types and dimensions of advertising literacy. Thereby it is proposed for researchers to adopt the concept of *moral* advertising literacy, or at least to acknowledge the importance of evaluating advertising practices – which are of an increasingly covert nature – in a moral manner.

The second chapter builds on this conceptualization to deliver a critical overview of methods and instruments used in extant literature to measure children's advertising literacy, as methodological issues may have been partially responsible for the inconsistent findings with regard to children's coping abilities. On this basis, suitable ways are recommended to assess this concept according to age-related psychological development, for instance by using illustrated questionnaires or qualitative interviews for children in late childhood.

The third chapter uses the latter method, and more specifically draws on 12 focus groups (using child-friendly eliciting and probing techniques) including 60 children of ages 9-11 years, to further explore the newly proposed concept of moral advertising literacy. This study demonstrates that when children are made aware of implicit advertising tactics and their effectiveness, they have the potential to critically reflect on these, and more specifically to evaluate the appropriateness of these advertising practices with possible consequences for others in mind.

Having established children's potential for critical thinking about advertising in the current context, the following three chapters of this dissertation aim to explore how certain interventions or strategies may enable them to acquire the relevant advertising literacy, and use it at the moment of exposure.

As it is desirable for such interventions to ascertain which social actors can be involved to most efficiently impart advertising literacy on children, the fourth chapter first explores the role of parents, peers (here: classmates) and teachers in transferring and exchanging advertising-related knowledge, skills and beliefs. Using the appropriate multilevel analysis techniques on data from 9- to 12-year-old children ( $n = 392$ ), their peer group (children aggregated per class;  $n = 22$ ), their parents ( $n = 191$ ), and their teachers ( $n = 22$ ), it is found that children's cognitive and attitudinal advertising literacy is strongly influenced by their classmates – suggesting they could be attributed an empowering role in children's development of the respective advertising literacy dimensions. Moral advertising literacy proves to be more influenced by children's teacher, albeit in a remarkable manner – ultimately suggesting to focus first on updating teachers' (and parents') advertising literacy, especially for the newer formats.

Finally, the fifth and sixth chapter use previous insights to develop and test various strategies and interventions designed to help children cope more effectively with embedded, entertaining and engaging advertising formats when the need arises. Chapter 5 focuses on sponsorship disclosure by testing whether the effectiveness of an advertising warning cue depends on specific characteristics, and more specifically its perceptual modality (S1,  $n = 98$ ) and its timing (S2,  $n = 142$ ). Here it is demonstrated that a visual forewarning cue (rather than an auditory or concurrently shown cue) most adequately triggers 8- to 10-year-old children's advertising literacy for brand placement in TV programs and movies. In chapter 6, it is shown that for advertising embedded in a highly engaging media format,

namely a sponsored YouTube vlog, a more implicit strategy based on priming (preceded by education) is more effective in activating 5<sup>th</sup>- and 6<sup>th</sup>-grade primary school children's ( $n = 240$ ) advertising literacy. Moreover, in both chapters it is demonstrated that the advertising literacy as triggered by these interventions does succeed in altering outcomes desired by the advertiser, but in a manner that depends on children's evaluation of the advertising tactics.

Concluding that children can also be empowered to critically process contemporary, embedded advertising when confronted with it, the seventh and last chapter discusses the implications this conclusion may have for the current political and societal approach of children and advertising – thereby identifying opportunities for developing interventions that may help them grow toward independent, critical consumers that make well-informed judgments and (purchase) decisions.



## DUTCH SUMMARY

Dit proefschrift is voortgekomen uit AdLit (kort voor Advertising Literacy), een bijna-voltooid vierjarig interdisciplinair onderzoeksproject (2014-2018) dat gesponsord wordt door VLAIO (Agentschap Innoveren en Ondernemen). Dit project wordt gedragen door een samenwerking tussen 19 onderzoekers uit vier Vlaamse universiteiten (UGent, KUL, UA & VUB) en verscheidene stakeholders in de gebieden van beleid, samenleving, onderwijs en marketing.

Het voornaamste doel van AdLit is om na te gaan hoe minderjarigen in staat gesteld kunnen worden om het hoofd te bieden aan hedendaagse reclame, en zo op te groeien tot kritische consumenten die zelf bewuste en goedgeïnformeerde keuzes kunnen maken. Dit doel werd bereikt door onderzoek uit te voeren naar het huidige niveau van reclamewijsheid bij Vlaamse minderjaren (en de mogelijkheden om deze op te krikken), en naar hoe wetgeving en beleid hen bijkomende bescherming kan bieden. In dit proces werden tal van onderzoeksrapporten en wetenschappelijke publicaties opgeleverd, alsook maatschappelijk gevaloriseerd (bijv. door het verspreiden van brochures, video's, games en educatief materiaal onder ouders, leerkrachten, opvoeders, reclamemakers, en de minderjarigen zelf).

Deze thesis bundelt de theoretische essays en empirische studies uitgevoerd door de promovendus verbonden aan het Center for Persuasive Communication (CEPEC) van de Vakgroep Communicatiewetenschappen (Universiteit Gent), die zich daarbij specifiek heeft toegeleegd op het onderzoeken en verbeteren van de reclamewijsheid van *kinderen* voor de naar hen gerichte reclameformats. Zoals meer in detail wordt duidelijk gemaakt in de volgende hoofdstukken, kan deze focus worden verantwoord door de vaststelling dat kinderen vandaag niet enkel vaker dan ooit worden blootgesteld aan reclame, maar ook aan vele 'nieuwe' vormen van reclame. Meest kenmerkend voor deze nieuwe formats is dat ze reclame verwerken in hoogst entertainende en 'innemende' mediavormen, zoals films, videogames, en tegenwoordig ook YouTube vlogs. Hierbij wordt algemeen aangenomen dat ontwikkelende kinderen vooral bewuste aandacht hebben voor de expliciete 'redactionele' media-inhoud, en daarbij de impliciete commerciële inhoud eerder on- of voorbewust gaan verwerken. Van kinderen zou men immers moeilijk kunnen verwachten dat ze voldoende gemotiveerd en cognitief capabel zijn om kritisch om te gaan met geïntegreerde reclame, laat staan om op die manier de reclamewijsheid te ontwikkelen die nodig is om in de toekomst beter te 'copen' met reclame die gebruikt maakt van gelijkaardige tactieken. Uiteindelijk zou dit betekenen dat kinderen meest kwetsbaar zijn wat betreft voorbewuste en mogelijks ongewenste beïnvloeding.

Deze bezorgdheden hebben een levendige discussie aangewakkerd, die lijkt te worden beheerst door twee grote assumpties. In het bijzonder wordt aangenomen dat 1) kinderen niet in staat zijn om op adequate wijze om te gaan met hedendaagse reclame, hoewel 2) ze daar wel toe in staat kunnen gesteld worden, maar dan enkel met behulp van 'affectieve verdedigingsmechanismen' – namelijk door hen aan te leren weerstand te bieden via het oproepen van negatieve attitudes bij de confrontatie met reclame. Aangezien deze assumpties verstrekkende gevolgen kunnen hebben voor de maatschappelijke en beleidsmatige aanpak van dit onderwerp – bijv. aanmoedigen van bescherming of restrictie versus 'empowerment' – worden ze in dit proefschrift op hun validiteit getest door een

verscheidenheid aan wetenschappelijke perspectieven en methoden aan te wenden. In het bijzonder wordt onderzocht 1) of 8- tot 12-jarige kinderen het potentieel in zich hebben om met dergelijke reclameformats om te gaan, en 2) of ze ook in staat kunnen gesteld worden om dit te doen op een bewuste, goedgeïnformeerde, cognitief uitgebreide en kritische manier op het moment dat ze aan reclame blootgesteld zijn, eerder dan dit enkel en alleen zou lukken via affectieve verdediging.

Om deze doelen te bereiken, wordt in de eerste drie hoofdstukken voornamelijk beoogd om inzichten te verdiepen en uit te breiden omtrent het vermogen van kinderen om met de huidige, meestal geïntegreerde vormen van reclame om te gaan.

In het bijzonder voorziet het eerste hoofdstuk een theoretisch onderbouwd conceptueel kader waarop volgend onderzoek kan verder bouwen, daarbij rekening houdend met de ontwikkelende vaardigheden van kinderen. Hier wordt betoogd dat het onderzoeken van hun mogelijkheden tot coping vereist dat er rekening moet worden gehouden met meerdere, onderling interagerende types en dimensies van reclamewijsheid. Daarbij wordt ook voorgesteld aan onderzoekers om het concept van *morele* reclamewijsheid op te nemen, of op zijn minst het belang te erkennen van reclamepraktijken – die van een steeds meer verborgen aard zijn – te beoordelen op morele wijze.

Het tweede hoofdstuk bouwt verder op deze conceptualisering om een kritisch overzicht te bieden van methoden en instrumenten die reeds worden gebruikt in bestaand onderzoek om de reclamewijsheid van kinderen te meten, aangezien methodologische kwesties mogelijks deels verantwoordelijk geacht kunnen worden voor eerdere inconsistente bevindingen met betrekking tot de coping-vaardigheden van kinderen. Op basis hiervan worden passende manieren aanbevolen om dit concept in kaart te brengen (rekening houdende met leeftijdsgerelateerde psychologische ontwikkeling), bijvoorbeeld door gebruik te maken van geïllustreerde vragenlijsten of kwalitatieve interviews.

Het derde hoofdstuk gebruikt laatstgenoemde methode, en meer specifiek door zich te baseren op 12 focusgroepen (met kindvriendelijke technieken om de gesprekken te verdiepen) met 60 kinderen van 9 tot 11 jaar, om het nieuw voorgestelde concept van morele reclamewijsheid verder te verkennen. Samengevat toont deze studie aan dat wanneer kinderen bewust worden gemaakt van impliciete reclametactieken en hun effectiviteit, ze het potentieel vertonen om daar kritisch over na te denken, en in het bijzonder om de 'geschiktheid' (bijv. eerlijkheid) van dergelijke reclamepraktijken te beoordelen met de mogelijke gevolgen voor anderen in het achterhoofd.

Nu het is vastgesteld dat kinderen wel degelijk in staat zijn om kritisch na te denken over reclame in de huidige context, wordt in de volgende drie hoofdstukken betracht om te verkennen hoe bepaalde interventies of strategieën hen ook in staat kunnen stellen om de relevante reclamewijsheid op te doen, en deze ook daadwerkelijk in te zetten op het moment van blootstelling.

Aangezien het wenselijk is voor dergelijke interventies om eerst na te gaan welke sociale actoren kunnen worden ingezet om kinderen op meest efficiënte wijze reclamewijsheid bij te brengen, verkent het vierde hoofdstuk eerst de rol van ouders, leeftijdsgenoten (hier: klasgenoten) en leerkrachten in de overdracht en uitwisseling van reclamegerelateerde kennis, vaardigheden en overtuigingen. Door het toepassen van de geschikte multilevel-analysetechnieken op data van 9- tot 12-jarige kinderen ( $n = 392$ ), hun leeftijdsgenoten (kinderen geaggregeerd per klas,  $n = 22$ ), hun ouders

( $n = 191$ ), en hun leerkrachten ( $n = 22$ ), wordt bevonden dat de cognitieve en attitudinale reclamewijsheid van kinderen sterk bepaald wordt door hun klasgenoten als groep – wat suggereert dat deze een versterkende rol zouden kunnen opnemen in het bevorderen van de respectievelijke dimensies van reclamewijsheid. Morele reclamewijsheid blijkt meer te worden beïnvloed door de leerkrachten van de kinderen, zij het op een opmerkelijke manier – die suggereert dat interventies zich beter eerst zouden richten op het bijwerken van de reclamewijsheid van leerkrachten (en ouders), zeker wat betreft de nieuwere reclameformats.

Tot slot beroepen het vijfde en zesde hoofdstuk zich op voorgaande inzichten om verscheidene strategieën en interventies te ontwikkelen die tot doel hebben kinderen effectief te helpen met de ingebodde, entertainende en innemende vormen van reclame wanneer de nood zich voordoet. Hoofdstuk 5 focust op 'disclosure' (of openbaarmaking van sponsoring) door na te gaan of de effectiviteit van een reclamewaarschuwing cue afhankelijk is van specifieke kenmerken, en in het bijzonder van diens perceptuele modaliteit (S1,  $n = 98$ ) en timing (S2,  $n = 142$ ). Er wordt aangetoond dat een visuele waarschuwing vooraf (eerder dan een auditief of gelijktijdig weergegeven cue) meest geschikt is om de reclamewijsheid van 8- tot 10-jarige kinderen op te wekken in het geval van productplaatsing in tv-programma's en films. In hoofdstuk 6 wordt vervolgens getoond dat voor reclame die is ingewerkt in een zeer 'engagerende' mediavorm, namelijk productplaatsing in een YouTube vlog, een meer impliciete strategie gebaseerd op priming (voorafgegaan door een reclamewijsheidsles) effectiever is in het triggeren van de reclamewijsheid bij kinderen ( $n = 240$ ) uit het 5<sup>de</sup> en 6<sup>de</sup> leerjaar basisonderwijs.

Besluitend dat kinderen ook in staat kunnen worden gesteld om kritisch om te gaan met hedendaagse, ingebodde reclame op het moment dat ze er mee geconfronteerd worden, gaat het zevende en laatste hoofdstuk in op de mogelijke implicaties van deze conclusie voor de huidige politieke en maatschappelijke benadering van kinderen en reclame. Daarbij worden de mogelijkheden geïdentificeerd tot het ontwikkelen van interventies die hen kunnen helpen om op te groeien tot onafhankelijke, kritische consumenten die zelf goed onderbouwde oordelen kunnen vellen en (aankoop-) beslissingen kunnen maken.





# 0 INTRODUCTION

## 0.1 Children in today's advertising context

Today, children grow up in a media environment that has changed dramatically in the last few decades. This is especially so since the breakthrough and widespread use of the Internet and, more recently, since children increasingly came to possess personal devices that provide access to it. To illustrate, a recent Ofcom (2017) report shows that about half of British 8-to-11-year-olds have their own smartphone (39%) or tablet (52%), and that most of them now spend as much time online – mostly to play games, watch YouTube and check social media – as on watching TV on a set. As this trend seems to be rapidly progressing for some time now, policymaking bodies from many Western countries have been attempting to get a grip on this newly-emerged reality. Among others, they do so by promoting media literacy, that is, by stimulating children's abilities to use and understand media in various situations. The goal is not only to enable children to fully exploit the possibilities of extant media services, but also to help them manage the possible risks associated with these communications and their content (Ofcom, 2017). The present dissertation focuses on one of the major challenges for children in the current media context, namely an advertising environment that is becoming increasingly complex and difficult for them to grasp.

Indeed, marketers have swiftly adapted to the rapidly evolving media environment, and gratefully make use of the benefits it has over traditional media formats. As the omnipresence of TV and print ads competing for attention has pushed consumer perceptions of intrusion and irritation and subsequent ad avoidance behavior to the extreme (Campbell, Thompson, Grimm, & Robson, 2017), marketers increasingly step away from explicit forms of advertising, as these are easily identified as such and thus likely to evoke the negative connotations attached to them. Instead, they now turn more and more to implicit ways of advertising by integrating commercial content within media content, and by preference in entertaining and often interactive media formats (Nairn & Fine, 2008), such as advergames. For advertisers, this has the advantage that they can now communicate commercial messages more subtly, without interrupting or intruding. Moreover, consumers themselves are also increasingly actively involved in the advertising process, without being fully aware of this commercial role (and currently without much regulatory protection), as is for instance the case with vlog-based influencers setting up challenges involving branded products (Youngworks, 2016). These practices decrease the likelihood of targets resisting persuasion, as people will direct most of their conscious attention to the main editorial content (Buijzen, Van Reijmersdal, & Owen, 2010). Moreover, the fun and immersive formats in which advertising is often embedded have the additional benefit of allowing for the transfer of positive affect to the commercial elements (e.g., Neyens, Smits, & Boyland, 2017).

However, with regard to the targets of these 'covert' advertising practices, there is a growing level of ethical concern about the possible adverse effects of implicitly influencing children (Nairn & Fine, 2008). More specifically, it is often argued that children are too psychologically underdeveloped to muster the motivation and cognitive resources necessary to consciously and elaborately process advertising when it is embedded in an overwhelming media context (Rozendaal, Lapierre, van Reijmersdal, & Buijzen, 2011), and hence to develop the relevant advertising literacy needed to deal

with future exposures to advertising using similar tactics. Ultimately, this implies that children are most susceptible to preconscious and possibly unwanted persuasion (Hudders et al., 2017), which may also lead to more distal undesired consequences such as pestering and materialism (Hudders, Cauberghe, Panic, & Vos, 2016; Oprea, Buijzen, van Reijmersdal, & Valkenburg, 2014).

## 0.2 Dissertation aim and focus

The sociopolitical focus on vulnerability depicted above seems to have fueled two assumptions that appear to guide the current debate about children and contemporary advertising. On one hand, it is commonly thought that 1) children are unable to cope with contemporary advertising – or at least not in a cognitive, elaborate and critical manner. On the other hand, it is acknowledged that 2) children can be enabled to deal with this advertising, but only through affective defense mechanisms (Rozendaal et al., 2011). Although these assumptions are well supported by scientific rationale and empirical evidence, it can be argued that important nuances should be added.

Hence, this dissertation sets itself the aim of scrutinizing the extent to which these assumptions are valid, by proposing and answering various research questions they raise (as outlined in the following section). It does so from a variety of academic perspectives, and more specifically by refining and supplementing existing theories and methods, and empirically by combining quantitative analyses (on both micro-level experimental data and macro-level survey data) and qualitative analyses (using focus group interviews). In this way, contributions are made to the still limited body of literature on the current topic by delivering theory- and evidence-based insights on 1) children's abilities to cope with contemporary advertising, and more specifically on 2) their abilities for doing so in a critical manner through acquiring and using advertising literacy.

In particular, this thesis focuses on children in late childhood, as it is generally acknowledged that children between the ages of 8 and 12 undergo developmental changes most relevant to acquiring and applying advertising literacy. Moreover, children in this age category are often depicted as “cued processors” that – though they are assumed to be as vulnerable to advertising as younger children – do have the abilities to cope with it, but only when motivated to do so (John, 1999). Therefore it is an especially interesting group to gain insights in, which can be used to develop interventions and strategies to improve their advertising literacy.

For obvious reasons, this advertising literacy is examined in the context of the ad formats children are currently and commonly targeted with (see Cauberghe, De Pelsmacker, Hudders, Panic, & Destoop, 2012) – hereafter described as ‘contemporary advertising’. Although these include TV commercials, the emphasis is mainly on recently evolved and new formats, such as current (highly entertaining and emotionally appealing) executions of brand placement in TV programs, movies, videogames, and online videos. As mentioned earlier, children are assumed to have more difficulties with the implicit tactics these formats use, and their intentions and goals that cannot always easily be identified. More specifically, children are believed to have most trouble coping with advertising that is integrated (e.g., product placement in deeply engaging media), interactive (e.g., advergames) and personalized (e.g., retargeted pre-roll video advertising) (see De Pauw, De Wolf, Hudders, & Cauberghe, 2017).

With regard to the theoretical frameworks used in this dissertation, all of the included studies depart from a newly proposed conceptualization and corresponding methodology to examine children's advertising literacy (as is outlined in detail in the first two chapters). Although this framework is largely indebted to key theories about commercial persuasion (e.g., the Persuasion Knowledge Model by Friestad & Wright, 1994) and advertising processing (e.g., the model for Processing Commercialized Media Content by Buijzen et al., 2010), some of the widely acknowledged yet somewhat neglected components related to advertising literacy are highlighted, and new or adapted dimensions are introduced or more clearly delineated. For instance – and in accordance with the abovementioned assumptions regarding children's abilities to critically process contemporary ad formats and their implicit tactics –, equal attention is given to the children's possession (dispositional) as to the usage (situational) of advertising literacy, and emphasis is put on their knowledge of persuasive tactics (as a currently underestimated part of cognitive advertising literacy) and its importance for critical reflection (as reflected by moral advertising literacy).

The insights provided in this dissertation may have substantial repercussions for how this topic can or should be approached by actors in many fields (such as academia, education and parenting, and policy and regulation), which are presented at the end of each chapter, and discussed from a broader viewpoint in the final, concluding chapter.

### **0.3 Research questions**

The first three chapters in this thesis primarily aim to deal with the first assumption that appears to underlie the current discussion about children and advertising, namely:

#### **Assumption 1: Children are unable to adequately cope with contemporary advertising**

There is reasonable support for the claim that most children in late childhood reach a sufficient level of advertising literacy needed to cope with 'traditional' ad formats, such as classic TV and print ads (De Jans, Van de Sompel, Hudders, & Cauberghe, 2017). With regard to the recently evolved and newly emerged ad formats (such as advergames and sponsored influencer vlogs), by contrast, it is generally assumed that children are not sufficiently developed to consciously and elaborately process its commercial content as it is embedded in media that already addresses most of their cognitive resources (Rozendaal et al., 2011), and hence to develop the advertising literacy needed to deal with subsequent exposures. Indeed, when focusing on advertising effects, it has been consistently proven that children are much more likely to be persuaded by new ad formats with no or minimal resistance (De Jans et al., 2017).

Likely based on such assumptions and findings, Western societies tend (to be advised) to focus primarily on protecting children and even restricting their exposure to advertising – especially when embedded and/or involving personal data collection (e.g., Clifford & Verdoodt, 2017; Eagle & Dahl, 2018; Lambrecht, Verdoodt, & Bellon, 2018; Lievens & Verdoodt, 2018; Verdoodt, Clifford, & Lievens, 2016). While it is not the main goal of the current dissertation to propose detailed recommendations in the realm of law and regulation, it does intend to strengthen the foundation underlying the discussions leading to advice and possible decisions within this field. Thereby it departs from the observation that it

has not been yet been investigated whether children actually lack the ability or *potential* to cope with these ad formats, or more specifically, whether their developmental status makes it ‘technically’ impossible for them do so comprehensively, that is, by acquiring and using the relevant advertising literacy. It is important to fill this gap, as finding that children do have these abilities could shift the societal and political focus from protection and restriction toward empowerment through interventions and strategies, which are more instructive and may thus arguably be more fruitful in the long term.

To further insights in children’s coping abilities for contemporary advertising, several steps need yet to be undertaken. To start with, there is no ‘holistic’, theoretically founded conceptual and methodological framework available needed to jointly examine all of the established aspects of children’s advertising literacy (as put forward by Friestad & Wright, 1994) for embedded ad formats. As the assumption of children’s coping inabilities may result from conclusions based on inconsistent research findings (see De Jans et al., 2017) due to theoretical and methodological ambiguities regarding the conceptualization and hence assessment of their advertising literacy (Kunkel, 2010), following research questions are proposed (and each of them addressed in separate chapters):

RQ1: How can advertising literacy be defined, conceptualized and modelled, to allow for a thorough examination of children’s abilities to cope with contemporary advertising?

RQ2: How can advertising literacy be measured, to allow for a comprehensive assessment of children’s abilities to cope with contemporary advertising?

Moreover, and perhaps due to the predominant focus on children’s developmental weaknesses rather than their maturing strengths and corresponding opportunities, it has not yet been investigated whether children are able to develop (and use) *moral* advertising literacy, or to critically judge advertising using moral reasoning strategies. Although Friestad and Wright (1994) perceived this literacy aspect as indispensable to arrive at “valid” attitudes and matching coping behavior, it has only been proven among adult study subjects that their judgments of the appropriateness of (covert) advertising tactics plays a decisive role in how they respond to such ads (e.g., Nelson, Wood, & Paek, 2009; Wei, Fischer, & Main, 2008; Yoo, 2009). Nonetheless, as children in late childhood develop a more complex Theory of Mind and thus perspective-taking ability, which is essential for moral reasoning (Perner & Lang, 1999), it is argued in this dissertation that they should also be able to do so in the context of advertising. The according research question is formulated as follows:

RQ3: To what extent are children able to critically reflect on contemporary advertising through moral advertising literacy, that is, by judging the appropriateness of current advertising practices?

Next, the following three chapters in this dissertation mainly intend to dissect the second assumption:

## **Assumption 2: Children can be enabled to deal with advertising, but only through affective defense mechanisms**

Notwithstanding the previous assumption that children are currently unable to cope with contemporary advertising, it is increasingly believed that children can be enabled to do so; albeit not in a cognitive elaborate way, but rather in a more affective manner. Indeed, it can be argued that even if children possess the relevant advertising literacy to critically reflect on advertising, they may not be capable to actually use it during (or shortly after) exposure. More specifically, it is reasoned that as – in a mentally consuming and emotionally arousing advertising context – children are forced to process the commercial content under conditions of low cognitive elaboration, they can only defend themselves using “low-effort, attitudinal mechanisms” (Rozenaal et al., 2011, p. 333) such as inducing persuasion resistance by evoking negative feelings that are usually associated with traditional ad formats (e.g., the irritation that is often perceived when commercials interrupt TV programs).

This assumption is strengthened by many studies showing that possessing cognitive advertising literacy – or having the abilities and skills to recognize and understand advertising – does not always make children less susceptible to ad effects (De Jans et al., 2017). However, and as mentioned above, it cannot be ruled out that these inconsistent findings are to some extent caused by the differing conceptualizations and corresponding methodologies characterizing this research field (Kunkel, 2010).

Moreover, for children it has not been investigated yet what could underlie the relationship between cognitive advertising literacy and ad effects. Research among adults has shown that (enhancing) adults' comprehension of an ad format and its implicit tactics does not directly reduce persuasion on subsequent exposure, but rather determines advertising effectiveness depending on their ad-related evaluations, such as their moral judgment of the appropriateness of the ad practice (see above). Accordingly, based on extant research, it can currently not be excluded that children's cognitive advertising literacy does alter how they react to contemporary advertising, when taking the possible moderating role of attitudes and evaluations into account.

Furthermore, if the same path would apply to children, such findings would give a different and perhaps more correct interpretation to what it means for children to process advertising in a critical manner – which is arguably the main goal of imparting advertising literacy. In the affective defense view, critical (or 'skeptical') processing seems to be equated to negatively evaluating any ad, and is deemed to have occurred when a child has successfully resisted the persuasion attempt. It could be argued, however, that critical thinking is inherently neutral and should not necessarily amount to mitigating intended ad effects. For instance, if a child approves of an ad because it is perceived as original or creative, informative or innovative, truthful or honest, 'good for business', etc., he or she may as well consciously allow to be persuaded, as a result of critical reflection.

Nonetheless, it remains uncertain whether children can be enabled to engage in this kind of complex and elaborate thinking when the need is highest, that is, when they are mentally most encumbered by the entertaining and engaging media in which advertising is integrated. In this regard, a number of interventions have already been tested to extend children's advertising literacy – primarily through advertising literacy education – and to stimulate children to actually use it when exposed to contemporary advertising – mainly through disclosure cues (De Jans et al., 2017).

As concerns advertising literacy training to expand children's advertising literacy, it is only since recently that research has started to focus on the newer, embedded forms of advertising (though mostly on advergames). However, these sessions have mainly aimed to improve cognitive advertising literacy, and in particular ad recognition and understanding (e.g., An, Jin, & Park, 2014), and to encourage 'attitudinal advertising literacy', or negative attitudes toward advertising (e.g., Hudders, Cauberghe, & Panic, 2016), to ultimately decrease the effects it has on children. To date, no efforts have yet been made to augment children's moral advertising literacy, which could be achieved by focusing education on improving children's awareness of the implicit tactics used in contemporary advertising, and on identifying possible aspects upon which their appropriateness can be judged. Moreover, existing studies have almost exclusively tested the effectiveness of single training sessions delivered by researchers (del Mar Pàmies, Ryan, & Valverde, 2016). Thereby it has not been thoroughly reflected upon which social actors – that are primary socializing agents to young children, namely parents, peers and teachers – are currently most influential in shaping children's set of knowledge, skills and beliefs regarding contemporary advertising, and could thus be involved to most efficiently impart advertising literacy to children. Hence, following research question needs to be answered:

RQ4: To what extent and how is children's cognitive, attitudinal and moral advertising literacy determined by their social environment, and more specifically by their parents, peers and teachers?

With regard to disclosure cues as intervention, no convincing progress has yet been achieved in helping children fully cope with advertising, or at least not in triggering the advertising literacy needed for critical thinking during (or shortly after) exposure to embedded and engaging ad formats (again mostly advergames; e.g., An & Stern, 2011; Panic, Cauberghe, & De Pelsmacker, 2013). However, as suggested by An and Kang (2013, 2014), this may be partially explained by the specific characteristics of the cues presented in these studies, which were perhaps not optimized to capture the little remaining attention that children can muster in the current advertising context. Therefore following research question is proposed:

RQ5: How decisive are disclosure cue characteristics (such as perceptual modality and timing) with regard to its effectiveness in triggering children's advertising literacy for embedded and entertaining advertising formats (e.g., product placement), and its ability to alter advertising effects through stimulating critical reflection on the advertising practice?

Nevertheless, even if it can be proven that disclosure cue characteristics can be optimized in a way that allows children to cope critically with integrated and 'fun' advertising formats, it may still be reasonable to argue that – as any explicit cue will require a substantial portion of children's attention – this intervention may be less effective in case of the most recently arisen ad practices, such as influencer marketing through brand placement in blog videos (Youngworks, 2016). In brief, vloggers are extremely successful at engaging their audience (Lawrence, Fournier, & Brunel, 2013) and gaining their trust (Hansen, Lee, & Lee, 2014), which should make it even more difficult children to consciously process sponsored content, let alone for them to 'suspect' that advertising is present. However, recent work by Fransen and Fennis (2014) suggests that more implicit strategies could provide solace here. More

specifically, they have shown that a strategy based on priming is not only equally effective as an explicit forewarning strategy, but also addresses less cognitive resources in decreasing the persuasive effect of advertising among adults. Accordingly, a final research question is formulated:

RQ6: Is an implicit priming strategy more effective than an explicit forewarning cue in triggering children's advertising literacy for highly engaging ad formats (such as sponsored vlogs), and its ability to alter advertising effects through stimulating critical reflection on the advertising practice?

In the next section, it is outlined in more detail how these research questions are addressed in the following chapters, and how their findings and/or conclusions are taken into account by subsequent studies.

## **0.4 Dissertation outline**

The content of the next chapters is equal to the six articles written (and either published, accepted or in the process of being reviewed) by the PhD candidate, with each chapter entailing its own abstract, introduction, discussion and conclusion, and list of references. In this section, a summary is provided of each of these chapters.

Although both assumptions form the common thread throughout this dissertation as a whole, the first three chapters mostly focus on children's potential abilities to cope with contemporary advertising. More specifically, Chapter 1 and 2 lay the theoretical and methodological foundations for studying children's advertising literacy in the current context, reckoning with their cognitive, emotional and moral development. Chapter 3 digs deeper into the newly introduced concept of moral advertising literacy, by exploring children's abilities for reasoning about the appropriateness of embedded, interactive and personalized advertising tactics.

The next three chapters are primarily concerned with the assumption that children are only able to deal with advertising through affective defense mechanisms. In particular, Chapter 4 explores how the different aspects of advertising literacy are contextually determined and how they are interrelated, thereby providing insight in which actors play an important role in transferring advertising literacy needed for critical reflection, and in how the latter relates to advertising-related (affective) attitudes. Chapter 5 and 6 uses the insights gained in previous chapters to test whether various strategies and interventions may enable children to critically cope with advertising when confronted, thereby focusing on the underlying role of affective and moral evaluations.

## Chapter 1: Conceptualizing Children's Advertising Literacy

This dissertation starts with a theoretically grounded conceptual framework for investigating children's processing of the contemporary advertising formats that integrate commercial content in immersive media content, in light of their developmental abilities. In particular, this chapter departs from conceptual (and methodological) issues identified in previous research, and provides suggestions for future studies aiming to examine and improve children's coping with embedded advertising.

Important for subsequent chapters in this thesis (and future research in general) is the explicit conceptual distinction made between dispositional and situational advertising literacy, and (especially) between the cognitive, affective and moral dimensions that can be identified in both types of literacies.

In brief, it is observed that extant literature rarely discriminates between **dispositional advertising literacy** – i.e., the *possession* of advertising literacy, or the advertising-related knowledge, beliefs and abilities children have formed throughout life – and **situational advertising literacy** – i.e., the actual *application* of dispositional advertising literacy, allowing children to recognize, understand and critically reflect upon an ad at the moment of exposure (cf. Friestad & Wright, 1994). It is argued that this distinction is all the more essential in the current context, as children possessing the relevant advertising literacy may still not be capable or motivated to elaborately process commercial content when immersed in the engaging content it is embedded in (see Rozendaal et al., 2011). As most empirical studies (whether or not deliberately) focus on situational advertising literacy, **Chapter 4** is dedicated to mapping and explaining children's current levels of dispositional advertising literacy for contemporary ad formats. **Chapter 2** elaborates on the methodological disparities existing today due to (among others) failing to distinguish between situational and disposition advertising literacy.

Next, it is noticed that existing research almost exclusively focuses on advertising literacy's cognitive dimension and advertising-related attitudes, while disregarding potential moral aspects. In short, **cognitive advertising literacy** (cf. persuasion knowledge) is defined as the knowledge and skills needed to cope with advertising through recognition and understanding (cf. Friestad & Wright, 1994), and **attitudinal advertising literacy** as holding skeptical attitudes toward advertising (often resulting in resistance toward persuasion<sup>1</sup>) (Rozendaal et al., 2011). The authors propose to add a new dimension, namely **moral advertising literacy**, which they define as the ability and propensity to morally evaluate advertising. They argue that it only becomes more important to judge the appropriateness of advertising tactics, as children are increasingly targeted with covert marketing practices. Accordingly, **Chapter 3** is devoted to examining children's use of moral reasoning strategies to evaluate new ad formats and tactics. **Chapter 4** also investigates how the different dimensions of advertising literacy are interrelated.

Furthermore, based on the concepts described above, a **conceptual model** is proposed. Simply put, the model proposes that when children are exposed to embedded advertising, they can

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<sup>1</sup> Actually, as the authors argue that advertising literacy should not per se result in ad resistance, they propose a more neutral dimension of advertising literacy, namely "**affective advertising literacy**". This newly introduced concept refers to the conscious awareness of one's initial emotional reactions toward advertising, and the ability to regulate or suppress these reactions. However, as this concept has not yet been methodologically operationalized, it has not been adopted in the following empirical studies in the present thesis.



either comply by (preconsciously) allowing for a transfer of positive affect (generated by the engaging content) to the ad, brand or product; or their situational advertising literacy is triggered. Following the latter path, children will recognize, understand and critically reflect upon the ad, by retrieval and application of the cognitive, affective and moral knowledge and skills stored in their (associative neural network of) dispositional advertising literacy. The ease with which children retrieve and apply the knowledge and skills that are most relevant to deal with a specific ad depends on their *coping skills*, which are primarily developed through trial and error with similar advertising practices. Successful application will then lead to expansion and refinement of children's dispositional advertising literacy, which they can subsequently invoke to cope increasingly adequately with future exposure to embedded advertising. However, as the article points out, this process of developing advertising literacy cannot be taken for granted, as it is not only hampered by the nature of embedded ad formats, but also limited by children's socialization as consumers combined with their age-dependent development of cognitive and social abilities in general (see John, 1999).

Considering this bottleneck within the proposed conceptual model, several externally induced **strategies** are suggested to extend children's advertising literacy more actively and rapidly (than through natural socialization and spontaneous experience and practice with advertising alone) and to stimulate their recognition and critical processing of embedded advertising in a more automatic and implicit manner. For instance, it is proposed that existing strategies, such as educational sessions, can be used to first expand children's dispositional advertising literacy, and that more implicit strategies such as priming (and implementing intentions) may consequently help them to retrieve and apply this freshly learned knowledge and skills (during ad exposure) using a minimum of cognitive resources – this idea is empirically tested in [Chapter 6](#).

Finally, and more generally, it should be noted that the current chapter already considers the second assumption regarding the role of affective attitudes and evaluations in children's coping with advertising. That is, throughout the article an important message is conveyed, in which is reasoned that critical reflection should not per se result in decreased ad effectiveness. Instead, it is postulated that the valence of outcomes desired by the advertiser will ideally be determined by children's critical reflection on the ad, which can be judged negatively, but also in a positive manner, for instance when the tactics used are deemed appropriate. This premise is a common thread running through the following chapters, and is subjected to empirical scrutiny in [Chapters 5 and 6](#).

## **Chapter 2: Measuring Children's Advertising Literacy**

This chapter directly builds on the theoretical foundations laid out in the previous chapter, and more specifically departs from the methodological issues resulting from the conceptual ambiguities identified in extant research (in which a variety of constructs is used, implying different interpretation and limited comparability of results across studies). It does so by first delivering a critical overview of methods and instruments used in key studies measuring children's advertising literacy. Ultimately, recommendations are formulated concerning the most suitable methods for assessing advertising literacy according to children's age-dependent psychological development and corresponding abilities.

Of particular interest for the following empirical studies within this dissertation is the section on "tweens", a meaningful category grouping children between 9 and 12 years old (thus including "cued

processors"). In essence, it is argued here that these children acquire the cognitive, emotional and moral abilities needed both to develop and use the corresponding dimensions of advertising literacy, and for scholars to adequately assess these constructs with a wide range of possible instruments at their disposal.

Nonetheless, it is observed that currently tweens are almost exclusively approached with classic, self-administered questionnaires to determine their level of (situational cognitive) advertising literacy (and advertising-related attitudes). However, the article warns not to overestimate these (not yet fully developed) children's abilities with regard to language, reading, memory and – especially – attention span. Considering these potential limitations, it is argued that tweens may still benefit from the methodological recommendations made for the younger age groups addressed in the article, such as visualizing questionnaires as much as possible (in order to concretize the verbally formulated questions, items and response options). This advice was taken to heart in creating the surveys for the empirical, quantitative studies in [Chapter 4, 5 and 6](#).

Additionally, this article pleads for academics to (re-)acknowledge both the suitability and added value of conducting qualitative interviews. That is, tweens rapidly become more adept at verbally expressing themselves, and face-to-face or focused group conversations may thus be the ideal platform to scrutinize their (dispositional) advertising-related knowledge and beliefs without fixed assumptions. Moreover, these methods may provide the richest insights when exploring the depths of newly suggested concepts such as moral advertising literacy, and in particular children's abilities necessary for moral reasoning about implicit advertising tactics, as interviews allow for discussing possible moral dilemmas inherent to contemporary (embedded) advertising – which is exactly what is undertaken in [Chapter 3](#).

### **Chapter 3: Exploring Children's Moral Advertising Literacy**

The current chapter thus aims to further explore children's moral advertising literacy for new advertising formats, drawing on 12 focus groups including 60 children of ages 9-11 years.

The article departs from the observation that ad formats today decreasingly revolve around persuading through explicit, informative messages (cf. classic TV commercials) and are increasingly about influencing through implicit *tactics*, which primarily function at a preconscious level (e.g., via positive affect transfer mechanisms). Considering the latter and the ethical questions that have arisen about covert marketing practices (i.e., influencing without targets' awareness, and/or collecting their personal data), it is deemed remarkable that few studies have considered children's comprehension of persuasive tactics – which is nonetheless a core aspect of the widely acknowledged Persuasion Knowledge Model (PKM; Friestad & Wright, 1994).

In this regard, and as covered by the article in more detail, the PKM posits that for consumers to adequately cope with an advertisement, they should not only recognize and understand the ad tactic used, but also estimate its effectiveness (considering its intended psychological functioning). Consequently, they should use this information to judge the appropriateness of the ad (e.g., as fair or rather manipulative, given its specific context) based on moral reasoning strategies (e.g., considering the advertiser's motives and intentions, and other consumers' abilities to deal with the ad's tactics).

To ascertain whether children are able to cope with the new ad formats in the well-substantiated and critical manner described above, it is examined what children know about the persuasive tactics used, how they evaluate them, and what are the reasoning strategies underlying these judgments. More specifically, it is explored whether children (are able to) approach brand placement (incl. ad integration), advergames (incl. ad interactivity) and pre-roll video ads (incl. ad personalization) with a critical mindset by morally evaluating the appropriateness of the tactics used by these formats.

First, their ad tactic knowledge and understanding is probed by discussing three videos illustrating the selected ad formats. When children show no ad awareness, the tactics are explained using low-key vocabulary (e.g., personalized ads looking in one's "online diary"), and, finally, it is asked what they think of such practices. Second, children's reasoning strategies (underlying their evaluation of these tactics) are elicited by discussing three comic scenarios that depicted possible dilemmas that may arise when judging the studied ad formats, and in which both 'advantages' and 'disadvantages' are contrasted (e.g., showing a child disliking brand placement because it is "hidden" advertising, versus the father liking it because it doesn't interrupt the movie – consequently asking participants with which stance they agree).

The results regarding tactic knowledge and beliefs indicate that, initially, most children are not that vigilant about detecting integrated advertising, and only show a basic understanding of advertising in general (i.e., of its selling intent). However, after providing them with an explanation, nearly all of them show to understand how the ad tactics function, and also spontaneously bring up their own experiences with similar tactics (thus processed in retrospect). Nevertheless, few children are convinced of the effectiveness of such ads, as they seem to question the mechanism of preconscious persuasion – which has consequences for how they evaluate the ad formats and tactics.

The second part shows that children's judgments are initially in accordance with their positive experiences with the embedded formats. Even after the explanation, they show indifference by having few issues with the appropriateness of such ads, as they still believe that they cannot be persuaded when not aware of the presence of advertising. However, after encouraging them to reflect more deeply on the possibility of preconscious persuasion (and the collection of personal data), many children eventually do perceive such practices as deceptive. These judgments are often based on moral reasoning, as they show to consider the possible consequences of these tactics for others (incl. unknown or abstract actors). This usually involves a trade-off between individual advantages versus moral or ethical disadvantages (e.g., brand placement does not interrupt movies, but many people are not aware that it is a form of advertising), or the other way around (e.g., personalized advertising breaches my privacy, but also benefits the economy and employee welfare).

To conclude, this chapter demonstrates that while children not spontaneously do so (cf. "cued processors"), they certainly have the ability to cope consciously and critically with contemporary ad formats that make use of implicit tactics. To encourage this, it is proposed that they need to be made aware of these tactics and how they work, convinced of the realness and effectiveness of preconscious persuasion, and nudged to morally evaluate such practices (by having them consider the potential consequences for others). Ultimately, this should empower them to form richer judgments about advertising, and to make better substantiated consumer decisions.

Having established the ability to form a deeper understanding and corresponding moral judgments of new ad formats, the empirical studies in Chapters 4, 5 and 6 investigate the role of children's moral advertising literacy and/or their evaluation of the appropriateness of the studied ad formats and tactics. Chapter 6 also adopts the abovementioned elements needed to stimulate children's critical ad processing in an advertising literacy training session, and tests its effectiveness (in combination with advertising-literacy activating strategies) in determining outcomes desired by the advertiser.

#### **Chapter 4: Examining the Contextual Determinants of Children's Advertising Literacy**

The study reported in the current chapter aims to dig deeper into the various dimensions of (dispositional) advertising literacy (as established in previous chapters), by exploring how they are interrelated, how they are determined – and, more specifically, how they are affected by children's environment. Thereby insights are given in the role of significant others in children's acquisition of advertising literacy, which may inform the development and implementation of interventions aiming to expand their advertising literacy. Moreover, this chapter should further understanding of how cognitive skills and the propensity for moral reasoning relate to affective attitudes with regard to advertising (cf. the affective defense mechanism), and of how these elements may jointly contribute to critical reflection on contemporary advertising.

The contextual focus on these dimensions is also motivated by the observation that, despite advertising being an increasingly social phenomenon, most advertising literacy research exclusively fixates on the individual child. Acknowledged are the many studies on parental advertising mediation, advertising literacy educational interventions at school, and a few studies on peer influence; though also pointed out is a lack of consideration for the new ad formats, the influence of teachers themselves, and the role of peers in a possible transfer of advertising literacy.

To address this gap, it is explored to what extent and how children's literacy for contemporary advertising is shaped by their parents, classmates and teachers, while considering these children's own individual characteristics. To this end, four datasets are created linking information from 9- to 12-year-old children ( $n = 392$ ), their peer group (children aggregated per class;  $n = 22$ ), their parents ( $n = 191$ ), and their teachers ( $n = 22$ ). Being exploratory, the analyses aim for explaining as much variance as possible in children's cognitive, attitudinal and moral advertising literacy, by linking these outcomes to variables associated with literacy in the extant literature, for each of the actors included in this study – to ultimately arrive at the best-fitting model for each of the three dimensions. Unlike extant research, multilevel techniques are used to analyze both individual and class level influences (and their interactions) simultaneously, allowing to identify macro-processes affecting children's advertising literacy over and above the effects of their own, individual features.

Overall, it is revealed that a relatively large part of children's differences in cognitive and attitudinal advertising literacy can only be explained at the level of the class. In particular, many findings indicate that children's peers are most influential in transferring advertising-related cognitions and attitudes. Among others, it is found that children's ad recognition skills can be strengthened by the awareness of contemporary ad formats present in class, and that children are more skeptical toward advertising when their classmates are less compliant toward advertising, and characterized a higher

socioeconomic status (independent from the individual children's own features). Based on these results, it is recommended that advertising scholars should (at least statistically) acknowledge group influences, and particularly those coming from peers (in terms of content) – who also might be assigned a more active role in class-based interventions (in terms of future research).

With regard to moral advertising literacy, in contrast, it is shown that children are considerably less susceptible to group influences, though substantially influenced by their teacher – and in a quite remarkable manner. In particular, children are found to reflect less on advertising's appropriateness when their teacher has *more* cognitive advertising literacy and engages *more* in active advertising mediation. The proposed explanation is that teachers' advertising literacy may be mostly limited to traditional ad formats such as TV commercials (as previous studies found to be the case for parents), which they tend to portray in a negative light, thereby encouraging ad resistance rather than moral reflection. In other words, the current study underlines the importance of increasing not only children's but also teachers' (and parents') literacy for contemporary advertising.

Finally, interesting results are also found on the individual level, essentially suggesting that a positive (or "open") rather than a negative (or "closed") attitude toward advertising may actually enhance children's literacy development, as such a disposition is more likely to allow for experiential learning through conscious, elaborate and perhaps critical processing of ads. The concluding part of this dissertation (Chapter 7) will further discuss what these findings may imply for the role of attitudes in advertising literacy, and for the conception of "critical thinking" about advertising.

## **Chapter 5: Activating Children's Advertising Literacy with Explicit Forewarning Cues**

In this and following chapter, the insights gained from the research outlined above are put to use by examining whether and how adapted and newly proposed strategies may actually help children to cope more consciously and critically with contemporary and new ad formats by triggering their advertising literacy – that is, situationally, at the moment of exposure. Furthermore, it is investigated whether this literacy may alter children's reactions toward ads (in terms of outcomes desired by the advertiser) and what is the role of their affective and moral judgments in this process (in line with previous chapters).

The current chapter reports on two studies that are built on the premise that "cued processors" per definition benefit from advertising disclosures such as (warning) cues. Further, it is argued that, as contemporary ad formats leave little cognitive resources for children to elaborately process advertising, it is all the more important to examine which *types* of cues are most adequate in capturing children's already scant attention. Therefore, it is tested whether a cue's effectiveness is contingent on its perceptual modality (S1,  $n = 98$ ) and its timing (S2,  $n = 142$ ) in terms of triggering 8- to 10-year-old children's advertising literacy for embedded advertising and consequent adjustment of persuasion, according to their attitudes toward the ad format – here: TV and movie brand placement.

The first study shows that a visual cue is more effective than an auditory warning cue (vs. no cue) in activating children's cognitive advertising literacy. However, it was also found that the latter alone is not sufficient to explain the effect of this cue on their brand attitudes.

The second study demonstrates that the visual cue is even more effective when shown prior to (vs. during) the media content. Moreover, the cognitive advertising literacy it triggers does influence children's susceptibility for persuasion, but only when taking their attitudes toward the ad format into

account. In particular, it is shown that when children are less skeptical toward brand placement, the cue-activated cognitive advertising literacy increases their attitudes toward the brand, while this positive relationship disappears among the more skeptical children.

One obvious implication of these findings is that authorities (and academics) should pay special attention to disclosure characteristics when aiming to develop a cue to enhance children's coping with embedded advertising. Another implication, especially for research, is that scholars should not assume that cognitive advertising literacy will directly lead to a decrease in persuasion – often they will not find any association. Rather, they should acknowledge the indispensable *moderating* role of children's attitudes toward the ad format and its tactics in this relationship. Keeping this conceptual model in mind is also in line with a more nuanced conception of critical processing (of which the result could also favor the ad), as was already considered in [Chapter 1](#), and will be further discussed in the concluding [Chapter 7](#) of this dissertation.

With regard to the latter, however, the article commands some caution in terms of the extent to which participants actually engaged in critical thinking, as they were likely not fully informed about brand placement, implying that they may not yet had formed well-substantiated beliefs to judge its tactics with. Therefore, [Chapter 6](#) will (among others) examine whether advertising-literacy activating strategies are more effective when preceded by an educational session that aims to expand and/or refine children's dispositional advertising literacy relevant to be activated when exposed to embedded advertising.

## **Chapter 6: Activating Children's Advertising Literacy with Implicit Priming Strategies**

The studies in the previous chapter have proven that a classic, visual forewarning cue is fairly effective in helping children cope with brand placement on TV and in films. It can be questioned, however, whether this is also the case for newer forms of covert (online) advertising, such as sponsored YouTube blog videos (which are immensely popular among children). That is, vloggers integrate branded content in a media context that is arguably even more (emotionally) engaging, and possibly drains the little cognitive resources children have left to process a warning cue itself, to start with.

To address this issue, the study covered in the present chapter builds on insights provided by Franssen and Fennis (2014), who have shown that an *implicit* strategy, namely priming (i.e., by asking consumers to describe a situation in which someone tried to influence them), is not only equally effective as explicit forewarning, but also addresses less cognitive resources (here: for adults to resist persuasion for traditional advertising). Therefore, the present study examines whether a prime versus a warning cue (vs. no strategy) helps 5<sup>th</sup>- and 6<sup>th</sup>-grade primary school children ( $n = 240$ ) to cope with sponsored vlogs by (situationally) activating their advertising literacy. However, as children's dispositional advertising literacy for the newer ad formats is low, it is investigated whether the effectiveness of both strategies can be increased by first expanding their knowledge and beliefs about contemporary forms of brand placement (see also [Chapter 3](#)) through education. Further, as it is argued that (externally induced) coping strategies should aim for critical processing of ads in the first place (rather than mere affect-based resistance of persuasion), it is examined whether the influence of the activated advertising literacy on ad effects is guided by children's evaluation of the ad practice (which is in line with previous chapters). In addition to advertising literacy, it is also explored what is the possible mediating role of children's trust in the vlogger (i.e., source credibility) and their perception of sponsorship transparency,

as these factors are also known to be affected by sponsorship disclosure, and to influence outcomes desired by the advertiser (i.e., attitude toward the ad and brand, and eWOM).

The results show that both cue and prime negatively influence children's perception of the vlogger's credibility – which lowers the ad's effectiveness – but at the same time also positively influence their perception of the vlogger having transparently communicated about being sponsored – which heightens ad effectiveness. Only the priming strategy preceded by an educational training session proves to be capable of actually triggering advertising literacy, which in its turn affects the extent to which children intend to engage with the ad through eWOM – though in a manner that depends on their moral evaluation of the practice of covertly sponsoring vlogs. More specifically, this education-backed and prime-activated advertising literacy has a negative influence on children's eWOM intentions, but only when they morally evaluate the ad tactic as inappropriate. Further, in addition to this adverse effect, it is also found that a positive moral evaluation of brand placement in vlogs directly (and strongly) alters children's attitudes in favor of the ad and the brand.

The article concludes with several implications these findings may have, essentially suggesting that it is in the interest of all parties involved (companies, advertisers, influencers and children in the first place) that any commercial intent is clearly conveyed, and that children's advertising literacy (incl. critical thinking) for covert ad formats is actively stimulated. In particular, it is argued that there is little use for commercial stakeholders to avoid sponsorship disclosure, not only because regulation is becoming stricter, but also because the results indicate that children who feel to have been honestly informed about the presence of advertising are also less likely to feel manipulated, and therefore more prone to tolerate or even appreciate their ads. Moreover, the findings suggest that when children judge the advertising practice to be fair – through moral reasoning that can be fueled by advertising literacy education and triggered with priming – they will also be more prone to positively engage with the ad. And, for the target audience itself, the article only sees benefits from such interventions as they address children's vulnerability to preconscious and unwanted persuasion not through protection (e.g., by shielding them from advertising), but indirectly by empowering them to independently form well-informed consumer evaluations and decisions.

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# **1 CONCEPTUALIZING CHILDREN'S ADVERTISING LITERACY**

## **Abstract**

Advertisers are continuously searching for new ways to persuade children; current methods include fully integrating commercial content into media content, actively engaging children with the commercial content, and increasing the number of commercial messages children are confronted with at one moment in time. This poses a challenge for how children cope with contemporary advertising.

This conceptual article aims to develop a theoretically grounded framework for investigating how children process embedded advertising. More precisely, it sheds light on previous research and conceptualizations of advertising literacy and provides suggestions for future research. The article examines conceptual and methodological issues and discusses the need for research on how to improve children's coping with embedded advertising by emphasizing the value of persuasive intent priming and implementation intentions. To conclude, future research directions are discussed regarding strategies to strengthen children's coping skills and their dispositional advertising literacy (i.e., associative network consisting of cognitive, moral, and affective beliefs related to advertising) and situational advertising literacy (i.e., actual recognition of and critical reflection on advertising).

**Keywords:** Advertising literacy, children, embedded advertising formats, dispositional advertising literacy, situational advertising literacy, implementation intentions, persuasive intent priming, disclosures, parental mediation, training sessions

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## **1.1 Introduction**

Several big companies, including Viacom, Hasbro, Mattel, and JumpStart, were recently fined \$835,000 for the illegal tracking of children's websites (Brandom 2016). Moreover, a recent analysis of 72 websites targeting children revealed that no less than 179 data brokers track children's behaviors (Martijn and Tokmetzis 2016), from which the resulting data are used by advertisers to target children more effectively. This illustrates that advertisers are constantly searching for clever ways to persuade children to buy their products or convince their parents to purchase them. Next to traditional television commercials, advertisers focus heavily on the use of embedded advertising formats, both offline and online. These formats (such as advergames or brand integrations in, for instance, music videos or television shows) are characterized by a more subtle, less intrusive commercial nature. Commercial messages are now integrated in or merged with the media content and interactively engage their users with this commercial content. This has led to both more entertaining and fun advertising practices and more cognitively demanding advertising practices (e.g., simultaneous exposure to multiple

advertisements or to both media and ad content), which distract the users from systematically and critically processing the commercial content (Lee and Faber 2007; Panic, Cauberghe, and De Pelsmacker 2013).

Systematic and elaborate processing of commercial content will occur only when both motivation and ability to process such content are high (Petty and Cacioppo 1986). In that case, individuals will use previously stored knowledge to evaluate the message and formulate positive and negative arguments related to this message. An individual's knowledge of and skills related to persuasion (i.e., advertising literacy in the context of advertising) come into play here. Children's advertising literacy refers to their advertising-related knowledge and skills (i.e., dispositional advertising literacy) and to their ability to recognize and critically reflect on advertising (i.e., situational advertising literacy). More specifically, advertising literacy is assumed to function as a "filter" or "radar," enabling consumers to critically evaluate the persuasion attempt (Friestad and Wright 1994). However, compared to adults, children's advertising literacy is believed to be precariously underdeveloped, which is especially true in the case of the currently used embedded advertising context (An, Jin, and Park 2014; Hudders, Cauberghe, and Panic 2016; Verhellen et al. 2014). While children have limited knowledge about these embedded formats, it is equally important to note that the characteristics of these formats also lower their ability and motivation to recognize the commercial content and reflect critically on it (Nairn and Fine 2008). First, their ability is lowered because commercial messages are now integrated in a media environment with huge amounts of information (i.e., children are simultaneously exposed to media content and commercial messages). This information overload leads to a high cognitive load (which is defined as the total amount of mental resources required to perform a certain task) (Paas and van Merriënboer 1994), which requires a high level of self-regulation for children to focus their attention and distinguish relevant from irrelevant content. As the latter induces depletion of self-regulatory resources, this implies children will have more difficulty critically reflecting on commercial content. Second, their motivation is lowered due to the fun nature of the new advertising formats (e.g., when the commercial message is integrated in fun and exciting games).

This article aims to develop a theoretically grounded framework for investigating how children process embedded advertising to provide guidance for future research. In particular, the article explains the crucial role of dispositional and situational advertising literacy in assisting children to cope with advertising and identifies strategies (using heuristic and automatic processes) that can improve both of these literacies in an embedded advertising context. These strategies involve the learning of skills needed to trigger specific heuristics, which may in turn activate the relevant parts of the associative network (dispositional advertising literacy) to successfully – and, ideally, automatically – apply and use relevant knowledge when confronted with advertising (situational advertising literacy). The article provides several avenues for future research following from the proposed conceptual model, stressing the need to further investigate how automatic mechanisms can be applied to improve children's critical processing of embedded advertising formats. In conclusion, the article reflects on how these mechanisms can be implemented in existing strategies that are currently used to improve children's advertising literacy, namely advertising disclosures, advertising literacy training sessions, and parental mediation strategies.

The focus of this article is children under the age of 16, as this is the age at which youth typically have developed an adult-like processing of advertising (John 1999). However, as 16-year-old children can be (and are) different from six-year-olds when processing advertising, we emphasize possible age differences throughout the article and thoroughly explain the antecedents and consequences of this age effect. In particular, the article deciphers the construct of advertising literacy in light of children's limited cognitive, emotional, and moral abilities.

## **1.2 Understanding how advertising literacy can affect children's processing of embedded advertising: a conceptual model**

### **1.2.1 Children's processing of advertising**

Buijzen, van Reijmersdal, and Owen (2010) developed a framework that explains children's processing of commercial content called the processing of commercialized media content (PCMC) model. In this model, a distinction is made between three types of processing: systematic (high elaboration), heuristic (moderate elaboration), and automatic (low elaboration). According to the PCMC model, level of elaboration will depend on the fit between required and allocated resources to process a persuasive message. High elaboration (and thus systematic processing) will occur only when both allocated and required resources to process a persuasive message are high. In the other cases, heuristic or automatic processing will occur. Heuristic processing implies that people are influenced by simple decision rules (e.g., high price implies high quality) (Gigerenzer 2008).

When automatic processing occurs, individuals are not elaborating the message elements but are seduced by peripheral cues. In this case, persuasion occurs in an implicit and automatic way through affect-based learning mechanisms, such as evaluative conditioning, mere exposure, and preconscious emotional associations induced by fun and entertaining media context (Chartrand 2005; De Houwer, Thomas, and Baeyens 2001; Dijksterhuis et al. 2005; Evans and Park 2015). In fact, the limited capacity model of message processing (Lang 2000) suggests that individuals have only limited resources to process a message and that these resources need to be subdivided into the following three underlying processes of information processing: message encoding, storage, and retrieval. Accordingly, the instances in which a child will process the media content in a systematic way will be limited. Children may protect themselves from subconscious persuasion only by activating their advertising literacy when exposed to advertising. This advertising literacy will counter the affect transfer that occurs between the context and the brand.

However, children's critical processing of advertising messages will be complicated by both the nature of embedded advertising formats and the fact that advertising literacy develops according to age. Before elaborating on ways to stimulate their advertising literacy in an embedded advertising context (see later sections on future research agenda), we propose a conceptual model in which we suggest how advertising literacy should come into play when children are processing embedded advertising messages, and we identify the issues that may arise in this context.

## 1.2.2 Conceptual model of the role of advertising literacy in children's processing of advertising

The proposed conceptual model (see Figure 1) suggests that advertising literacy needs to be triggered when children are exposed to persuasive messages to counterbalance the automatic affective reactions evoked by the fun and entertaining character of current advertising formats (i.e., affect transfer mechanism). Advertising literacy refers to an individual's knowledge, abilities, and skills to cope with advertising (Boush, Friestad, and Rose 1994). Friestad and Wright (1994) differentiate between declarative/factual knowledge, defined as the domain-specific content knowledge (which here is related to market principles), and procedural knowledge, which is defined as knowledge acquired through inferences from existing declarative/factual knowledge regarding how to perform certain activities. Although studies on children's advertising literacy rarely distinguish between both types of knowledge, we follow recent insights in research on children's advertising literacy (Rozendaal, Lapierre, et al. 2011; Waiguny, Nelson, and Terlutter 2014) by explicitly differentiating between dispositional (cf. factual knowledge) and situational (cf. procedural knowledge) advertising literacy.

The model suggests that when children are exposed to embedded advertising, their situational advertising literacy should be activated. This situational advertising literacy refers to the thoughts and actions an individual undertakes in direct anticipation of a persuasive attempt, as well as during or after advertising exposure. More specific, situational advertising literacy refers to (1) the recognition of a persuasive attempt and (2) the critical reflection on this attempt, the former being a prerequisite for the activation of the latter. Critical reflection entails asking questions such as "What persuasive strategies have been used?" and "What impact does this specific strategy have on me?" and "Is this specific strategy appropriate to use?"

Children's critical reflection on the persuasive message they are exposed to will be based on the retrieved cognitive, affective, and moral dispositional knowledge stored in their associative network. This dispositional advertising literacy refers to the associative network, or schemer schema (Wright 1986), of knowledge, skills, and abilities consumers possess regarding persuasion in an advertising context. The associative network theory (Anderson and Bower 1973) approaches the human brain as a network of separate interconnected chunks of information (i.e., nodes). These nodes can either be semantic (i.e., refer to a subject, object, or category) or emotional (i.e., refer to a feeling or emotional state) in nature (Bower 1981). Making an information chunk prominent will automatically trigger the network of interconnected nodes through a network spreading activation process. The stronger the network association, the easier it becomes to retrieve certain information or memories (Keller 1993). In other words, dispositional advertising literacy consists of an entity of information nodes related to advertising that can be activated when confronted with a persuasive attempt (Friestad and Wright 1994). These nodes have cognitive, affective, and moral meanings related to advertising.

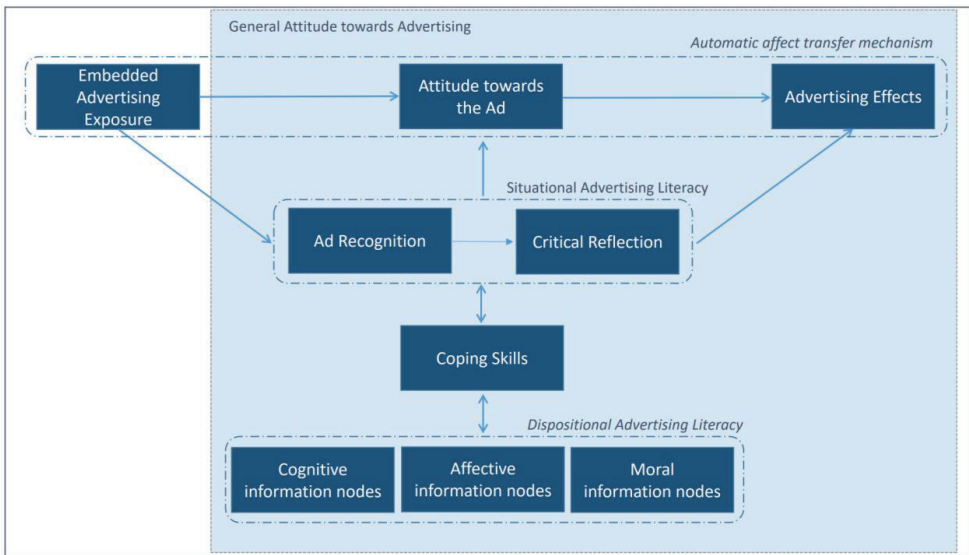
The ease with which children can activate the relevant information nodes of the associative network to critically reflect on the advertising with which they are confronted depends on their coping skills. These coping skills are conceived as the crucial connection between dispositional and situational advertising literacy, or the ability "to recognize, analyze, interpret, evaluate, and remember persuasion attempts and to select and execute coping tactics believed to be effective and appropriate" (Friestad



and Wright 1994, p. 3). These skills determine the extent, speed, and accuracy with which the relevant (cognitive, moral, and affective) information nodes can be activated in the associative network (dispositional) and help individuals activate the matching coping strategy when exposed to a certain ad (situational). Hence, strengthening this facet will make the process of selecting the relevant coping strategy more automatic when being exposed to advertising.

However, extending the associative network related to advertising and learning how to apply it when confronted with advertising requires significant cognitive abilities and skills. Accordingly, evidence suggests that children’s advertising literacy develops according to age (Rozendaal, Buijzen, and Valkenburg 2010; Wright, Friestad, and Boush 2005).

Figure 1-1 Conceptual framework



### 1.2.3 Development of advertising literacy among children

Advertising literacy gradually develops throughout life, evolving from simple to more sophisticated and nuanced beliefs about persuasion (Friestad and Wright 1994). More specifically, this evolution depends on (1) the development of cognitive and social abilities and (2) the socialization of the consumer (John 1999).

Several authors state that advertising literacy encompasses multiple skills concerning memory, cognitive resources, and message processing, which are accumulated during childhood and are referred to as cognitive development (Brucks, Armstrong, and Goldberg 1988; Rozendaal, Lapierre, et al. 2011; Wright, Friestad, and Boush 2005). Executive functioning skills (related to self-regulation, resistance to interference, attention, and working memory) are indispensable in this context (Moses and Baldwin 2005). These abilities enable individuals to exercise adequate control of cognitions, which allows for the critical evaluation of embedded advertising formats. In particular, one needs to be able to control his or her responses, thoughts, and actions to get around the persuasive nature of advertising

and break through the affect transfer mechanism. In addition, one's ability to focus and regulate attention needs to be highly developed, and one also needs sufficient working memory capacity. The latter refers to the fact that individuals should be able to temporarily store information in the working memory that is immediately accessible and can be used upon completion of complex tasks (Rozendaal, Lapierre, et al. 2011). This executive functioning starts to develop during childhood and continues to develop during adolescence (from 12 to 18 years, with a peak in evolution at age 15). This implies that children, who are not yet fully developed, will be less able to control inhibitions and therefore more likely to immediately respond to the perceptually salient and appealing features of a commercial message. Furthermore, because these children have a hard time controlling their attention, they will be less able to shift their attention away from the affect-based components of the message and focus on their advertising literacy. Moreover, children with a low ability to control affect via emotion regulation will more likely be overwhelmed by the emotionally pleasing cues that predominate embedded advertising formats (Rozendaal, Lapierre, et al. 2011).

Concerning information processing, one can distinguish between individuals as "limited processors" (under age 7), "cued processors" (age 7 to 11), and "strategic processors" (age 12 and older) (John 1999). Whereas strategic processors have a set of strategies at their disposal to process information, cued processors need help (by the use of cues or prompts) to initiate this processing, and limited processors have problems successfully processing information in general. Such distinctions, however, are primarily based on Piaget's (1929) classic theory of cognitive development, in which children evolve from "perception-is-reality" thinkers to more complex and abstract thinkers (John 1999). In recent years, academics have called for taking into account the theory of mind (Moses and Baldwin 2005), arguing that children will be able to understand the specific intentions and goals of advertisers (and differences from their own goals) only when they are able to take into account the possible viewpoints of significant others (which generally occurs around age nine).

Perspective-taking ability can be categorized as part of children's social abilities and is also arguably the determining factor in their moral development (Moses and Baldwin 2005). However, in contrast with the extensive documentation on the development of knowledge about advertising's commercial (i.e., selling and persuasive) intent, little is known about how perceptions of tactic appropriateness and deception develop (Moses and Baldwin 2005; Wright, Friestad, and Boush 2005); this is in spite of the fact that Friestad and Wright (1994) provided a clear impetus for further research by citing early studies conducted by Rule, Bisanz, and Kohn (1985) on this topic. These authors claim that children's knowledge about "interpersonal influence tactics" develops together with their understanding of what acceptable social behavior entails. These moral reflections develop, as children grow older, according to the following three stages (based on Kohlberg 1971): (1) learning the concept of self-interest, (2) developing a conception of "relationship," and (3) the emergence of social welfare concepts, referring to tactic appropriateness judged in terms of altruism and moral rightness.

Next to these general processing skills, individuals need domain-specific content knowledge (related to market principles), which can be acquired through "consumer socialization" (Moses and Baldwin 2005), in other words, the "processes by which young people acquire skills, knowledge, and attitudes relevant to their functioning as consumers in the marketplace" (Ward 1974, p. 2). This socialization refers to trial-and-error processes in coping with persuasive attempts (Friestad and Wright

1994) and with advertising in particular. According to John (1999), it is a developmental process that consists of three stages: the perceptual (age three to seven years), analytical (age 7 to 11 years), and reflective (age 11 to 16 years) stages. Only when children reach the analytical stage are they considered to be fully able to recognize commercial messages and to critically reflect upon such messages (for a complete overview, see John 1999, p. 204).

In other words, an individual's experience with the persuasive attempts he or she faces in daily life will greatly determine his or her development of advertising literacy. In particular, these situations help people better understand how persuasion works and which techniques are used to persuade individuals. Advertising literacy is also influenced by the alternation of roles one takes (e.g., in certain situations one is the agent who tries to influence a target, while in others one is the target who is influenced by an agent) (Friestad and Wright 1994). Next to these individual experiences, people are influenced by their perception of how others (e.g., parents, peers, media) cope with advertising (Friestad and Wright 1994) and by the values and norms that reside in the culture in which they live.

Ultimately, these socialization processes help build people's associative network (i.e., dispositional advertising literacy) and improve their coping skills. The maturation of cognitive and social abilities, in turn, facilitates the development of such advertising knowledge and skills (and thus how much one learns from socialization); it is thus a bidirectional process (Moses and Baldwin 2005). In addition, these processes imply that actual coping skills will become increasingly refined, accurate, and automatic throughout an individual's life (Friestad and Wright 1994). As a result, the simple if-then rules will be replaced by progressively complex, abstract, and refined coping tactics (Friestad and Wright 1994). These complex coping tactics, in turn, make it increasingly easier for individuals to cope with persuasive attempts, as they decrease the cognitive effort needed to recognize and reflect on persuasive attempts and to decide how to cope with them. As such, through the transition process in abilities and experience (which is slow and develops based on continuing practice), coping becomes a more automatic process.

It seems reasonable to conclude that, as the road toward effective coping with advertising is clearly a long and laborious one, children's advertising literacy remains underdeveloped. On top of that, the context of embedded advertising makes it even more difficult for children to reflect critically on advertising and build an appropriate associative network. The issues that may arise when children are exposed to embedded advertising are elaborated upon in the sections that follow, according to the different facets within the advertising literacy construct.

## **1.3 Unraveling the dimensions of advertising literacy in the context of embedded advertising**

### **1.3.1 Dispositional advertising literacy**

First and foremost, children need a comprehensive associative network related to advertising that they can address when confronted with embedded advertising. The proposed model suggests this associative network consists of information nodes entailing cognitive, moral, and affective associations related to advertising.

Since the 1970s, advertising literacy has mainly been approached from a cognitive perspective (for an overview, see Wright, Friestad, and Boush 2005). In particular, the cognitive components of advertising literacy have been operationalized as the ability to recognize advertising, to understand its selling intent (i.e., to convince people to buy the advertised product) and persuasive intent (i.e., to implicitly or indirectly influence consumers' behavior by altering their mental states), and to understand its persuasive tactics (i.e., to see through the specific techniques that are used to promote the advertised product). In the literature, at least two additional cognitive components can be identified that are operationalized less frequently, namely the ability to recognize the source of advertising (i.e., knowing who pays for the ad) and to identify the audiences an advertisement is targeted toward (i.e., understanding the principles of customer segmentation).

However, next to this cognitive component, a moral dimension should be distinguished. Moral advertising literacy reflects individuals' ability to develop thoughts about the moral appropriateness of specific advertising formats and comprises the general moral evaluations individuals hold toward these formats (e.g., advergaming, brand placement, or TV commercials) and toward advertising in general, including its persuasive tactics (e.g., humor or celebrity endorsements, using personal data to customize commercial messages). This dimension is deeply intertwined with the ability to notice when advertising is biased (e.g., when advertising makes products seem better than they are in reality) or does not tell the truth (referred to as skepticism by Rozendaal, Oprea, and Buijzen 2016). While this dimension has not yet explicitly been integrated in recent literature about children's advertising literacy, Friestad and Wright (1994) emphasized its importance in their seminal persuasion knowledge paper, where they addressed the necessity of including beliefs about the appropriateness of marketers' tactics in the persuasion knowledge construct. The nature of an individual's moral dispositions toward advertising also depends on his or her incorporation of the prevailing values and norms in society. This can be illustrated by Lee, Sung, and Choi's (2011) finding that Korean adolescents perceive product placement as more unethical and misleading than U.S. young adults do. Another reason why the societal or cultural component might impact an individual's moral dimension of advertising literacy is reflected by the differences in governance and regulation in advertising across countries. While in some countries advertising targeting children is subject to several restrictions, in other countries the legislation and national (self-)regulatory framework is more lax (Gunter, Oates, and Blades 2005), which might implicitly impact consumers' perceptions of the appropriateness of advertising. The ability to evaluate advertising in a moral manner and the possession of a set of moral dispositions toward advertising and its various techniques is more relevant than ever, considering the fact that the bulk of nontraditional advertising formats can in many cases be described as covert marketing.

A third component of dispositional advertising literacy is the affective or attitudinal dimension of advertising literacy, as recently proposed by Rozendaal, Lapierre, et al. (2011) and Rozendaal, Oprea, and Buijzen (2016). Essential to this concept is the authors' emphasis on the importance of emotion regulation to counterbalance the affective reactions evoked by the persuasive messages. However, it should be noted that they did not address the knowledge and skills required to regulate these emotions. In particular, to be capable of suppressing and regulating emotional reactions, one should be aware and conscious of them. Rozendaal, Lapierre, et al. (2011) and Rozendaal, Oprea, and Buijzen (2016) suggest that children have difficulties to regulate their emotions. Therefore, the authors define affective

advertising literacy in terms of advertising disliking. However, we focus on the importance of the emotional awareness among children, as we believe it is important to do so before we can expect children to regulate these emotions. When individuals have insights into the working of fear, humor, sex, warmth appeals, and so on, they might be able to detect the emotional reactions evoked by these appeals, allowing them to regulate these emotions better. Furthermore, when individuals have insights into the working of embedded advertising formats, for example, product placements relying on affect transfer mechanisms, they may be empowered to detect the persuasive impact on the moment of exposure. Similarly, for advergames, knowledge about the impact of this fun and interactive advertising format might increase the critical, situational processing of the persuasive message.

However, due to the nature of embedded advertising formats and their rapid evolution, children have only a limited associative network of attitudes and beliefs related to these formats and may experience difficulty applying them when confronted with embedded persuasive attempts. Preliminary research already suggests that dispositional advertising literacy is underdeveloped for the embedded advertising formats among children (e.g., Hudders, Cauberghe, and Panic 2016; Panic, Cauberghe, and De Pelsmacker 2013; Rozendaal et al. 2013; Verhellen et al. 2014). In particular, the expanded goals of embedded advertising formats are new to most people, implying that consumers are often left in the dark when it comes to knowledge about the commercial intent (e.g., electronic word of mouth encourages consumers to share the ad with friends, hence taking an active role in the commercial process without being aware of it). Furthermore, because embedded formats usually do not disrupt media content, they are not likely to be perceived as advertising in the first place, which makes it difficult to develop a network of attitudes and beliefs related to advertising. Even if they recognize the advertising as such, children are likely to experience difficulties with disentangling their feelings and emotions toward the commercial content from those related to the media content. Moreover, although the embedded formats may raise more issues concerning fairness and appropriateness given their covert nature, children are less likely to have moral doubts about these practices because they lack an understanding of the tactics used and are overwhelmed by the entertaining nature of the tactics.

### **1.3.2 Situational advertising literacy**

Next to building an extensive associative network related to advertising, children also need to apply this knowledge when confronted with advertising to be able to critically reflect on it. In this regard, Moses and Baldwin (2005) emphasize the recognition of the persuasive attempt as the first precondition to activate critical processing of advertising. More specifically, recognizing an agent's action as a persuasion tactic will trigger the "change-of-meaning" process (Friestad and Wright 1994). If consumers become aware of the possible usage of a persuasive tactic, then the change of meaning may lead consumers to "disengage" from the interaction with the agent (advertiser). This disengagement allows them to evaluate the tactics used in the advertisement (e.g., to make an assessment of the appropriateness of the tactic).

For this critical processing, children will rely on their dispositional advertising literacy by retrieving and activating the relevant (cognitive, affective, and moral) information nodes within the associative network (Evans and Park 2015), which will then be used to make a critical assessment of the tactic, and ultimately, of the advertisement. However, even if children have the required advertising

knowledge, it does not necessarily follow that they will actually retrieve this knowledge when confronted with advertising. In this context, Moses and Baldwin (2005) refer to the “competence-performance” distinction, which relates to the fact that while one may be (theoretically) capable (i.e., have the knowledge and competence) to apply advertising literacy, one may have difficulties actually doing so (i.e., performance). In other words, children need a “stop-and-think” response, as they are required to shift their attention away from the advertisement (i.e., stop) and then actively process it and think about a cognitive script to help them cope with the advertisement. However, the subtle nature of embedded advertising increases the difficulty for young children to perform these stop-and-think or critical processing activities to a sufficient level at the actual time of exposure (Buijzen, van Reijmersdal, and Owen 2010). In particular, this stop-and-think mechanism would not only imply that children would miss (part of) the media content, as the recognition of embedded advertising is also difficult for children given the integration of commercial messages in the media content and the fun and engaging nature of these advertising formats. Even if children overcome the difficulties in recognizing advertising, the critical reflection might be overshadowed by the fun character of the commercial content and some attractive benefits, which can increase the personal relevancy accompanying some of these tactics. For instance, people’s possible opposition toward the data collection practices of advertisers is often breached through incentives (e.g., free games, cool gadgets) that are hard to resist (especially for minors) (Earp and Baumer 2003). Accordingly, critical reflections are less likely to be induced.

It is also important to consider the probability that children may activate parts of their associative network that are less pertinent in the case of being exposed to embedded advertising. For instance, Evans and Park (2015) argue that embedded advertising may not be recognized as such and that non-advertising schema will be triggered accordingly. Consequently, the advertisement will be processed as regular media content and no critical processing will occur. For instance, an advergame will most likely be processed as a game and not as an advertisement.

The critical reflection implies that individuals evaluate different aspects of the advertisement by asking themselves questions concerning (1) the persuasive strategies that have been used and their persuasive intent; (2) the emotional impact that these specific strategies can have; and (3) the appropriateness and fairness of the specific tactic used. Based on the outcome of this reflection, consumers may form new or refine existing attitudes toward the advertisement, advertiser (or brand), and advertised product (or topic). Depending on the situation (e.g., cognitive load or timing) and the individual (e.g., expertise, level of dispositional advertising literacy), different coping strategies will be used (Friestad and Wright 1994). When consumers have gained certain expertise in coping with persuasive messages, they can apply more advanced, specialized strategies (e.g., making qualified judgments about the ad and its usefulness in their decision-making process) compared to inexperienced consumers who will use simple rules (e.g., generalizations or ad avoidance).

Once an act performed by an agent is construed as a tactic, several types of effects may occur, which can correct the affect transfer mechanism. Importantly, situational advertising literacy can affect the direct impact of the attitude toward the advertisement or the attitude toward the brand either positively or negatively. On the one hand, the change-of-meaning process may lead to more defensive reactions, in other words, a general “detachment” effect may occur, which can happen when the thoughts about the persuasive intentions totally disrupt any other preceding brand- or product-related

processing. In this scenario, the consumer becomes conscious that the agent sees him or her as a person on whom persuasion tactics can be applied, which is assumed to be experienced as “fundamentally off-putting” (Friestad and Wright 1994). The persuasion knowledge model does not elaborate on what is meant by “off-putting,” yet we believe that reactance theory might provide an explanation. Simply put, reactance theory (Brehm 1989) implies that when individuals realize that they are subject to a persuasion attempt, they will perceive it as a threat to their autonomy and freedom of choice. In other words, people generally dislike being persuaded because they want to be free to make their own decisions. This may lead the consumer to discount not only the persuasion agent but also the advertising message itself (for an overview of consumers’ resistance strategies, see Fransen et al. 2015). However, following Evans and Park (2015), the outcome of this process may still be positive if the negative effect of situational advertising literacy on the advertising effects is smaller than the positive effect of the affect transfer of the media context. This may be especially the case with embedded formats (Evans and Park 2015). In addition, and although past studies mainly approached individuals’ coping strategies as mitigating the persuasive impact of commercial messages, Friestad and Wright (1994) stressed that the outcome of the critical reflection should not be negative per se. For instance, as consumers reflect on a marketer’s tactic in a specific advertisement, they may come to the conclusion that no deception is at play. Consumers may even embrace persuasion attempts as a form of inventive entertainment, as a valuable source of information about products and services, or as a way to fuel the economy and to lower the costs of media use (Briñol, Rucker, and Petty 2015). Accordingly, this may strengthen the positive path of the affect transfer and result in an even more positive attitude toward the brand.

### **1.3.3 Coping skills: the link between dispositional and situational advertising literacy**

Coping skills refer to the crucial link between the knowledge stored in the associative network and the activation of this knowledge when being exposed to a specific ad. Coping skills can be strengthened in two ways: by extending the associative network and by teaching individuals how to trigger the relevant nodes from this information network. More specifically, an individual’s coping skills will be increased by developing cognitive emotion regulation and social skills, and by socialization and experience, referring to trial-and-error processes in coping with persuasive attempts (Friestad and Wright 1994). Friestad and Wright (1994) stress the importance of practice: when people recognize advertising as such, their responses may vary considerably during consecutive exposures to a particular advertising tactic. However, these responses will begin to stabilize as they apply (what they believe to be) the most appropriate heuristic.

However, because everyday life is already saturated with advertising, advertisers have come up with new ways to promote the same advertising message through different techniques, which is possible due to the enormous potential of digital media. This evolution implies, paradoxically, that experience with advertising is becoming less instructive. In the case of, for example, traditional TV advertising, where commercials are neatly packaged in blocks that clearly separate them from the surrounding media content and are repeated several times a day, people can more easily learn by being

exposed to the same type of advertising tactic in a short period of time. In addition, by comparing ads with neighboring ads, one can learn the various enactments of a general tactic, allowing them to try on several coping strategies until convergence is reached and the best coping strategy can be selected. Embedded advertising formats, on the other hand, are of such a diverse and fleeting nature that the probability of encountering a similar, known tactic in a short time range has lowered significantly. This prevents people from developing more complex and abstract (and thus generalizable) coping strategies about specific advertising tactics.

### **1.3.4 Attitude toward advertising in general and toward specific advertising formats**

To conclude, the model takes into account children's attitude toward advertising in general and toward specific advertising formats. This construct can be described as a general set of affective attitudes (in terms of disliking but also, as we like to emphasize, liking) consisting of an implicitly "learned" set of norms and values related to the affective evaluation of advertising (formats).

Although the concept has been recognized in previous advertising studies (Rozendaal, Lapierre, et al. 2011; Rozendaal, Oprea, and Buijzen 2016), it was approached as a dimension of advertising literacy. However, defining affective attitudes as a form of "literacy" gives rise to questions, as they do not reflect an individual's possession of insights, knowledge, facts, or information about advertising tactics (though they can be the consequence of such tactics). In addition, previous studies define the attitudinal advertising literacy dimension in terms of advertising (dis)liking, which implies a clear direction (i.e., liking versus disliking). However, in line with the persuasion knowledge model, the present conceptual model claims that the outcome of the critical processing of the persuasive message can be either positive or negative depending on the evaluation of advertising tactics. Nonetheless, we do acknowledge the importance of these general attitudes toward advertising in influencing the overall processing of persuasive messages and the different dimensions of advertising literacy. In particular, a negative disposition toward advertising may lead to more 'vigilance' which should facilitate ad recognition, hence allowing for critical and elaborate processing. On the other hand, a neutral or positive stance could also keep the door open for analytical processing that would not be possible when the ad was automatically rejected through evoking negative attitudes.

It is important to make a distinction between these more general affective attitudes toward advertising (formats) and the attitude consumers hold toward a specific advertising message. The attitude toward the advertisement is a very specific situational affective reaction, which is often automatically influenced (see PCMC; Buijzen, van Reijmersdal, and Owen 2010) by peripheral cues (e.g., those that make the advertisement fun). The general attitude toward advertising (formats), by contrast, is more of an overall evaluation of persuasive and commercial content and is not based on the situational exposure to one specific persuasive message and the brand it promotes or the tactic it uses.

Accordingly, when exposed to a certain advertising message, this implies the possibility of maintaining several sets of affective attitudes that diverge in valence (Briñol, Rucker, and Petty 2015). For instance, individuals may dislike advertising in general but at the same time may feel positively



toward brand placement in movies. Furthermore, they may have a positive attitude toward advertising in general but hold a negative attitude toward a specific advertisement.

In sum, these difficulties in recognizing and critically reflecting on embedded advertising formats, combined with the fact that the consumer socialization process (by which they learn from exposure to these formats) evolves slowly, call for new ways to increase children's advertising literacy.

## **1.4 How children cope with advertising: a research agenda**

The current article provides guidance for future research and sets out a number of avenues to improve children's coping with advertising by shedding light on the crucial role of advertising literacy.

To start with, possible research suggestions related to the proposed model are discussed, followed by the proposition of two strategies that may increase children's critical processing of embedded advertising formats. To conclude, this article reflects on how these strategies can be implemented in existing strategies that are currently used to improve children's advertising literacy, namely advertising literacy training sessions, parental mediation strategies, and advertising disclosures. The proposed research directions are based on a thorough review of the existing literature. In the Appendix, an overview can be found of this previous research, which is linked to the different parts of the future research directions section. In addition, an overview is given of the various future research directions related to the proposed model (Table 1), to automatic processes (Table 2), and to tactics to improve advertising literacy (Table 3).

### **1.4.1 Future research suggestions related to the proposed model**

#### **1.4.1.1 Testing the different paths in the proposed model**

*The impact of the strength of the affect transfer mechanism.* For now, it remains unclear how and to what extent advertising literacy can correct the affect transfer mechanism, of which the outcome can be either positive or negative. When children like the ad very much, the positive feelings evoked by the ad may be transferred to the brand. In contrast, when children are irritated by the ad and dislike it, the negative feeling that is aroused by this ad may be transferred to the brand. Previous research suggests that knowledge of persuasion can negatively correct this affect transfer mechanism by triggering reactance, as individuals do not like the feeling of being persuaded because it threatens their freedom. However, a fair and nicely executed advertisement can also result in a positive judgment. Both the valence and the strength of the affect transfer and the judgment (the outcome of the critical reflection process) will determine whether the outcome is positive or negative. In addition, the general attitude children hold toward advertising should be examined in this respect as it might strengthen or attenuate this process.

Table 1-1 Future research suggestions related to the proposed model

Future research direction	Research questions
<b>Testing the different paths of the proposed model</b>	How do children evaluate embedded advertising?
	How are the cognitive, affective, and moral information nodes affecting critical reflection, and how are they interrelated?
	How do typical ad characteristics affect how children critically reflect on advertising and how they cope with advertising?
	How does this critical reflection affect the advertising outcomes?
	How important is dispositional advertising literacy in improving children's situational advertising literacy?
	Which coping skills are most important to improve situational advertising literacy?
	When does advertising literacy have a positive, negative, or neutral impact on advertising effects?
	When can the valence of the affect transfer mechanism affect the impact of children's advertising literacy?
	How do children cope with advertising? Which coping strategies are they using? Are the strategies dependent on the age of the child?
	How does attitude toward advertising affect children's critical processing?
<b>Methodological issues</b>	How to measure dispositional versus situational advertising literacy?
	How to measure advertising recognition and critical reflection (situational advertising literacy)?
	How to measure cognitive, affective, and moral dispositional advertising literacy?
	How to measure the coping skills?
	When to measure advertising literacy?
	How to adapt the measurement instrument according to age?
	How to adapt the measurement instrument according to ad format?
<b>Moderating impact of development, ad format, product category</b>	How does age affect how children critically reflect on advertising?
	To what extent and how are embedded advertising formats different from one another in terms of cognitive load?
	Does advertising literacy work differently depending on the product and type of brand?

*Understanding children's situational advertising literacy.* When empirically investigating the role of children's advertising literacy in coping with embedded advertising, future research should first determine how critical reflection is formed. Coping can range from very simple strategies, such as advertising avoidance, to complex and sophisticated strategies involving critical thinking. Accordingly, it is crucial to investigate whether and from what age children are able to form well-substantiated evaluations of advertising, and for which children and in which circumstances (e.g., depending on the demanding nature of the advertising format) simple strategies (e.g., advertising avoidance) are more effective. According to Friestad and Wright (1994), people should first develop if-then rules related to tactic recognition to identify generic ad tactics (e.g., "If a product appears in a movie, then it may be brand placement"), then related to effectiveness (e.g., "If the movie is funny, this feeling may easily transfer to the placed brand"), and then related to appropriateness (e.g., "If the movie makers do not

disclose the presence of brand placement, then it is deceptive”). Naturally, it is important to first investigate which rules (and their content) are most effective, depending on the developmental stages of children.

*The role of the different dimensions of dispositional advertising literacy.* Currently, there is no research on how the different types of information nodes (cognitive, affective, and moral) interact in forming the critical reflection situationally; nor are there any insights available regarding which information nodes can directly affect the advertising effects. For instance, both cognitive and affective advertising literacy may be necessary to understand how advertising can affect people. That is, the former helps children understand the intent of advertising, while the latter helps them be aware of and regulate the potential affective reactions they might have, for example, by consciously determining the extent to which they go along with the emotional appeals in the noncommercial content containing brand placement. However, it may be moral advertising literacy (i.e., for evaluating the appropriateness of the brand placement tactic in a specific situation or condition, for instance, disclosed versus not disclosed or directed to adults versus directed to children) that ultimately determines whether this cognitive and affective advertising literacy positively or negatively affects the advertising effects (e.g., adjusting the attitude toward the placed brand, buying the advertised product). For instance, studies could hypothesize that recognizing and understanding an advergame will diminish advertising effects if children judge it as unfair to subconsciously persuade children by transferring positive affect from the game to the brand; and conversely (and importantly), that this cognitive advertising literacy will enhance advertising effects if children like the advertisement and/or judge the used tactic as appropriate.

#### **1.4.1.2 Measurement issues related to the proposed model**

In line with Waiguny, Nelson, and Terlutter (2014), the current article made a clear distinction between children’s dispositional and situational advertising literacy. A review of the empirical literature on advertising literacy, however, reveals that this concept is measured on both dispositional and situational levels, mostly without giving any reason for the level of choice and without describing possible implications.

Most studies measure only situational advertising literacy, for example, by assessing children’s recognition and understanding of the commercial source and/or intent of a specific advertisement (see, e.g., An and Stern 2011; Rozendaal, Buijzen, and Valkenburg 2010; Rozendaal et al. 2013; van Reijmersdal, Rozendaal, and Buijzen 2012; Verhellen et al. 2014). Only a few studies focus on dispositional advertising literacy, for example, by asking children, “Do you think companies actually use [tactic name] to get you to notice, learn about, or buy their products?” (Freeman and Shapiro 2014) or by asking them very generally “What is a television commercial?” or “Why are commercials shown on television?” or “What do commercials try to do?” (Faber, Perloff, and Hawkins 1982).

Remarkably, some studies use such dispositional measures to assess children’s coping with an advertisement after exposure. Buijzen (2007), for instance, exposed children to a compilation of six toy commercials, afterward measuring general items such as selling intent (“Do you think commercials try to sell things to people?”) and persuasive intent (“Do you think commercials use special tricks to make the toys look better than they really are?”). Similarly, Carter et al. (2011) measured children’s advertising literacy (after making them watch a television advertisement) simply by asking them the

following open-ended question: "What are ads on TV for?" In these studies, it is not clear to what extent children have applied the measured advertising literacy to the actual persuasive situation.

More conceptual and methodological confusion is at issue when we notice that many studies use situational and dispositional measurements interchangeably, often within one general scale for advertising literacy. In their Advertising Literacy Scale for Children, for instance, Rozendaal, Oprea, and Buijzen (2016) measure both situational advertising literacy (recognition of advertising, its source, and one's perception of the intended audience, after being exposed to a specific advertisement) and dispositional advertising literacy (such as understanding the selling intent, persuasive intent, and tactics of advertising in general). Similarly, Grohs, Wagner, and Steiner (2012) exposed children to several expressions of sponsorship, afterward measuring brand recognition in these examples (situational), followed by general dispositional measurements of selling intent ("Companies show their logos on facilities to make visitors purchase their products") and persuasive intent ("Companies pay to show their logos on facilities").

In sum, this overview leads us to the conclusion that situational and dispositional advertising literacy are two concepts that have often been entwined and used interchangeably in the past, leading to substantively different advertising literacy measurements and thus potentially different results. Therefore, we need thorough, methodological research that brings the existing scales together and analyzes them to develop and test adequate scales that measure (and distinguish between dispositional and situational) advertising literacy. Further, more attention should be given to how the different dimensions of dispositional advertising literacy can be measured.

#### **1.4.1.3 Moderating variables of the proposed model**

*The moderating impact of children's development.* Future research could investigate whether and how the proposed conceptual model applies to children in different age categories. It can be expected that among the children in the perceptual stage, affective and moral advertising literacy is underdeveloped or not applied. This implies that the recognition of advertising may actually enhance advertising effects, as it stimulates attention to the advertised brands or products and does not involve corrective affective or moral evaluations. Among the children in the analytical phase, affective advertising literacy is probably better developed, yet moral advertising literacy may still be premature. This could imply that these children are more likely to show reactance: their suppressed emotional reactions may give rise to feelings of disliking to be persuaded (as this persuasion threatens their freedom), consequently diminishing ad effects. Or, perhaps more likely in the context of the fun and immersive advertising formats directed at children, they will consciously choose to go with the flow of, for example, the advergame, allowing for positive affect transfer to happen. Regarding the children in the reflective stage, their adult-like cognitive capacities may allow for the functioning of the "full model," including moral and affective advertising literacy. However, as research on children's moral advertising literacy is nonexistent, future studies should first delve deeper into how these children judge embedded advertising and identify the reasoning strategies that underlie these judgments. More specifically, it is important to find out whether children are aware of these tactics, know how they function, and understand what psychological states they attempt to bring about (e.g., positive affect transfer). This

knowledge is essential to arrive at well-substantiated moral evaluations of advertising, which consumers need to form “valid” attitudes about brands or products (Friestad and Wright 1994).

*The moderating impact of different embedded ad formats.* Future research should investigate to what extent the application of advertising literacy depends on how cognitively and emotionally depleting the advertising format is. Depletion may affect the ease with which children can recognize the formats as well as the cognitive resources they have left to process these advertisements and critically reflect on them. In addition, the impact of the different dimensions in the critical process may also depend upon the advertising format that one is exposed to. For instance, the appropriateness dimension could be more important in the final judgment for an advergame than for a website banner.

*The moderating impact of product category /brand likeability.* Another defining aspect that should be incorporated in further studies is children’s (pre-existing) attitude toward the advertised brand and/or product category in general. Although this cannot be considered as an advertising literacy dimension, a negative attitude in this regard may cause (even moral advertising literate) children to directly dismiss an advertisement when recognized as such. In this context, it could be worthwhile to more carefully consider the products or brands children are exposed to in studies. It is conceivable that in the case of advertising for a brand or product (category) that is highly salient for children (e.g., toys), cognitive advertising literacy may strengthen susceptibility to persuasion by activating schemas of liking, desiring, and possessing (van Reijmersdal, Rozendaal, and Buijzen 2015). Conversely, in the case of a low-salient brand or product (category), children may be more (or perhaps less) inclined to fully apply their advertising literacies, including critical processing.

## **1.4.2 Future research suggestions related to automatic processing of advertising**

The current article suggests the use of strategies that can stimulate children’s coping skills via cognitively less demanding, automatic processes. Specifically, we argue that combining persuasive intent priming (Fransen and Fennis 2014) with implementation intentions (Gollwitzer 1999) may be the most beneficial strategy to improve children’s coping with embedded advertising. It is expected that persuasive intent priming can help children automatically activate their associative network related to advertising, resulting in an increased ability to recognize an ad and its persuasive intent. In addition, it is expected that implementation intentions can subsequently help children critically reflect on advertising messages by relying on simple and low-demanding if–then heuristics. Further research should examine the potential of these strategies to increase children’s critical reflections toward embedded advertising in greater depth.

### **1.4.2.1 Persuasive intent priming to activate children’s coping state**

The persuasive intent priming strategy, as proposed by Fransen and Fennis (2014), consists of automatically and preconsciously activating the concept of persuasive intent. The priming strategy operates through the simple act of reminding people of a situation in which someone tried to influence their behavior (without explicitly referencing the advertising it precedes). This activates the associative network regarding persuasion, which may affect subsequent coping with persuasive attempts. Using

an experimental design, Fransen and Fennis (2014) demonstrated that this implicit priming strategy is not only equally effective as a traditional, explicit forewarning strategy in reducing the influence of heuristic cues used by advertisers (e.g., assuming that when a celebrity uses a product, it must be good) but that it also requires fewer cognitive resources. More specifically, individuals who were asked to recall and write down a situation in which they were subject to a persuasion attempt, prior to being exposed to advertising, judged the advertising to be less convincing, reliable, and effective (while using fewer cognitive resources compared to the traditional forewarning strategy). These results make this priming strategy sound auspicious in the light of activating children’s advertising coping mechanisms.

*Table 1-2 Future research suggestions related to automatic processes when reflecting on advertising*

Future research direction	Research questions
<b>Automatic processes</b>	How can persuasive intent priming be used to help children cope with embedded advertising?
	How can implementation intentions (if–then heuristics) be used to help children cope with embedded advertising?
	Which implementation intentions can be used by children to evaluate advertising?
	Are the implementation intentions different depending on the developmental stages of the children?
	How many if-then heuristics can children apply when processing advertising?

It has to be noted, however, that Fransen and Fennis (2014) executed the priming immediately before advertising exposure. Therefore, it is not known if priming wears out after a specific amount of time. It seems unlikely, though, that a single priming session will affect the processing of each subsequent advertising exposure. As it is undesirable and unrealistic to prime individuals by having them recall and write down an experienced persuasive attempt before each advertisement they are confronted with, we suggest using an advertising disclosure that triggers the persuasive intent priming, which can be learned in school. Usually, an advertising disclosure helps the individual recognize the commercial content, as it indicates that this content is advertising, sponsored content, or product placement. This is different from persuasive intent priming, as this refers to the act of reminding an individual of a past persuasive attempt, thereby triggering the information nodes related to persuasion and helping them cope with subsequent persuasive attempts. The current article, however, suggests combining both approaches, making the advertising disclosure also trigger the right information nodes necessary to reflect deeper on an ad’s persuasive intent.

In school, children will need to learn to connect the disclosure to the recall of persuasive attempts they experienced in the past. In an educational package, for instance, exercises can be included in which children learn to recall and write down situations in which they were persuaded. The precondition is that the recognition cue is linked to these exercises so that the coupling will become automatic. By doing so, this association will later be activated when children only see the advertising recognition cue, thereby reducing the required cognitive load. We expect this strategy to be primarily effective for children in the analytical stage (age seven and older; i.e., “cued processors”) (John 1999), as from this stage onward children are able to activate stored knowledge from memory and use it to

process advertising when triggered by a cue or prompt. Given that the advertising recognition cue activates the related information nodes in the associative network, the commercial message should be recognized and its persuasive intent understood with greater ease. The cognitive resources that remain unaddressed may then be used to further process the ad in a critical manner. However, these critical thoughts themselves may also need to be stimulated, and allowed to occur with a minimum of mental efforts – which could be achieved using implementation intentions.

#### **1.4.2.2 Implementation intentions as automatic, simple if–then heuristics**

While we acknowledge that experience and practice are crucial in developing advertising literacy, we believe that, in the present-day context of rapidly evolving advertising formats, it is necessary to develop interventions to assist children more actively and to accelerate this learning process. Therefore, it is imperative to dig deeper in the literature on “implementation intentions” (Gollwitzer 1999), as it elaborates on the if–then heuristics advanced by Friestad and Wright (1994) in the context of marketplace persuasion. Using implementation intentions has proven to be utterly effective in goal attainment by predetermining specific goal-directed responses to anticipated cues or critical events that may occur in the future (i.e., opportunities for goal attainment), often expressed by “If situation X occurs, then I will respond in this way (that is conducive to reach my goal)” (Gollwitzer 1999). Although research on the effect of implementation intentions on children’s advertising coping skills is still scarce, the first results are promising. A preliminary study by Rozendaal and Anschütz (2015) showed that forming implementation intentions related to using advertising avoidance strategies decreased eight- to 12-year-old children’s advertising susceptibility. More specifically, children who had formed an implementation intention (e.g., “If I see an ad, then I ignore that ad”) prior to viewing a television commercial were less likely to choose the advertised product than those who did not form the intention. In addition, Mau and colleagues (2015) investigated the impact of implementation intentions on the delay of gratification in children. They found that forming an implementation intention supported seven-year-old children in goal attainment and shielded the attention from distracting cues, such as attractive marketing stimuli.

Implementation intentions seem particularly relevant for the goal of coping with embedded advertising. In particular, a great deal of the embedded formats count on persuasion through automatic processes that bypass critical thinking by heavily relying on cognitive depletion through immersive advertising tactics. Implementation intentions are expected to use a similar path, in that they should establish an automatic connection between cues/future situations and specific goal-directed behaviors, which may in turn automatically lead to the ultimate goal of successfully coping with advertising, while using fewer cognitive resources (Gollwitzer 1999).

More specifically, it is assumed that forming a concrete plan about how to act in a future situation leads to a mental representation of that situation, thereby activating the associative network that guides and improves perception, attention, and memory when the anticipated situation actually arises. The heightened salience of the “if” should then result in an automatic and effective implementation of the “then” in an undeliberated, subconscious, and effortless manner. Moreover, this automation implies that possible distractions that could impede goal attainment are efficiently avoided (Gollwitzer 1999). This is particularly relevant in the context of advertising, as the bulk of embedded

advertising formats are characterized by distracting tactics (to circumvent critical advertising processing). In line with the implementation intention literature, the proposed if–then reasoning implies that when children are confronted with a commercial message, they will automatically intend to behave in a critical manner by using different heuristics.

Applying implementation intentions can be expected to augment situational advertising literacy. In particular, when these heuristics are adequately learned, they may easily be retrieved to activate advertising-related knowledge, even when individuals have a limited motivation or capability to allocate cognitive resources to the processing of the advertising message. This is because these heuristics are based on the noticing of a limited amount of features of a persuasion attempt (e.g., if you see an advertising cue, you are confronted with advertising).

Given the changes in the current advertising context, researchers should acknowledge the increasing relevance of using the “appropriateness heuristic,” which should make children think critically about the fairness of the advertising message they are exposed to (e.g., “If I notice a brand/commercial message, I wonder whether the used strategy is appropriate” or “If an actor in a movie uses products with their brand directed toward the camera without mentioning the product placement, then an advertiser wants to influence me in an inappropriate way”). The appropriateness of a certain advertising message can be evaluated on different dimensions, such as related to the use of a certain format or related to the use of concrete tactics.

In addition to extending children’s associative network through educating them about specific persuasive tactics and the heuristics that may be applied to them, there are at least two reasons why it is also necessary for them to engage in repetitive experience and practice. First, it is only through these processes that dispositional advertising literacy can be translated into situational advertising literacy, and that the skill to perform this transformation can be improved (Bruning, Schraw, and Norby 2010), leading to more complex and adaptive heuristics. Second, this application can be implemented more deeply and extensively after one is exposed to advertising. Of course, repetition, rehearsal, and practice in applying the relevant (appropriateness) heuristics take time. Further research is necessary to investigate the most effective strategy and its implementation. In particular, we suggest that existing interventions, such as advertising disclosures, training sessions, and parental mediation strategies, should incorporate these strategies.

### **1.4.3 Future research suggestions on how to improve advertising literacy**

#### **1.4.3.1 Advertising disclosures**

Children need help to recognize a persuasive attempt, for example, by the use of a disclosure (John 1999). A disclosure can take various forms, such as an advertising break on television or a disclaimer identifying the presence of commercial content on a website or in a game (An and Stern 2011). Whatever the form, the purpose of the disclosure is (1) to help children recognize the commercial content and (2) to disclose its persuasive intent. Remarkably, however, in the past decade only four studies have investigated the effects of warning cues on children’s advertising literacy (see online appendix).



The question thus arises regarding how such a disclosure should be designed (e.g., visual/auditory, color, message) for triggering children's advertising literacy most effectively when they are exposed to advertising. In the case of traditional advertising, Rozendaal, Buijs, and van Reijmersdal (2016) found that a forewarning disclosing the manipulative intent of television commercials was effective in decreasing product desire among eight- to 10-year-old children, while a forewarning disclosing the commercial intent was not effective. Future research should investigate if this is also the case for embedded advertising.

Furthermore, in the case of children, it is all the more important to make sure that they understand the meaning of the cue; otherwise, it will not be effective in terms of stimulating advertising recognition and (certainly not) in terms of critical reflection (see Tessitore and Geuens 2013). Future research should investigate, for example, how conditioning can be used for children to give meaning to cues, depending on their developmental stage.

Future research should also identify the most effective cue in terms of timing (e.g., before, during, or after ad exposure) and exposure time (how many seconds). In this respect, it would be interesting to examine the usefulness of debriefing children for improving their advertising literacy for embedded advertising formats during an extended period of time after exposure. As embedded advertising formats are often immersive, which hinders or demotivates children (and adults) from disengaging with the media content to think about the commercial content (Rozendaal, Lapierre, et al. 2011) during exposure, it may be more fruitful to motivate children to reflect on the commercial content after exposure, in other words, through debriefing. Although Boerman, van Reijmersdal, and Neijens (2014) found that a disclosure shown at the end of a program was not effective in decreasing ad effects, it may still be useful when considered as a debriefing tool (in combination with, e.g., a disclosure used to prime persuasive intent or one that is shown concurrently with the commercial content).

Literature on children's development suggests that a disclosure is especially crucial for children in the analytical phase; however, for embedded formats, disclosures may also be needed to stimulate and assist children in forming a critical reflection. Future research should therefore investigate the design and effectiveness of such disclosures for different embedded advertising formats.

#### **1.4.3.2 Training sessions**

As schools are important outlets to reach millions of children, in-school educational programs (such as the European Media Smart program) represent an ideal opportunity to teach children how to cope with advertising on a large scale. Surprisingly, little is known about the effectiveness of such advertising literacy programs (Nelson 2016). In the past, a limited body of research indicated that an educational intervention can make a difference by enhancing children's comprehension and knowledge of advertising (e.g., An, Jin, and Park 2014; Hudders, Cauberghe, and Panic 2016). Yet these studies mainly focus on (1) advertising in traditional media and (2) improving children's cognitive advertising literacy. Future research should therefore also focus on how affective and moral advertising literacy can be improved for embedded advertising formats.

Table 1-3 Future research suggestions on how to improve advertising literacy

Future research direction	Research questions
<b>Advertising disclosure</b>	How should an advertising disclosure be designed to obtain optimal advertising recognition?
	What type of format should a disclosure be (text, symbol, icon, etc.)?
	What type of semantic content should a disclosure consist of (a phrase? which phrase? a letter? no text? etc.)?
	Which characteristics should a disclosure bear (color, shape, placement, size, vivid/static, etc.)?
	How to adjust the exposure time of a disclosure (when? before or after exposure? for how long? etc.)?
	How should a disclosure be conditioned to automatically activate advertising literacy?
	Is a disclosure equally effective across advertising formats?
	Is a disclosure equally effective across different media (television, Internet, and mobile)?
	Is a disclosure equally effective for children of all ages?
	Can a disclosure be used to prime persuasive intent and thus increase advertising recognitions? Can a debriefing disclosure be effective to increase situational advertising literacy?
<b>Advertising literacy training session</b>	How can dispositional advertising literacy (cognitive, affective, and moral information nodes) be improved in a training session?
	How should the content of the training be different depending on the age of children?
	How can the coping skills of children be improved?
	What training tactics are most effective in improving children's advertising literacy?
	How should training tactics be designed to be most effective in improving children's advertising literacy?
	What are the long-term effects of the training sessions?
	How can if-then heuristics be learned and conditioned in children?
<b>Parental mediation</b>	How can parents help their children cope with advertising?
	Which parental mediation strategies are more effective in helping children cope with advertising?
	Are different parental mediation strategies needed depending on the age of the child?
	Are the different parental mediation strategies equally effective across formats?
	How is the advertising literacy of the parents affecting the effectiveness of parental mediation strategies?

Children should learn how to activate the correct associations related to persuasion when confronted with an advertising cue by using educational packages. This may be achieved by collaborative learning or self-persuasion by which children recall their personal experience with a persuasive attempt they encountered in the past. By repeating and rehearsing this association over time, children will activate their critical mindset when confronted with the disclosure. As a second step, children need to be actively taught to critically process any persuasive attempt by applying the appropriateness or other related heuristics. Future research should therefore focus on how if–then heuristics can be integrated in advertising literacy education, and how effective this strategy really is in automating advertising-related coping processes at the moment children are exposed to advertising.

#### **1.4.3.3 Parental mediation strategies**

Parents can play a crucial role in the development of children’s advertising literacy, as a great part of children’s media use takes part at home (Buijzen 2007) (though, in the past decade, only two studies have investigated this; see Appendix). In particular, in addition to having the ability to restrict children’s media use, parents can also function as role models for their children in teaching them how to react in consumption-related situations (Shin, Huh, and Faber 2012). Traditionally, the literature distinguishes among three forms of parental mediation: restrictive mediation (referring to establishing parental rules about media use time and specific media content), instructive or active mediation (which concerns parent–child communication about media use, such as discussing the content of TV programs and its commercial messages), and co-viewing (i.e., the mediating act of parents watching TV with their children) (Warren 2005). Earlier research demonstrated the advantages of co-viewing in terms of advertising effects (e.g., making comments during food commercials reduces children’s preference for sugary snacks) (Galst 1980), yet similar studies on advertising literacy are surprisingly scarce and mainly focus on traditional media formats (i.e., TV). There is a pressing need for research on how parental mediation can impact children’s advertising literacy, including its cognitive, affective, and moral dimensions, on both the situational and the dispositional level, also for the newer ad formats.

In the context of the embedded advertising formats, we believe that (active) co-viewing (or rather, co-using) in combination with the persuasive intent priming and the implementation intentions strategy is the most promising strategy. More specifically, parents could complement in-school advertising literacy training sessions by providing the time (that schools are lacking) for practicing, in other words, by helping their children apply the appropriate if–then heuristics when confronted with advertising at home. A precondition for this to occur, however, is that parents are advertising-literate themselves, and previous research shows this is not always the case (Evans, Carlson, and Hoy 2013). Therefore, one should invest in awareness tools and educational packages that can be used by both parents and their children (ideally in combination, e.g., a competitive game that parents can play with their children) to improve their advertising literacy level. Future research could investigate how and when (e.g., before, during, or after advertising exposure) parents can assist their children in evoking the most adaptive heuristic. Future research should also investigate which strategies are effective depending on the developmental stage the children are in and the format to which they are exposed.

## 1.5 Conclusion

The current article sheds light on the issues that may arise when children are confronted with embedded advertising. It emphasizes the need to teach them automatic and more implicit mechanisms to activate and apply their advertising literacy. This will enable them to cope with advertising in a conscious and critical way. This does not necessarily lead to negative advertising effects, as the outcome of the process can be positive when an advertisement is nicely executed and uses fair and appropriate tactics. It is essential to conduct further research to unravel the working of advertising literacy among children and identify age-related differences and issues related to format-specific characteristics. The article further encourages a broad and integrated approach when improving children's advertising literacy, including stimulating fair and ethical advertising practices; implementing advertising disclosures that improve recognition of commercial content and help children activate the right if-then rules; developing in-school training sessions to extend children's dispositional advertising literacy; and improving coping skills and raising awareness among parents about their role in helping children cope with advertising. These suggestions will empower children to cope with embedded advertising.

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## 1.7 Appendix

Table 1-4 Literature on the conceptual development of advertising literacy

Authors	Year	Title	Journal	Focus
Friestad, M., & Wright, P.	1994	The Persuasion Knowledge Model - How People Cope with Persuasion Attempts	Journal of Consumer Research, 21(1), 1-31	<ul style="list-style-type: none"> <li>Model of how people develop and use knowledge about persuasion agents's goals and tactics, and about how to skillfully cope with these</li> <li>Implications for consumers' use of marketers' advertising and selling attempts to refine attitudes toward products and marketers</li> </ul>
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	<ul style="list-style-type: none"> <li>Conceptual framework for consumer socialization: stages of cognitive and social development &amp; consumer socialization</li> </ul>
Moses, L. J., & Baldwin, D. A.	2005	What can the study of cognitive development reveal about children's ability to appreciate and cope with advertising?	Journal of Public Policy & Marketing, 24(2), 186-201	<ul style="list-style-type: none"> <li>Cognitive development in terms of "theories of mind" and "executive functioning" &amp; the consequences for children's ability to appreciate and cope with advertising</li> </ul>
Wright, P., Friestad, M., & Boush, D. M.	2005	The development of marketplace persuasion knowledge in children, adolescents, and young adults	Journal of Public Policy & Marketing, 24(2), 222-233	<ul style="list-style-type: none"> <li>Review of the early and current models of children's and adolescents' knowledge about advertising and persuasion</li> </ul>
Livingstone, S., & Helsper, E. J.	2006	Does advertising literacy mediate the effects of advertising on children? A critical examination of two linked research literatures in relation to obesity and food choice	Journal of Communication, 56(3), 560-584	<ul style="list-style-type: none"> <li>Dual process model of cognitive persuasion: <ul style="list-style-type: none"> <li>Elaboration Likelihood Model of Persuasion</li> <li>Heuristic-Systematic Model</li> </ul> </li> </ul>
Nairn, A., & Fine, C.	2008	Who's messing with my mind? The implications of dual-process models for the ethics of advertising to children	International Journal of Advertising, 27(3), 447-4+	<ul style="list-style-type: none"> <li>Consumption-related judgements and behaviours influenced by implicitly acquired affective associations &gt; via consciously mediated persuasive information</li> </ul>
Buijzen, M., Van Reijmersdal, E. A., & Owen, L. H.	2010	Introducing the PCMC Model: An Investigative Framework for Young People's Processing of Commercialized Media Content	Communication Theory, 20(4), 427-450	<ul style="list-style-type: none"> <li>Model of young people's persuasion processing (developmental)</li> <li>Theory of how communication predicts persuasion processing (limited capacity information processing approach)</li> <li>Identification of message characteristics that affect persuasion processing (e.g. prominence, interactivity, integration)</li> </ul>
Rozendaal, E., Lapiere, M. A., van Reijmersdal, E. A., & Buijzen, M.	2011	Reconsidering Advertising Literacy as a Defense Against Advertising Effects	Media Psychology, 14(4), 333-354	<ul style="list-style-type: none"> <li>children unlikely to use conceptual ad knowledge as defiance in the context of contemporary advertising -&gt; extending cognitive advertising literacy with 1) advertising performance and 2) attitudinal advertising literacy</li> </ul>
Büttner, O. B., Florack, A., & Serfas, B. G.	2013	A Dual-Step and Dual-Process Model of Advertising Effects: Implications for Reducing the Negative Impact of Advertising on Children's Consumption Behaviour.	Journal of Consumer Policy, 37(2), 161-182	<ul style="list-style-type: none"> <li>Introduction of a dual-step (ad exposure vs purchase/consumption) and dual-process (implicit vs explicit) model of advertising effects on children</li> <li>Based on a review of implicit advertising effects and implicit mechanisms of self-control</li> </ul>
Evans, N. J., & Park, D.	2015	Rethinking the Persuasion Knowledge Model: Schematic Antecedents and Associative Outcomes of Persuasion Knowledge Activation for Covert Advertising	Journal of Current Issues & Research in Advertising, 36(2), 157-176	<ul style="list-style-type: none"> <li>Conceptual model, based on the Persuasion Knowledge Model and Schema Theory</li> <li>Focuses on the ability to recognize covert advertising episodes as advertising, and on the associated attitudinal outcomes</li> </ul>

Table 1-5 Empirical studies on children's advertising literacy in the last 10 years (excl. studies on advertising cues, parental mediation and training sessions)

Authors	Year	Title	Journal	Format	IV	DV
Rozendaal, E., Buijzen, M., & Valkenburg, P.	2010	Comparing Children's and Adults' Cognitive Advertising Competences in the Netherlands.	Journal of Children and Media, 4(1), 77-89	TV	• Age	• Advertising recognition • Understanding advertising's selling and persuasive intent
Rozendaal, E., Buijzen, M., & Valkenburg, P.	2011	Children's understanding of advertisers' persuasive tactics	International Journal of Advertising, 30(2), 329-350	TV	• Age	• Understanding of advertisers' intended effects of tactics
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	TV	• Understanding the purpose of TV advertising (picture indication + small discussion groups): understanding selling versus persuasive intent	
Rose, G. M., Merchant, A., & Bakir, A.	2012	Fantasy in Food Advertising Targeted at Children	Journal of Advertising, 41(3), 75-90	TV	• Understanding of persuasive intent and techniques • Perception of fantasy in the advertisement • Perceived manipulative intent	• Attitudes toward the advertisement
Spielvogel, J., & Terlutter, R.	2013	Development of TV advertising literacy in children Do physical appearance and eating habits matter?	International Journal of Advertising, 32(3), 343-368	TV	• Physical appearance (BMI, body shape perception, self-esteem) • Eating habits (food choice, critical attitude towards food)	• Advertising literacy for food advertising (understanding advertising intent, and advertising scepticism)
Oprea, S. J., Buijzen, M., van Reijmersdal, E. A., & Valkenburg, P. M.	2014	Children's Advertising Exposure, Advertised Product Desire, and Materialism: A Longitudinal Study	Communication Research, 41(5), 717-735	TV	• Advertising exposure (viewing frequency of popular TV shows with highest ad density) • Advertised product desire	• Materialism
Van de Sompel, D., & Vermeir, I.	2016	The Influence of Source Attractiveness on Self-Perception and Advertising Effectiveness for 6-7 Year Old Children	International Journal of Consumer Studies, n/a-n/a.	TV	• Commercial including attractive vs unattractive model • Attitude toward the ad	• Self-perception (perceived self-worth and physical attractiveness) • Advertising effectiveness (purchase and request intention)
Mallinckrodt, V., & Mizerski, D.	2007	The effects of playing an advergame on young children's perceptions, preferences, and requests	Journal of Advertising, 36(2), 87-100	Advergames	• Recognizing commercial nature, understanding intent of web promotion	• Brand/product preference • Intention to request/pester
Van Reijmersdal, E. A., 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	Advergames	• Brand prominence • Game involvement • Persuasion knowledge: understanding advertising's source & persuasive intent	• Cognitive: brand recall/recognition • Affective: brand attitudes
Waiguny, M. K. J., Neilson, M. R., & Terlutter, R.	2012	Entertainment matters! The relationship between challenge and persuasiveness of an advergame for children.	Journal of Marketing Communications, 18(1), 69-89	Advergames	• Underchallenged vs overchallenged • Persuasion knowledge: identification of the commercial content, purpose of the advergame	• Brand attitudes

Rifon, N. J., Quilliam, E. T., Peck, H.-J., Weatherspoon, L., J. Kim, S.-K., & Smeaker, K. C.	2014	Age-dependent effects of food advergame brand integration and interactivity.	International Journal of Advertising, 33(3), 475–508	Advergames	Brand integration and interactivity (playing vs watching) Persuasion knowledge: source intention knowledge	<ul style="list-style-type: none"> <li>Brand recall</li> <li>Brand attitudes</li> <li>Taste expectations</li> <li>Persuasion requests</li> <li>Health perceptions for placed brands</li> </ul>
Vanwesenbeeck, I., Walrave, M., & Ponnet, K.	2016	Children and advergames: the role of product involvement, prior brand attitude, persuasion knowledge and game attitude in purchase intentions and changing attitudes	International Journal of Advertising, 0(0), 1–22	Advergames	<ul style="list-style-type: none"> <li>Product involvement</li> <li>Prior brand attitude</li> <li>Persuasion knowledge: understanding selling and persuasive intent</li> <li>Game attitude</li> </ul>	<ul style="list-style-type: none"> <li>Brand attitude changes</li> <li>Purchase intentions</li> </ul>
Waiguny, M. K. J., Nelson, M. R., & Terlutter, R.	2014	The Relationship of Persuasion Knowledge, Identification of Commercial Intent and Persuasion Outcomes in Advergames - The Role of Media Context and Presence	Journal of Consumer Policy, 1–21	Advergames (vs TV)	<ul style="list-style-type: none"> <li>Persuasion knowledge of advertising tactic (advergame vs TV commercial)</li> <li>Level of engagement with the medium (presence)</li> </ul>	<ul style="list-style-type: none"> <li>Identification of commercial content</li> <li>Persuasion outcomes: brand beliefs, preference, poster intention/behaviour</li> </ul>
Rozenendaal, E., Slot, N., van Reijmersdal, E. A., & Buijzen, M.	2013	Children's Responses to Advertising in Social Games	Journal of Advertising, 42(2–3), 142–154	Advergames (social games)	<ul style="list-style-type: none"> <li>Persuasion knowledge: advertising recognition, understanding commercial source and persuasive intent, critical attitude toward advertising</li> <li>Susceptibility to peer influence</li> <li>Already playing social games or not</li> </ul>	<ul style="list-style-type: none"> <li>Advertised brand desire/product request</li> </ul>
Verhellen, Y., Oates, C., Peismacker, P., & Dens, N.	2014	Children's Responses to Traditional Versus Hybrid Advertising Formats: The Moderating Role of Persuasion Knowledge	Journal of Consumer Policy, 37(2), 235–255	Advergames (trailer/advergame/combination) (vs TV)	<ul style="list-style-type: none"> <li>TV commercial vs trailer/advergame/combination</li> <li>Persuasion knowledge: identification of commercial source &amp; persuasive intent</li> </ul>	<ul style="list-style-type: none"> <li>Brand recall</li> <li>Brand attitude</li> <li>Brand choice</li> </ul>
Owen, L., Lewis, C., Auty, S., & Buijzen, M.	2013	Is Children's Understanding of Nontraditional Advertising Comparable to Their Understanding of Television Advertising?	Journal of Public Policy & Marketing, 32(2), 195–206	Brand placement (movie & in-game) (vs TV)	<ul style="list-style-type: none"> <li>Advertising understanding (open-ended &amp; cued measures); advertising purpose and intent</li> </ul>	
McAlister, A. R., & Cornwell, T. B.	2009	Preschool Children's Persuasion Knowledge: The Contribution of Theory of Mind	Journal of Public Policy & Marketing, 28(2), 175–185	Print	<ul style="list-style-type: none"> <li>Theory of mind (2 false belief tasks + 1 pretend representation task)</li> </ul>	<ul style="list-style-type: none"> <li>Persuasion knowledge (task); understanding advertiser's persuasive intent</li> </ul>
McAlister, A. R., & Cornwell, T. B.	2009	Preschool Children's Persuasion Knowledge: The Contribution of Theory of Mind	Journal of Public Policy & Marketing, 28(2), 175–18	Print	<ul style="list-style-type: none"> <li>Theory of mind (tasks)</li> </ul>	<ul style="list-style-type: none"> <li>Persuasion knowledge (task)</li> </ul>
Van Reijmersdal, E. A., Rozenendaal, E., & Buijzen, M.	2015	Boys' responses to the integration of advertising and entertaining content	Young Consumers, 16(3), 251–263	Print	<ul style="list-style-type: none"> <li>Awareness of persuasive intent (of a non-integrated catalogue vs a brand-integrated magazine)</li> </ul>	<ul style="list-style-type: none"> <li>Advertised-product attitude</li> </ul>

Tarabashkina, L., Quester, P., & Crouch, R.	2016	Food advertising, children's food choices and obesity: interplay of cognitive defenses and product evaluation: an experimental study	International Journal of Obesity, 40(4), 581–586	Web page ads (pop-up)	<ul style="list-style-type: none"> <li>• Food (snack) vs control (toy) advertisement</li> <li>• Product evaluations</li> <li>• Nutritional knowledge</li> <li>• Persuasion knowledge: understanding selling and persuasive intent</li> </ul>	<ul style="list-style-type: none"> <li>• Food choices</li> <li>• BMI</li> </ul>
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, 71–83	Web page ads	<ul style="list-style-type: none"> <li>• Printed copies of invented web pages including advertisements: price information vs not</li> </ul>	<ul style="list-style-type: none"> <li>• Recognition of the advertisements</li> </ul>
Grohs, R., Wagner, U., & Steiner, R.	2012	An Investigation of Children's Ability to Identify Sponsors and Understand Sponsorship Intentions	Psychology & Marketing, 29(11), 907–917	Sponsorship (theme park)	<ul style="list-style-type: none"> <li>• Sponsor prominence</li> <li>• Activity-sponsor fit</li> <li>• Activity involvement</li> <li>• Short-term vs long-term exposure</li> </ul>	<ul style="list-style-type: none"> <li>• Ability to identify sponsors in different conditions: unaided recall, aided recall, and recognition</li> <li>• Ability to understand sponsorship intentions</li> </ul>
Simoes, I., & Agante, L.	2014	The impact of event sponsorship on Portuguese children's brand image and purchase intentions: The moderator effects of product involvement and brand familiarity.	International Journal of Advertising, 33(3), 533–556	Sponsorship (event)	<ul style="list-style-type: none"> <li>• Understanding the source and persuasive intent of sponsorship advertisements</li> <li>• Brand familiarity</li> <li>• Product involvement</li> <li>• Age</li> </ul>	<ul style="list-style-type: none"> <li>• Transference of brand image from the event to the brand</li> <li>• Purchase intentions</li> </ul>
Freeman, D., & Shapiro, S.	2014	Twens' Knowledge of Marketing Tactics Skeptical Beyond Their Years	Journal of Advertising Research, 54(1), 44–55	New ad tactics	<ul style="list-style-type: none"> <li>• Age</li> <li>• Advertising tactic awareness</li> </ul>	<ul style="list-style-type: none"> <li>• Tactic evaluations</li> <li>• Advertising scepticism</li> <li>• Materialism</li> </ul>

Table 1-6 Methodological studies on measuring children's advertising literacy

Authors	Year	Title	Journal	Focus
Derbaix, C., & Pecheux, C.	2003	A new scale to assess children's attitude toward TV advertising	Journal of Advertising Research, 43(4), 390–399	<ul style="list-style-type: none"> <li>• Development and validation of a scale measuring 8- to 12-year-olds' global attitude toward TV advertising</li> </ul>
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	<ul style="list-style-type: none"> <li>• Description of self-report measure of children's attitudes toward TV advertising (3 factors: enjoyment, credence and behavioural intention)</li> </ul>
Rozendaal, E., Oprea, S. J., & Buijzen, M.	2014	Development and Validation of a Survey Instrument to Measure Children's Advertising Literacy	Media Psychology, 0(0), 1–29	<ul style="list-style-type: none"> <li>• Advertising Literacy Scale for children with two subscales: the Conceptual Advertising Literacy Scale (CALSC) and the Attitudinal Advertising Literacy Scale for children (AALS-C)</li> </ul>
Ham, C.-D., Nelson, M. R., & Das, S.	2015	How to Measure Persuasion Knowledge	International Journal of Advertising, 34(1), 17–53	<ul style="list-style-type: none"> <li>• Review of the methods and measurements employed in research using the Persuasion Knowledge Model (incl. children)</li> </ul>

Table 1-7 Studies on warning cues for triggering children's advertising literacy (last 10 years)

Authors	Year	Title	Journal	Format	IV	DV
Ant, S., & Stern, S.	2011	Mitigating the effects of advergames on children: Do advertising breaks work?	Journal of Advertising, 40(1), 43–56	Advergames	• Ad break vs none	<ul style="list-style-type: none"> <li>• Persuasion knowledge</li> <li>• Agent knowledge</li> <li>• Assistive intent</li> <li>• Brand recall &amp; preference</li> </ul>
Panic, K., Cauberghe, V., & De Pelsmacker, P.	2013	Comparing TV Ads and Advergames Targeting Children: The Impact of Persuasion Knowledge on Behavioral Responses	Journal of Advertising, 42(2–3), 264–273	Advergames (vs TV)	<ul style="list-style-type: none"> <li>• Attitude toward the (specific) game/ad</li> <li>• Persuasion knowledge: understanding commercial source &amp; persuasive intent</li> </ul>	<ul style="list-style-type: none"> <li>• Purchase request</li> </ul>
Reijmersdal, E. A. van, Boerman, S. C., Buijzen, M., & Rozendaal, E.	2016	This is Advertising! Effects of Disclosing Television Brand Placement on Adolescents.	Journal of Youth and Adolescence, 1–15	Brand placement (TV)	<ul style="list-style-type: none"> <li>• Television brand placement disclosure (duration)</li> <li>• Persuasion knowledge: recognition of brand placement as advertising, understanding persuasive intent, and critical attitude toward brand placement</li> </ul>	<ul style="list-style-type: none"> <li>• Brand memory</li> <li>• Brand attitude</li> </ul>
Rozendaal, E., Buijzen, L. & van Reijmersdal, E. A.	2016	Strengthening Children's Advertising Defenses: The Effects of Forewarning of Commercial and Manipulative Intent	Frontiers in Psychology	Television Commercial	<ul style="list-style-type: none"> <li>• A Television Commercial Forewarning</li> <li>• A commercial intent forewarning versus a manipulative intent forewarning</li> </ul>	<ul style="list-style-type: none"> <li>• Attitudinal advertising literacy</li> <li>• Advertised product desire</li> </ul>

Table 1-8 Studies on the role of (perceived) parental mediation in children's advertising literacy (last 10 years)

Authors	Year	Title	Journal	Format	IV	DV
Rozendaal, E., Buijzen, M., & Valkenburg, P.	2009	Do children's cognitive advertising defenses reduce their desire for advertised products?	Communications-European Journal of Communication Research, 34(3), 287–303	TV	<ul style="list-style-type: none"> <li>• Amount of TV ad exposure</li> <li>• Control: parental advertising mediation</li> <li>• Cognitive defense: advertising recognition, understanding selling/persuasive intent</li> <li>• Age</li> </ul>	<ul style="list-style-type: none"> <li>• Advertised product (category) desire</li> </ul>
Vanwesenbeeck, I., Walrave, M., & Ponnnet, K.	2016	Young Adolescents and Advertising on Social Network Games: A Structural Equation Model of Perceived Parental Media Mediation, Advertising Literacy, and Behavioral Intention	Journal of Advertising, 0(0), 1–15	SNGs	<ul style="list-style-type: none"> <li>• Perceived parental media mediation in social network games</li> <li>• Conceptual advertising literacy: understanding of selling/persuasive intention</li> <li>• Attitudinal advertising literacy: critical attitude toward SNG advertising</li> </ul>	<ul style="list-style-type: none"> <li>• Purchase request intention</li> </ul>

Table 1-9 Studies on interventions and training sessions to improve children's advertising literacy (last 10 years)

Authors	Year	Title	Journal	Format	IV	DV
Buijzen, M.	2007	Reducing children's susceptibility, to commercials: Mechanisms of factual and evaluative advertising interventions	Media Psychology, 9(2), 411-430	TV	<ul style="list-style-type: none"> <li>Factual vs evaluative intervention: experimenter provided facts about vs negative evaluations of the commercials and advertised products</li> <li>Advertising knowledge, advertising scepticism, attitude toward commercials</li> </ul>	<ul style="list-style-type: none"> <li>Intended product requests</li> </ul>
Wollslager, M. E.	2009	Children's Awareness of Online Advertising on Neopets: The effect of Media Literacy Training on Recall	Studies in Media & Information Literacy Education, 9(2), 31-53	Advergimes	<ul style="list-style-type: none"> <li>Brief media literacy training session</li> </ul>	<ul style="list-style-type: none"> <li>Ability to identify embedded online advertising, understanding selling intent</li> </ul>
Rozendaal, E., Buijzen, M., & Valkenburg, P. M.	2012	Think-Aloud Process Superior to Thought-Listing in Increasing Children's Critical Processing of Advertising	Human Communication Research, 38(2), 199-221	TV	<ul style="list-style-type: none"> <li>2 though verbalization process groups: think aloud vs thought-listing (asking the children what they are/were thinking during/after the video containing a commercial)</li> <li>Disbelief/disliking of the commercial</li> </ul>	<ul style="list-style-type: none"> <li>Advertised brand attitude</li> </ul>
An, S., Jin, H. S., & Park, E. H.	2014	Children's Advertising Literacy for Advergimes: Perception of the Game as Advertising	Journal of Advertising, 43(1), 63-72	Advergimes	<ul style="list-style-type: none"> <li>Advertising literacy educational program</li> <li>Advertising recognition (perception of the game as advertising)</li> </ul>	<ul style="list-style-type: none"> <li>Advertising scepticism (general)</li> </ul>
Nelson, M. R.	2015	Developing Persuasion Knowledge by Teaching Advertising Literacy in Primary School	Journal of Advertising, 0(0), 1-14		<ul style="list-style-type: none"> <li>Three-hour advertising literacy classroom intervention during three weeks</li> </ul>	<ul style="list-style-type: none"> <li>Understanding of the message creator, the selling intent, persuasive strategy, and target audience</li> </ul>
Vanwesenbeeck, I., Ponnet, K., & Walrave, M.	2016	Go with the flow: How children's persuasion knowledge is associated with their state of flow and emotions during adverage play.	Journal of Consumer Behaviour, 15(1), 38-47	Advergimes	<ul style="list-style-type: none"> <li>Persuasion knowledge: understanding selling and persuasive intent</li> <li>Game flow experience</li> </ul>	<ul style="list-style-type: none"> <li>Self-reported player emotions toward the game</li> </ul>
del Mar Pàmies, M., Ryan, G., & Valverde, M.	2016	How intervention can empower children as consumers in dealing with advertising	International Journal of Consumer Studies, n/a/n/a.	/	<ul style="list-style-type: none"> <li>Intervention by school teachers (3 activities to stimulate critical thinking about advertising, to make children aware that advertising does not always tell the truth, and of product packaging and nutritional characteristics + discussion on advertising tactics)</li> </ul>	<ul style="list-style-type: none"> <li>Changes in advertising literacy (recognition, understanding selling/persuasive intent, perception of intended audience), in attitudes toward advertising, and in children's behaviour (resistance strategies, recommending, peer power)</li> </ul>







## 2 MEASURING CHILDREN'S ADVERTISING LITERACY

### **Abstract**

Although children's advertising literacy is an increasingly well-documented research area, the existing studies are characterized by a great conceptual and hence operational diversity. This lack of methodological uniformity may have been at least partially responsible for the inconsistent results found with regard to children's development, possession and application of advertising literacy. The aim of this article is to give an overview of the different measurement methodologies used in past research efforts to assess children's advertising literacy. Taking into account children's psychological (cognitive, affective and moral) development, we formulate recommendations on which methods are most suitable to use in future advertising literacy research for different age categories.

**Keywords:** Advertising literacy, children, development, methods, measurement

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### 2.1 Introduction

It is well known that children are daily exposed to large amounts of advertising. However, as children's cognitive, affective and moral skills and abilities are still developing, they have much more difficulties with consciously and critically coping with advertising than adults (John 1999; Rozendaal et al. 2011). Moreover, as the past decades are characterized by a rapidly evolving media landscape in which advertisers resort to more embedded forms of advertising (such as product placement or advergames), it is becoming even more difficult for children to recognize advertising as such in the first place (Owen et al. 2013).

Fueled by these concerns, a substantial and growing body of research has emerged on the role of children's advertising literacy, or the knowledge, abilities and attitudes that may help them cope with advertising (Rozendaal, Oprea, and Buijzen 2016; Nelson 2016). Yet, the results of these studies are far from univocal. Some studies found a negative relationship between advertising literacy and the desire for the advertised products (e.g. Robertson and Rossiter 1974; Rozendaal, Buijzen, and Valkenburg 2009), whereas other studies found a positive association (e.g. Christenson 1982; Fischer 1985) or no association at all (e.g. Mallinckrodt and Mizerski 2007; van Reijmersdal, Rozendaal, and Buijzen 2012). In the current article, it is argued that these inconsistencies are at least partly due to different conceptual and operational definitions of advertising literacy (Rozendaal, Oprea, and Buijzen 2016). Existing studies have used a variety of methods and instruments to measure the same concepts, and the literature is not straightforward in which methods provide the most suitable measurement of this construct.

To address this methodological disparity, more initiatives are necessary to clarify the measurement of children's advertising literacy, starting from a clear conceptual definition (Kunkel 2010). In the present article, a first step is taken to meet this challenge. Based on a recent conceptualization of advertising literacy, which encompasses three dimensions (cognitive, affective and moral advertising literacy; Hudders et al. 2017), the article first offers a concise overview of the different methods used in past advertising literacy research, and thereafter, recommends suitable methods and instruments for future advertising literacy research among children and teenagers. All these recommendations are based on children's psychological development, since an appropriate research method to undertake research with children primarily depends on their (cognitive, affective and moral) abilities (Borgers, Leeuw, and Hox 2000; Ólafsson, Livingstone, and Haddon 2013; Scott 2000). Different age categories are introduced that are often identified within the research involving advertising literacy, and that represent meaningful transition points in its development (Carter et al. 2011). The age groups being addressed are preschoolers (3-5 year), elementary school children (6-8 year), tweens (9-12 year) and teenagers (13+ year). By presenting these recommendations, guidance is offered to researchers and practitioners in their search for an appropriate research method.

## **2.2 Conceptualizing advertising literacy**

### **2.2.1 Advertising literacy dimensions**

As Kunkel (2010) asserted that advertising literacy should be defined more fully in order to measure it more comprehensively, it is necessary first to clarify this concept before discussing methodological considerations. Advertising literacy can be considered as a part of media literacy, which has been defined broadly as 'a set of perspectives that we actively use to expose ourselves to the mass media to process and interpret the meaning of the messages we encounter' (Potter 2016, p.24). Advertising literacy, then, is more narrowly delineated as the skills and abilities to recognize, understand, analyze, interpret and evaluate advertising (Hudders et al. 2017). The current article departs from the conceptual framework recently put forward by Hudders et al. (2017), who consider advertising literacy as a multidimensional construct consisting of a cognitive, affective and moral dimension (each of which can be further divided into dispositional and situational advertising literacy, see next section for a detailed account).

The cognitive dimension of advertising literacy corresponds largely with the well-known concept of persuasion knowledge or "people's personal knowledge about persuasion agents' goals and tactics" (Friestad and Wright 1994, p.1). Cognitive advertising literacy, however, is limited to advertising in particular, thereby excluding other sources of persuasion. To date, most of the research on advertising literacy has focused on this dimension (Rozendaal et al. 2011). However, there is an ongoing debate on the underlying components that need to be measured to arrive at an accurate estimate of this construct. In the first place, it is measured as advertising recognition, defined as children's ability to differentiate advertising from other media content (Robertson and Rossiter 1974). In addition, this measure is often coupled with an assessment of advertising understanding. In this regard, an important distinction has been made, namely between the understanding of advertising's selling intent on one hand, and its persuasive intent on the other (Moses and Baldwin 2005; Rozendaal, Buijzen, and

Valkenburg 2010). Other cognitive components have been proposed as well, yet these are adopted less frequently (e.g., understanding persuasive tactics, recognizing advertising's source) (Rozendaal et al. 2011). In comparison with this cognitive dimension of advertising literacy, the affective (cf. Rozendaal et al. 2011) and the moral dimensions (cf. Friestad and Wright 1994) have received less scholarly attention in past advertising research.

Affective advertising literacy refers to children's conscious awareness of their initial emotional reactions toward advertising, and their skills or abilities to suppress or regulate these emotions (Hudders et al. 2017). Put differently, when children have insight in the use of emotional appeals in advertising, they should be able to detect their own emotional reactions as evoked by these appeals (Saarni 1999; Buckley and Saarni 2013). This should allow them to regulate these emotions better, consequently paving the way for a less biased processing of advertising, involving critical reflection. These affective skills become increasingly important as the contemporary advertising formats aimed at children (such as advergames) mostly involve fun and entertainment, thereby aiming to transfer the positive emotions generated to the ad, brand or product (Nairn and Fine 2008). To illustrate, imagine a child playing an advergame made to promote a product from a cereal company. Although the ad literate child may initially enjoy the immersive experience of game-playing, he or she may come to perceive the game in a new light when becoming aware that the pleasant gaming environment is meant to induce a similar feeling toward the embedded cereal brand or product. Consequently, the child may also revisit its initial emotional reaction, and gain control over it in such a way that there is room to think about this advertising practice in a critical way.

Finally, moral advertising literacy entails the skills, abilities and propensity to morally evaluate advertising, as expressed by the beliefs and judgments people develop about the appropriateness of its tactics (Hudders et al. 2017). Although it has been more than two decades ago that Friestad and Wright (1994) addressed the importance of forming appropriateness beliefs in arriving at 'valid' judgments of persuasion tactics and well-substantiated consumer decisions, little empirical research has been devoted to investigate this indispensable facet of advertising literacy among young people (some exceptions are: Wei, Fischer, and Main 2008; Hibbert et al. 2007; Nelson, Wood, and Paek 2009). However, it can be argued that it is more relevant than ever for children to (have the propensity to) morally evaluate advertising and form beliefs about the fairness, respectfulness and manipulativeness of its tactics, considering that most of the contemporary ad formats directed at them make use of 'covert' marketing tactics (Owen et al. 2013).

## **2.2.2 Dispositional and situational advertising literacy**

Further, as implied by the theoretical framework of Hudders et al. (2017), it is also conceptually (and therefore methodologically) essential to differentiate within the dimensions of advertising literacy, and more specifically between dispositional and situational advertising literacy. The authors have based this dichotomization on Friestad and Wright's (1994) persuasion knowledge model, which distinguishes between declarative or factual knowledge (i.e., about general market principles) on one hand, and procedural knowledge (as learned through the application of declarative/factual knowledge on specific persuasion attempts) on the other. Correspondingly, dispositional advertising literacy (cf. declarative/factual knowledge) refers to the possession of advertising literacy, or the knowledge, beliefs

and abilities regarding advertising that people have formed throughout their lifetime. Situational advertising literacy (cf. procedural knowledge) refers to the actual activation of the associative network of dispositional advertising literacy. Put differently, it is about the retrieval and application of relevant knowledge, beliefs, and judgments during (and/or directly before or after) exposure to an advertisement, allowing children to recognize advertising and to critically reflect upon it.

From a methodological point of view, most studies seem to assess children's situational advertising literacy (see below). That is, they are usually first presented with a specific stimulus (e.g., a commercial, a video game) containing advertising, and consequently asked specific questions about the extent to which they have noticed the presence of advertising and understood its commercial intent. Therefore, the findings generated by these measures indicate the extent to which children have succeeded in accessing, retrieving and applying the relevant information to process a specific ad at the moment of exposure. In the few studies that assess dispositional advertising literacy (see below), children are not exposed to specific ads, but are immediately asked questions about advertising (formats, and tactics) in general. These measures may deliver useful insights about the current level of children's advertising knowledge and beliefs.

Distinguishing between situational and dispositional advertising literacy is important, as their distinct conceptual underpinnings imply different interpretations of the findings they generate. Moreover, it is equally important to do so for the sake of guarding the possibility to compare these findings across studies. Unfortunately, the choice for measuring advertising literacy in a dispositional and/or situational manner has rarely been motivated in past empirical research. More so, this meaningful distinction has often been neglected by using both concepts and their measures interchangeably (Hudders et al. 2017). Acknowledging these issues, the current article has special attention for this distinction in addressing the methods used in existing advertising literacy research and in formulating methodological recommendations for future studies.

## **2.3 Overview of the different methods according to age groups**

Having outlined the conceptual foundations of advertising literacy, the current section departs from this framework by providing an overview per age group of 1) the skills children may (or may not) have developed, relevant to the formation (and application) of the cognitive, affective and moral dimensions of advertising literacy, and to their abilities to respond adequately to specific methodologies; 2) how these advertising literacy dimensions were (or were not) operationalized in the available literature; and 3) what methods can be suggested to measure children's advertising literacy more consistently, considering their cognitive, affective and moral development (for a summary, see Table 1).

### **2.3.1 Preschoolers (3-5-year)**

#### **2.3.1.1 Cognitive, affective and moral skills**

Preschoolers are cognitively immature as their thinking and language skills are still very limited (Borgers, Leeuw, and Hox 2000). In this stage of life, children's symbolic thinking is based on incomplete concepts, and therefore it is not advisable to ask children questions about abstract concepts

such as 'advertising' or 'commercials' in general (i.e., dispositional advertising literacy) (John 1999). However, as a child's first coping mechanism regarding advertising is a cognitive one (i.e., ad recognition) (Derbaix and Bree 1997; Friestad and Wright 1994), we argue that, if an appropriate method is used, cognitive advertising literacy can already be measured situationally among this age category (see Stephens, Stutts, and Burdick 1982; Stutts, Vance, and Hudleson 1981).

With regard to affective skills, preschoolers still rely to a high extent on communication with others to become aware of (and evaluate) emotion-eliciting events and their own feelings (Buckley and Saarni 2013; Saarni 1999). Therefore, it seems only useful to measure their affective advertising literacy after certain interventions are implemented, such as training sessions in which they learn about advertising, its commercial intentions and strategies to evoke certain emotions, and in which they are stimulated to become aware of their own emotions as a reaction to such strategies.

Preschoolers also have an underdeveloped Theory of Mind (ToM) – this refers to the ability to attribute mental states (such as intentions, motivations and attitudes) to the self and others, and to comprehend that others can have mental states that are different from their own (McAlister and Cornwell 2009; Premack and Woodruff 1978). This skill enables children to take the perspective of advertisers or companies and their intentions to persuade others (Lapierre 2015; McAlister and Cornwell 2009; Moses and Baldwin 2005). As children's moral reasoning has been linked to the ability of perspective-taking (cfr. ToM) (Chandler, Sokol, and Wainryb 2000; Krcmar and Cooke 2001), it can be argued that most preschoolers lack the ability to imagine that advertisers may use inappropriate tactics to reach their commercial goals. Therefore, the moral dimension of advertising literacy should not yet be measured among this young group.

### **2.3.1.2 Past research methods**

In the literature, four main methods used to measure cognitive advertising literacy among preschoolers can be identified.

First, a significant amount of studies – the majority of them two to three decades old – measured this concept mainly dispositionally by using individual interviews or small focus groups (Blosser and Roberts 1985; Carter et al. 2011; Macklin 1983; Stephens, Stutts, and Burdick 1982; Stutts, Vance, and Hudleson 1981). In this respect, researchers set up an 'interrogatory' setting in which they encouraged children to talk freely about advertising (Woodhead and Faulkner 2000).

Second, some studies have measured advertising literacy – mainly situationally – by using visual self-reports (Carter et al. 2011; Donohue, Henke, and Donohue 1980; Macklin 1985, 1987; McAlister and Cornwell 2009; Wilson and Weiss 1992) in which preschoolers are presented a closed, standardized questionnaire with illustrated answer options that contain the 'correct' answer among a number of bogus answers (see next section for more information, as this is the predominant method among elementary school children).

Third, a limited number of studies have made use of interactive game-playing methods, in particular to measure preschoolers' situational recognition of TV commercials (Stephens, Stutts, and Burdick 1982; Stutts, Vance, and Hudleson 1981), whereby children were asked to keep their hands in their laps as long as they do not see an ad, and to put their hands on a red square of a cardboard from the moment they recognize an advertisement.

Fourth, one study was found that has used information from proxy respondents. In this study, Cornish (2014) interviewed parents about how advertising is targeting their children, and how they react to such persuasion attempts.

To the best of our knowledge, there are no studies having measured affective and moral advertising literacy among preschoolers.

### **2.3.1.3 Future recommendations**

Keeping in mind preschoolers' psychological skills discussed earlier, it can be suggested to measure only cognitive (i.e., situational ad recognition) and affective advertising literacy (i.e., after intervention) among this age group.

Considering their limited thinking capabilities and language skills, it can be argued that past research relying on interviews or visual self-reports have overestimated preschoolers' advertising literacy (Borgers, Leeuw, and Hox 2000). In any case, we propose to use only situational measures when directly measuring advertising literacy among preschoolers, as their symbolic thinking is too incomplete for them to answer questions about abstract advertising concepts. The use of proxy information might be an alternative, in that parents or other daily caretakers may describe how (they perceive that) their children think about and emotionally react to advertising when exposed to certain formats. However, one should consider a possible disparity between proxy estimation of the child's perspective and the child's actual, personal viewpoint (Ólafsson, Livingstone, and Haddon 2013; Scott 2000).

Bearing the latter in mind, it may be more fruitful to measure preschoolers' advertising literacy using game-play methods (Ólafsson, Livingstone, and Haddon 2013). This is a common technique employed by researchers in the area of psychological child development, since young children are more competent at expressing their ideas and feelings by playing simple games than they are at verbalizing them (Stephens, Stutts, and Burdick 1982). Moreover, a game environment can simulate phenomena of everyday life in a context children are already familiar with (Schousboe and Winther-Lindqvist 2013). This method has already been proven effective to measure preschoolers' cognitive advertising literacy, and in particular their situational recognition of an advertisement (Stephens, Stutts, and Burdick 1982; Stutts, Vance, and Hudleson 1981).

Future research could also extend the game-play method to measure preschoolers' understanding of an advertisement's commercial intent. For instance, preschoolers could be shown a TV commercial and then (after measuring recognition) be asked to re-enact that commercial (eventually by using dolls or puppets), in which one child is the seller of the advertised product, and another one the buyer; the ease with which this role-play acting occurs should be an indication of their cognitive advertising literacy (see Henriksen 1996). However, it should be noted that such methods pose a real challenge for future studies that want to assess preschoolers' understanding of embedded advertising formats (e.g. product placement, advergaming). In addition, a whole array of other qualitative, projective, 'playful' techniques could be used as well to uncover the beliefs, feelings, attitudes and motivations of those consumers who have difficulties with articulating them (such as making a drawing about an advertisement) (e.g. Donoghue 2000).

Furthermore, as mentioned earlier, it should be possible to measure preschoolers' affective advertising literacy, after they are externally stimulated to identify an advertisement's attempt to evoke certain emotions, and to become aware of their own emotional reactions to that attempt. This could be achieved directly by observing these reactions (such as body gestures, facial expressions) during advertising exposure – e.g., when, after intervention, they do not automatically exhibit the feelings anymore the advertisement wants them to experience, this may indicate the activation of affective advertising literacy – or even by measuring psychological-biological indicators (Adrian, Zeman, and Veits 2011). Finally, the *think-aloud* method may be used (Rozendaal, Buijzen, and Valkenburg 2012), whereby children are asked to verbalize their emotional reactions (which may also help them to become more aware of them, as an intervention on its own) during ad exposure, assuming that this is easier for them to articulate their beliefs about how the advertisement functions.

## **2.3.2 Elementary School Children (6-8-year)**

### **2.3.2.1 Cognitive, affective and moral skills**

In terms of cognitive abilities, elementary school (ES) children are thinking increasingly logical about social phenomena, and are ceasing to make inferences which are exclusively bound to one specific situation (Piaget 1929). Consequently, they start to acquire a more thorough understanding of abstract concepts (Jansson-Boyd 2010; John 1999), such as 'advertising'. This implies that the cognitive dimension of advertising literacy – both dispositional and situational – can be assessed by using more direct methodologies than game-play or proxy-information.

As concerns emotional development, ES children are still looking for external support to cope with emotionally charged events, but they are increasingly conscious about their own emotions, which they are now able to regulate in coordination with others' emotions (Saarni 1999). Furthermore, they start to understand the emotional 'scripts' society has consensually agreed upon (Buckley and Saarni 2013). Therefore, it seems justifiable to measure ES children's affective advertising literacy without implementing an intervention (as was suggested for preschoolers).

ES children are also developing a more comprehensive ToM, which means that they begin to get a notion of 'false-belief', that is, to understand that the mental states and beliefs of others may differ from their own beliefs and from reality in general (Perner, Kloo, and Stoettinger 2007; Premack and Woodruff 1978). In other words, they are becoming more adept at taking the perspective of advertisers and their intentions, and may now understand that advertisers can use morally inappropriate techniques to reach their commercial goals (e.g., by making unrealistic or false claims and representations). Moreover, it is generally assumed that during this period, children start to develop moral reasoning skills (i.e., moral realism) (Kurtines and Pimm 1983; Piaget 1929). Therefore, ES children should be able to morally judge advertising practices.

### **2.3.2.2 Past research methods**

A literature search identified two common methods for measuring cognitive advertising literacy among ES children. First, a couple of studies have used interviews (to assess this concept in a mostly

dispositional manner) (e.g. Oates, Blades, and Gunter 2002; Ward 1972; Owen et al. 2013; Spielvogel and Terlutter 2013; Bijmolt, Claassen, and Brus 1998; Wilson and Weiss 1992) .

Second, and most important, ES children's advertising literacy has frequently been measured (situationally) by using visual self-reports, with Donohue and colleagues (1980) being the first to introduce this method within advertising literacy research, and since then adopted by many authors (e.g. Bijmolt, Claassen, and Brus 1998; Grohs, Wagner, and Steiner 2012; Macklin 1985). With this method, children are asked questions from a standardized survey, upon which they are shown a set of images representing the answer options. Out of these depictions (usually of certain activities) they have to pick the 'correct' one instead of having to rely on verbalizations. In the study of Bijmolt et al. (1998), for instance, ES children were shown a TV commercial and then asked "What does the boy in the commercial want you to do?". To answer this question, each child had to choose one picture out of three possible options (of which the sketch of the shopping scene was the correct one). A similar setup has also been used for newer advertising formats, such as advergimes (e.g., Mallinckrodt and Mizerski 2007; Panic, Cauberghe, and De Pelsmacker 2013; Rifon et al. 2014).

Furthermore, some studies have used similar (visual) methods to assess ES children's mere recognition of advertising, for instance by showing them a website and asking them to point at the advertisement(s) (Ali et al. 2009); by presenting them with illustrations from both the advertisement and the television program in which it was inserted, and asking them to point at the advertisement scenes (Oates, Blades, and Gunter 2002; Wilson and Weiss 1992) or by exposing them to sponsors in a theme park, and consequently asking them to pick the brands they have seen from a list of logos (Grohs, Wagner, and Steiner 2012).

Finally, as was the case with preschoolers, no studies were found investigating affective and moral advertising literacy among ES children. Concerning the former, however, it should be noted that there is one study which combined face-to-face interviews (incl. standardized questions) with the observation of children's emotional reactions to an advergime based on facial expressions (to determine how challenged they were by the game) (Waiguny, Nelson, and Terlutter 2012).

### **2.3.2.3 Future recommendations**

Although past research among ES children only focused on cognitive advertising literacy, we argue that (based on their psychological skills discussed earlier) their affective and moral advertising literacy can be measured too. However, this should perhaps not be done with typical structured, standardized questionnaires, as children younger than seven years are believed to lack the reading and writing skills necessary to be directly questioned in an effective and systematic manner (de Leeuw 2011; Scott 2000). Similarly, as they can be considered premature in linguistic abilities and verbal comprehension (Borgers, Leeuw, and Hox 2000), they may not be fully capable of participating in (semi-)structured interviews (Scott 2000). Borgers et al. (2000) do believe that it is possible to interview ES children, but only with the utmost care. The 'safest' method they recommend is a short, qualitative open interview (e.g., a small focus group), preferably presented as a game or incorporating 'playing' tasks.

However, we would recommend against totally renouncing the measurement of ES children's advertising literacy using standardized questionnaires, as these can also be presented as visual self-reports, which may deal with the limitations of classic surveys. In particular, a visual representation will



concretize the verbally formulated questions and answer options and make the process of data collection less tedious for children. Consequently, there will be more cognitive resources left, which children can use to focus their limited attention on the survey (Borgers, Leeuw, and Hox 2000; Ólafsson, Livingstone, and Haddon 2013; Scott 2000). Moreover, this method has many advantages for researchers: questionnaires are quick, easy and cost-effective (Poels and Dewitte 2006) and may allow for the generalization of results and their comparison across studies.

To measure cognitive advertising literacy using visual self-reports, the many studies referred to in the previous section can serve as an example, especially when it comes to advertising or brand recognition (situational). Regarding the understanding of commercial intent, however, one should be more cautious with adopting existing measures. First, the number of illustrations presented to children (from which they are instructed to pick the 'correct' intent) must not be too small, as this makes it more likely for them to indicate the correct picture by mere guessing (chance effect) (Gunter, Oates, and Blades 2005) which could lead to overestimating children's advertising literacy (type II error). Second, the researcher has to make sure that the other, 'incorrect' answer options are indeed illustrations of activities that cannot be perceived as possible advertising goals. Extant research has been criticized for presenting multiple illustrations of actions that may perhaps not reflect the primary goal of advertising, but can nevertheless be perceived as possible consequences of being exposed to advertising (for an overview see Wright, Friestad, and Boush 2005).

Bearing the above in mind, it is perhaps better practice for future research to explore possible transformations of the available basic standardized questionnaires into simplified 'pictorial questionnaires'. In such surveys, the questions could be adapted to the linguistic and symbolic competences of the children, and Likert and semantic differential scale answer options could be verbally and structurally simplified and clearly visualized with playful images. For instance, to measure understanding of advertising intent, one could adapt and transform the items from the validated CALS-c (Rozendaal, Oprea, and Buijzen 2016; see more in next section on tweens). With regard to the answer options, Scott (2000) advises to use 'memory aids' to deal with young children's difficulties to remember (even a small battery of) answer options, for instance by first breaking down the classic 5- or 7-point Likert scales into two or three response options, eventually followed by asking the children to indicate the strength of their previous answer. Krcmar and Cooke (2001) found that this deconstruction allowed children as young as five years old to respond meaningfully to an otherwise complex 5-point Likert scale. These answer options can also easily be visualized (for instance by accompanying 'strongly agree' with two thumbs up, 'agree' with one thumb up, etc.).

As concerns the other two dimensions of advertising literacy, there are currently no validated, standardized scales available. To measure ES children's moral judgment of advertising, however, one could adapt (in the same way as described in previous paragraph) existing items of studies among adults, in which the respondents are generally asked how 'appropriate', 'fair' or 'manipulative' the used (covert) marketing tactic seems to them (Wei, Fischer, and Main 2008). As young children will most likely not comprehend such overly abstract concepts, and may not have a complete conception of (contemporary and new) marketing tactics (John, 1999), these items may perhaps be modified along the lines of Krcmar and Cooke's (2001) study on children's moral reasoning. These authors reminded children of an aggressive act, and asked them whether the act was right, wrong or in between (see

scale deconstruction above). Similarly, one could show them an advertisement (if situational) and offer them a simple explanation of the used advertising tactic (e.g. brand placement as 'hiding brands in TV series or films') and ask them how 'right' or 'wrong' they think this practice is.

However, note that such items primarily express people's advertising-related moral judgments, which are not directly indicative of the possession and actual use of moral advertising literacy. A possible way to investigate whether children have (dispositional) and use this 'moral radar' (situational) when judging advertising could be to have them envision 'moral dilemmas' (e.g., Bandura and McDonald 1963; Miller et al. 1996) focusing on the actions of the advertiser toward the consumer, and eventually supported with visual stimuli (e.g., Kurtines and Pimm 1983). The way children solve these dilemmas should clarify whether their reasoning strategies are of a moral nature or not.

The greatest challenge is perhaps to measure affective advertising literacy with visual self-reports. Inspiration to construct such a measure could be found in the literature on emotion regulation. Adrian et al. (2011) argue that when children are able to be aware of their emotions, to monitor them, and to report them, self-reports are the best way to assess a wide range of information about these emotions – this is also the method used most frequently to measure emotion regulation among ES children. In their 35-year review article, the authors list 28 studies using the self-report methodology among this age group, which future studies may adapt to measure emotion regulation in the context of advertising.

### **2.3.3 Tweens (9-12 year)**

#### **2.3.3.1 Cognitive, affective and moral skills**

Between the ages of 9 and 12 years, crucial developmental changes take place (John 1999). More specifically, children's thinking, language and reading skills develop towards an advanced level (Borgers, Leeuw, and Hox 2000; Jansson-Boyd 2010). Furthermore, as they address their memory more efficiently, tweens start to process information much more fluently. This allows them to reflect about consumer related affairs at a more complex and abstract level (Jansson-Boyd 2010; John 1999).

With regard to emotional development, tweens now acquire the ability to be aware of the multiplicity of emotions they can have toward the same stimulus. Moreover, they also gain the skill to express behaviors that are not in accordance with how they feel (Buckley and Saarni 2013; Saarni 1999), for instance by showing happiness when receiving a disappointing gift, or – in the context of persuasion – acting neutral when initially feeling highly aroused by an advertisement.

Finally, as tweens are shifting toward an 'interpretative' ToM, they get more skilled in identifying the influence of preference, bias and other aspects of subjectivity of people's thinking (Moses and Baldwin 2005; Pillow and Weed 1995). The latter implies a better assessment of the possibility that advertisers' use inappropriate or manipulative tactics to reach their commercial goals. Moreover, they should be more proficient in judging these tactics morally, as they start to develop a well-defined sense of value judgments such as fairness and justice (Kurtines and Pimm 1983; Piaget 1929).

In other words, it should be possible to measure most aspects of advertising literacy (incl. dispositional ad literacy) among tweens, with fewer methodological restrictions and necessary adaptations (than was the case for previous age categories).

### **2.3.3.2 Past research methods**

The extant literature has mainly applied two methods to assess tweens' cognitive advertising literacy. First, studies have used interviews to measure this concept (both situational and dispositional) (e.g., Blosser and Roberts 1985; Christenson 1982; Waiguny, Nelson, and Terlutter 2012; Wilson and Weiss 1992; Owen et al. 2013; Spielvogel and Terlutter 2013; Nelson 2016).

Second, the bulk of (more recent) studies have used verbal self-reports (mainly classic, self-administered questionnaires), usually within a classroom context. In general, these studies have asked tweens to indicate their advertising knowledge by means of a battery of items, using semantic differentials or Likert scales with a predefined set of response options (which were usually not illustrated). These questionnaires have been employed to measure – mostly situational – cognitive advertising literacy (e.g., Hudders, Cauberghe, and Panic 2015; Rozendaal, Buijzen, and Valkenburg 2009; Rozendaal et al. 2013; van Reijmersdal, Rozendaal, and Buijzen 2012; An, Jin, and Park 2014; Zarouali et al. 2016). This method has not been used to directly assess affective and moral advertising literacy, though related measures exist indicating tweens' affective attitudes toward advertising (e.g., Hudders, Cauberghe, and Panic 2015; Oprea and Rozendaal 2015) and moral judgments of advertising (e.g., Rose, Merchant, and Bakir 2012).

Noteworthy is that, despite the extensive use of questionnaires among tweens, there is currently only one validated self-report measure of advertising literacy (not only among this age group, but in general), namely the recent ALS-c scale by Rozendaal et al. (2016) (see next section). Most often, researchers have used personally created (and unvalidated) items fitting the context of their specific studies. As Ham, Nelson and Das (2015) argue, this practice has certain advantages, because it allows to fully map the multi-dimensional nature of advertising literacy. However, a major disadvantage could be that such items may not be valid and reliable because they are (usually) not created based on standard scale development procedures. In addition, the use of 'own' operationalizations has – at least partially – led to disunity in the use of measurement methodologies and, therefore, to limited opportunities to accurately compare across studies.

### **2.3.3.3 Future recommendations**

In accordance with past research, we confirm the suitability of using interviews and verbal self-reports to assess tweens' advertising literacy, as these methods align with their psychological skills and abilities.

Interviews are an interesting method to investigate children's knowledge, attitudes and evaluations in the context of advertising as they are rapidly acquiring the abilities needed for a successful verbal exchange (Borgers, Leeuw, and Hox 2000; Scott 2000). Especially in case of qualitative, explorative research, interviews have the powerful asset of encouraging children to talk freely, hence allowing their (advertising-related) thinking to unfold and reveal itself (Woodhead and Faulkner 2000).

With respect to verbal-self reports, it has been argued that tweens are indeed able to successfully process and respond to standard questions with a sufficient level of consistency (Ólafsson, Livingstone, and Haddon 2013; Scott 2000). This method has the advantages of (generally) being user-

friendly and economical, not only in terms of cost-effectively investigating phenomena on a large scale, but also in terms of using the respondent's cognitive resources (i.e., in the case of easily formulated closed questions) and consuming time (compared to interviews). Moreover, and as mentioned before, they facilitate comparability between answers or studies (Poels and Dewitte 2006).

However, one should still be careful with the formulation of questions and items because tweens' reading skills, language abilities, memory functioning and – perhaps most important – attention span should not be overestimated (Borgers, Leeuw, and Hox 2000; de Leeuw 2011). Therefore, the recommendations made previously for ES children (i.e., to visualize questionnaires as much as possible, and perhaps also using memory aids such as breaking down Likert scales) could also apply to tweens. Moreover, this would allow for a smooth comparison of results between both age groups.

In this respect, the Conceptual Advertising Literacy Scale for Children (CALC-c) of Rozendaal et al. (2016) seems most eligible to employ (or adapt), as it was validated among 8- to 12-year-olds. This instrument contains various underlying dimensions of cognitive advertising literacy as identified in the literature. However, for future research, two adaptations may be needed for this instrument. First, as the authors argue themselves, researchers should meet the challenge to adapt the scale to measure advertising literacy for formats other than TV commercials. Second, as the scale mixes up situational (e.g., 'Is this a commercial?') and dispositional (e.g., 'Are TV commercials there to make you buy the advertised products?') advertising literacy, researchers should consider whether they are interested in children's actual processing of a specific advertisement (situational) or their possession of knowledge and skills making the former possible (dispositional). Subsequently, the items can be adapted accordingly.

It is worth mentioning that in addition to the CALC-c, Rozendaal et al. (2016) also developed the Attitudinal Advertising Literacy Scale for Children (AALS-c). This instrument consists of subscales that may have a significant impact on children's processing of advertising, such as 'disliking of advertising' (the affective evaluation of advertising) and 'skepticism toward advertising'. However, in order to measure affective advertising literacy (as conceptualized by Hudders et al. 2017) – that is, their conscious awareness of emotional reactions to advertising and their abilities to suppress or regulate them – we must refer to the recommendation in the previous section on ES children, namely to plunge into the emotion regulation literature for questionnaires that can be adapted to the context of advertising.

Finally, compared to ES children, tweens' (abilities for) moral reasoning may be assessed more accurately than by asking them if and how they reflect on advertising (formats or tactics) in terms of 'right' or 'wrong'. That is, tweens may now have a clearer conception of abstract concepts such as 'appropriateness', 'fairness' and 'manipulativeness'. Therefore, it seems useful to measure the valence of their moral judgments related to advertising by means of the 6-item Inference of Manipulative Intent scale (IMI) (Campbell 1995). More specifically, one could use Rose and colleagues' (2012) adapted version of this scale, created for 8- to 10-year-old children to bypass literacy barriers, and including items such as "This ad was OK; it tried to get me to buy the product without trying to fool me" and "This ad was fair; it did not try to trick me". However, as these items indicate the specific direction of children's evaluation of an ad, rather than the possession or use of moral skills and abilities, future research should still come up with an actual measure for moral advertising literacy.

## **2.3.4 Teenagers (13+ year)**

### **2.3.4.1 Cognitive, affective and moral skills**

Around the age of 13, children start to have the cognitive capacity to process information in a more adult-like pattern. They can now engage in highly complex thinking and hypothetical reasoning, making them less bounded by concrete or observable aspects of a specific situation (Jansson-Boyd 2010). This also expresses itself in a more reflective way of thinking and reasoning about consumption (John 1999). Furthermore, their memory capacity is now nearly full-grown, and they are perfectly able to articulate their perceptions, opinions and beliefs on a wide range of (marketing-related) topics (de Leeuw 2011; Scott 2000).

As concerns emotional development, adolescents start to acquire a thorough comprehension of the different components of emotions (Pons, Harris, and Rosnay 2004). More precisely, they have developed the ability to engage in complex and sophisticated predictions of others' (subject or object) emotional responses based on both obvious and more subtle (inferred) cues (Rosenblum and Lewis 2003). Therefore, evaluating external stimuli (e.g., advertising) emotionally should pose no problems for them, even if the emotional appeal is characterized by a hidden and subtle nature (e.g., advergames).

At last, adolescents are able to judge the morality of actions as conforming to the views, expectations and conventions of society (Kohlberg 1976). They possess an advanced intuition to judge the appropriateness of another's actions, and to evaluate people who engage in unfair or manipulative practices that are based on moral beliefs different from their own (Chandler, Sokol, and Wainryb 2000).

In other words, it should definitely be possible to measure all dimensions of advertising literacy among teenagers (both dispositionally and situationally), with even fewer adaptations needed than was the case with tweens.

### **2.3.4.2 Past research methods**

Our literature search for measuring adolescents' advertising literacy yielded little results. Nevertheless, a handful of studies were found using verbal self-reports (e.g., Boush, Friestad, and Rose 1994; Mangleburg and Bristol 1998; Nelson and McLeod 2005; Verhellen et al. 2014; Zarouali et al. 2017) and interviews (e.g. Sandberg, Gidlöf, and Holmberg 2011) to measure both dispositional and situational cognitive advertising literacy.

Teenagers have received little scholarly attention in past advertising literacy research (compared to younger children) because they are considered less vulnerable and thus no priority group for academic exploration (Livingstone and Helsper 2006). Dorr (1986) argued that by adolescence, children possess a greater understanding of persuasive techniques that helps them "evaluate advertising claims sensibly and gain more control over the type and amount of influence commercials exert on them" (p. 52). However, we argue that this line of reasoning does not necessarily apply to new (online) advertising practices (see next section).

### 2.3.4.3 Future recommendations

To explore advertising literacy among teenagers one can use standardized questionnaires similar to those designed for adults, or verbal interviews (Scott 2000). However, it is still advisable to avoid complex question and item wording, as teenagers are still cognitively developing until they reach the age of around 16 (Borgers, Leeuw, and Hox 2000). This means that verbal self-reports and interviews may need some adaptations in order to avoid problems of literacy (de Leeuw 2011; Scott 2000).

Although little empirical research has been conducted among teens, we can still make some suggestions in terms of possible measurement methods for the various dimensions of advertising literacy. Boush et al. (1994), for instance, introduced an instrument to measure adolescents' dispositional beliefs about why advertisers use particular tactics. As this scale measures several (positive or negative) cognitive psychological aspects of persuasion (e.g., attention, cognition, memory, etc.), it is very suitable to measure important aspects of cognitive advertising literacy.

Then, with regard to affective advertising literacy, Friestad & Wright (1995) studied consumers' beliefs regarding the emotional psychology of commercial persuasion and how this influences them. They introduced a dispositional measure that assesses seven beliefs about the various roles that emotions fulfill in this context. These seven persuasion beliefs concern (1) the *difficulty* of eliciting emotions in advertising; (2) the *necessity* of emotions in the persuasion process; (3) the *influence* of emotions on affective and behavioral outcomes; (4) the *noticeability* of emotions as advertiser tactics; (5) the *effectiveness* of emotions as a psychological effect (6) the *sequence* (i.e., order) of emotional appeals during a persuasion episode; and (7) the *origin* of emotions in advertising – all of these beliefs have been formulated with bipolar labeled endpoints (see Friestad and Wright 1995). This instrument could be used for assessing the foundation of affective advertising literacy, as it thoroughly assesses people's insights and beliefs in the working and influence of emotions in advertising. However, as this scale only assesses the beliefs about emotional psychology on which consumers may base their evaluation and not the regulation of emotions as such, future research may want to dig deeper into the emotion regulation literature to develop scales that create a more thorough picture of an individual's actual affective advertising literacy.

Finally, to assess moral evaluations, the previously mentioned IMI-scale developed by Campbell (1995) is appropriate to use among adolescents (cf. tweens). Major adaptations might not be necessary, given that this instrument was developed and tested among adolescents and young adults.

As a last and more general recommendation regarding the current age group, we want to encourage scholars to conduct more empirical research on adolescents' advertising literacy. As mentioned earlier, it is generally assumed that younger children are more affected by and susceptible to advertising, while adolescents are supposedly less vulnerable to these persuasive effects. However, during adolescence, the persuasion-related abilities of teenagers are still developing (Boush, Friestad, and Rose 1994; Friestad and Wright 1994). This means that their knowledge of advertising techniques and persuasion strategies is still not entirely matured (Rozendaal, Buijzen, and Valkenburg 2010). This is particularly the case for embedded advertising formats (e.g., advergames), as they may have limited knowledge about these novel techniques due to a lack of practice with conscious coping (Verhellen et al. 2014). This could imply that teenagers are less able to critically reflect on advertising in the current

context, making them more vulnerable to persuasion. Therefore, we argue that they should certainly not be left aside in contemporary advertising research.

## 2.4 General discussion

As children are underdeveloped and relatively inexperienced as consumers, they are assumed to be more susceptible to advertising influence compared to adults. Therefore, it is important to investigate children's abilities to recognize, understand and evaluate advertising – generally referred to as advertising literacy – as a way to help them cope consciously and critically with the various advertising formats directed at them. Until today, however, researchers lack a clear, theory- and evidence-based overview of the methods that could be used to arrive at a suitable measurement of advertising literacy (Kunkel 2010) for children of different ages. Accordingly, the current article is built upon two main goals: first, to give an overview of the different measurement methods used in previous research for several age groups; and second, to formulate recommendations in terms of which methods and instruments are appropriate to use, taking into account children's psychological development (as delineated by their age category). By addressing these aims, we offer guidance to practitioners and scholars in their quest for suitable methods (for a summary, see Table 1).

With these recommendations, we mainly hope to establish more methodological uniformity in future research on regarding children's advertising literacy. Therefore we departed from a single yet comprehensive and well-informed definition of advertising literacy (Hudders et al. 2017), reflecting a theoretical framework that takes into account multiple types and dimensions that can be distinguished within this complex construct (i.e., cognitive, affective and moral aspects of situational and dispositional advertising literacy). Moreover, and as mentioned before, we formulated these recommendations for clearly demarcated age groups considering children's psychological development. Following these delineated suggestions, further research should generate more accurate and consistent findings and results that are systematically comparable across studies, ultimately leading to clearer contributions to the socio-political debate regarding children and their abilities to cope with advertising.

Apart from the specific recommendations, a number of more general suggestions for future research can be formulated, relevant to all age groups. First, it could be argued that although we focused on advertising literacy in particular, other related research areas, such as children's and adolescents' media literacy, could also benefit from the insights provided in the current article, as it departs from a general developmental perspective.

Second, it is essential for researchers to keep in mind that the advertising landscape evolves rapidly, and hence to keep pace with the recently introduced advertising practices that are different from traditional TV and print advertising. More specifically, they should be encouraged to adapt or develop methods to assess children's advertising literacy for the advertising formats characterized by an embedded, interactive and/or personalized nature.

Third, follow-up articles could focus on possible ways to align the suggested methodologies between different age groups. In particular, it would be fruitful to identify the aspects of advertising literacy that can be assessed with comparable methods among two or more consecutive age groups. In this way, children's development of advertising literacy can be tracked in a longitudinal manner.

Table 2-1 Summary of the recommended advertising literacy measurement methods

	Cognitive AL	Affective AL	Moral AL
<b>Preschoolers (3-5yo)</b>	<ul style="list-style-type: none"> <li>• Only situational (or proxy)</li> <li>• Game-playing                             <ul style="list-style-type: none"> <li>- Ad/brand recognition</li> <li>- Commercial intent</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Only situational</li> <li>• After intervention                             <ul style="list-style-type: none"> <li>- Observe body language</li> <li>- Psychobiological indicators</li> <li>- Think-aloud</li> </ul> </li> </ul>	/
<b>ES children (6-8yo)</b>	<ul style="list-style-type: none"> <li>• Careful w/ structured, standardized questionnaires or interviews</li> <li>• Better:                             <ul style="list-style-type: none"> <li>- Short, qualitative open interview (e.g., small focus group)</li> <li>- Incl. (game) playing tasks</li> </ul> </li> <li>• Also consider: visual self-reports &amp; more specifically: pictorial questionnaires                             <ul style="list-style-type: none"> <li>- break down scales</li> <li>- illustrate scale items</li> <li>- read questions aloud</li> </ul> </li> </ul>		
	<ul style="list-style-type: none"> <li>• Visual self-reports:                             <ul style="list-style-type: none"> <li>- Ad/brand recognition: extant studies</li> <li>- Commercial intent: avoid multiple choice w/ 'correct' answer → pictorial questionnaire recommended</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Pictorial questionnaires: emotion regulation literature</li> </ul>	<ul style="list-style-type: none"> <li>• Pictorial questionnaires for moral judgment</li> <li>• Moral dilemmas (illustrated) to determine moral AL (via reasoning strategies)</li> </ul>
<b>Tweens (9-12yo)</b>	<ul style="list-style-type: none"> <li>• Interviews (qualitative)</li> <li>• Verbal self-reports                             <ul style="list-style-type: none"> <li>- yet consider pictorial questionnaires (cf. ES children)</li> <li>- adopt/adapt:</li> </ul> </li> </ul>		
	<ul style="list-style-type: none"> <li>• CALS-c (Rozendaal et al., 2016)                             <ul style="list-style-type: none"> <li>- adapt i.f.o. (new) ad format</li> <li>- situational - dispositional AL?</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• AALS-c (Rozendaal et al., 2016) to measure 'attitudinal AL'</li> <li>• To measure affective AL: emotion regulation literature</li> </ul>	<ul style="list-style-type: none"> <li>• IMI-scale (Campbell, 1995; Rose et al., 2012) to measure appropriateness judgement</li> <li>• To measure moral AL: develop measure</li> </ul>
<b>Teenagers (13+yo)</b>	<ul style="list-style-type: none"> <li>• In general: follow extant studies ...but more research needed (especially in the context of embedded ad formats)                             <ul style="list-style-type: none"> <li>- Interviews</li> <li>- Verbal self-reports (standardized questionnaires, cf. tweens)</li> <li>→ yet adaptations may still be needed (avoid complex formulation)</li> </ul> </li> </ul>		
	<ul style="list-style-type: none"> <li>• cf. tweens</li> <li>• e.g., Boush et al. (1994): disp. persuasion tactic beliefs</li> <li>• see also Ham et al. (2015)</li> </ul>	<ul style="list-style-type: none"> <li>• cf. tweens</li> <li>• e.g., Friestad &amp; Wright (1995): disp. tactic beliefs regarding the use of emotions</li> <li>• = foundation for developing measure for affective AL (combine with emotion regulation literature)</li> </ul>	<ul style="list-style-type: none"> <li>• cf. tweens</li> </ul>



Fourth, it was noted that to measure children's advertising literacy most quantitative studies use instruments that were not developed according to standard procedures. Therefore, there are ample opportunities to create valid and reliable scales to measure the many facets of advertising literacy (for children of different ages, and for different advertising formats). This especially so for affective and moral advertising literacy, for which currently no direct measures exist.

Finally, there are also many opportunities to examine these barely explored dimensions of advertising literacy using qualitative research. The currently predominating quantitative approach has many advantages, but may be less suitable to examine children's beliefs regarding advertising (Oates, Blades, and Gunter 2002). Therefore, researchers are encouraged to use face-to-face interviews or focus groups to obtain richer insights in the reasoning strategies children use when (critically) evaluating advertising, and especially the newer ad formats that make use of implicit tactics.

## 2.5 References

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### **3 EXPLORING CHILDREN'S MORAL ADVERTISING LITERACY**

#### **Abstract**

Despite that contemporary advertising is decreasingly about persuading children through persuasive messages and increasingly about influencing them through implicit tactics, little attention has been given to how children may cope with advertising by understanding and evaluating the new advertising tactics. Drawing on 12 focus groups entailing 60 children of ages 9–11 years, this article investigates children's advertising literacy by exploring their knowledge and judgements (and accordingly reasoning strategies) of the new advertising formats. In particular, insight is provided into children's critical reflection on the tactics of brand integration, interactivity and personalization in the advertising formats brand placement, advergames and retargeted pre-roll video ads on social media. It is shown that while children not spontaneously do so, they appear to have the ability to understand these tactics and form judgements about their (moral) appropriateness, thereby considering a wide range of societal actors.

**Keywords:** Advertising formats, advertising literacy, advertising tactics, children, focus groups, moral reasoning, persuasion knowledge, qualitative research

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#### **3.1 Introduction**

Since the early 1970s, much research has been conducted on children's advertising literacy, by examining whether they may cope with advertising by recognizing and understanding the persuasive messages in classic TV commercials (Wright et al., 2005). More than four decades later, however, children are targeted by many other advertising formats that differ from TV commercials in numerous ways and primarily in their use of implicit tactics. Specifically, these formats make clever use of new media features by increasingly integrating advertising in entertaining media content (e.g. brand placement), encouraging consumers to actively engage with the commercial content (e.g. advergames) and tailoring that content to individual consumer preferences through collecting personal information (e.g. retargeted pre-roll video ads; Hudders et al., 2015).

Perhaps, the most pronounced difference between traditional and new advertising formats is the relative importance they attach to spreading a commercial *message* versus making use of persuasive *tactics*. Classic advertising formats (such as TV commercials) primarily aim to persuade through factual or propositional messages, for example, by focusing on product quality and features (Moore and Rideout, 2007). Additionally, this goal is reinforced using various tactics such as repeating

these messages, linking them to positive stimuli such as humour and embedding them in editorial content (Rozendaal et al., 2011a). The new advertising formats (such as recent forms of brand placement, advergames and retargeted advertising), however, tend to depart from those tactics – though these have become more subtle in nature. That is, rather than striving to inform about products in the first place, the new formats primarily attempt to effectuate better recall or attitudes through prolonged and repeated exposure to brands or products (Auty and Lewis, 2004; Balasubramanian et al., 2006; Hang, 2015) and through implicit persuasion based on a 'positive affect transfer' from the increasingly amusing and captivating media content to the brands or products it integrates (Nairn and Fine, 2008). In other words, tactics are employed that function mainly at a preconscious level, tacitly affecting children's preferences for brands or products. This implies that for children to cope with advertising, it may still be relevant to recognize and understand the commercial *messages* but also increasingly useful to be aware of the persuasive *tactics* and to know how they function.

It is all the more important to focus on advertising tactics as the 'covert' or 'stealth' manner in which they attempt to persuade children has raised various new ethical questions (see, for example, Nebenzahl and Jaffe, 1998), for example, about how acceptable it is to influence them without their awareness or to use their personal information for marketing purposes. These concerns, however, are primarily put forward by adults, while little is known about whether and how children themselves reflect on such matters.

This study contributes to the literature by investigating what children know about the new advertising tactics, how they evaluate them and what reasoning strategies they use to substantiate their judgements. Departing from a child-centric approach (see Lawlor and Prothero, 2008), this study is based on 12 focus groups having allowed 9- to 11-year-olds to express their knowledge, judgements and correspondent reasoning regarding the contemporary advertising tactics.

## **3.2 Literature review**

### **3.2.1 Children's knowledge of new advertising tactics**

Advertising literacy can be defined as the ability to recognize, understand and evaluate advertising (Malmelin, 2010). This type of literacy primarily relies on persuasion knowledge (also referred to as cognitive advertising literacy), which consists of people's beliefs about advertisers' motives, strategies and tactics and about the ways to aptly cope with these. This was first described by Friestad and Wright (1994) in their Persuasion Knowledge Model (PKM), which has since then been the dominant framework to study minors' advertising literacy (Wright et al., 2005). From this (mainly quantitative, experimental) research, several components of cognitive advertising literacy have emerged (see Rozendaal et al., 2016), though most of these studies have limited the operationalization of this concept as the recognition of advertising (i.e. differentiating advertising from other media content) and the understanding of advertising's selling intent (i.e. that advertising aims to sell products; Rozendaal et al., 2011a,b).

Given the original definition of persuasion knowledge (stressing tactic beliefs), it is somewhat remarkable that few studies have adopted the understanding of persuasive tactics (that advertisers use to change consumers' attitudes, cognitions and behaviours) in studying children's advertising literacy.

There is one study, though, in which Freeman and Shapiro (2014) have examined 8- to 12-year-olds' knowledge of various contemporary marketing tactics. Using an online survey, children were presented 10 tactics, of which 6 were explicit tactics (such as having a celebrity use certain products) and 4 implicit tactics (such as giving certain products to popular kids). Consequently, they were asked whether they think that companies actually use these tactics to get them to notice, learn about or buy their products. Not surprisingly, the children were found to be much less aware of the implicit tactics than of the explicit ones.

However, to cope with advertising, it is not sufficient to possess the knowledge and skills to *recognize* an advertising tactic as such, as the rather objective information it generates (e.g. noticing an actor repeatedly snacking M&M's with the front of the package directed at the camera and concluding that this act must be brand placement) does not directly inform a subjective evaluation of the tactic. To arrive at such an evaluation, the PKM states that people first need to form beliefs about the tactic's *effectiveness*, as based on their beliefs about the psychological states and processes that marketers intend to establish in their targets (as 'psychological mediators' between the marketer's persuasion attempt and the consumer's final actions). For instance, after having identified brand placement for M&M's in a children's movie, a viewer may form or invoke the belief that this practice is effective to persuade this target group, as it repeatedly shows brightly coloured candy in a fun context, which may easily translate into positive feelings (and a craving) for the promoted snack. Furthermore, this individual may believe that this tactic is all the more effective, as it integrates the M&M's seamlessly in the storyline and images of the movie, bypassing any possible irritation and resistance children may have towards the commercial content. This perception of the tactic's effectiveness may consequently form the basis on which it can be judged, for instance, in terms of appropriateness (see below).

### **3.2.2 Children's judgement of new advertising tactics**

The PKM claims that consumers pursuing 'valid' attitudes about a persuasion attempt will need to judge the used tactic and, in particular, its *appropriateness* (based on the relevant tactic beliefs, for example, about its effectiveness; Friestad and Wright, 1994). In other words, if we want children to form a well-advised evaluation of an ad (and the brand or product it promotes), they will not only (first) need to recognize the used tactic and estimate whether it is effective (see previous section), but they will also (consequently) have to judge its appropriateness, for example, by forming an opinion about whether it is fair or rather manipulative to use an effective tactic in its specific context.

However, it is only since recently that studies (conducted among adults) are taking into account individuals' perception of the appropriateness of (implicit) marketing tactics and acknowledge its important role as a moderator in the relation between cognitive advertising literacy and brand evaluations (e.g. Nelson et al., 2009; Wei et al., 2008; Yoo, 2009). Yoo (2009), for instance, has demonstrated that people having been made aware of the online keyword search ads tactic (i.e. by telling them that companies pay search engines to favour sponsored results) were less inclined to click on such ads *if* they regarded this practice as unacceptable – this negative effect was attenuated when perceived as fair.

Research among children also increasingly acknowledges the role of advertising-related evaluations and attitudes. This has been motivated by the assumption that children are not able (due

to their limited cognitive abilities and resources) nor motivated (due to the affect-based nature of contemporary advertising) to elaborately process advertising in a cognitive, critical manner; therefore, it is argued that children can only 'defend' themselves against advertising when relying on 'low-effort, attitudinal mechanisms' (Rozendaal et al., 2011b: 334). In empirical practice, these attitudinal evaluations are usually assessed by asking children about the extent to which they think advertising is unrealistic, untruthful and dislikeable (see, for example, Rozendaal et al., 2016). In this view, children scoring high on these measures are assumed to have a high 'attitudinal advertising literacy', as they are more likely to resist persuasion by immediately dismissing an advertisement when recognized as such.

In other words, the available research among children departs merely from their attitudes towards advertising in general and its role as a reactive defence. Therefore, it is not yet known whether and how children may cope with advertising in a better-substantiated and critical way, namely, by evaluating the appropriateness of the specific tactics used in the various new advertising formats.

### **3.2.3 Children's reasoning strategies in judging new advertising tactics**

Note that the studies mentioned in previous section investigated merely the valence (i.e. positive or negative) of people's advertising-related judgements and not how these evaluations were established. More specifically, they did not reveal which effectiveness beliefs were taken into account in judging the tactics' appropriateness and the reasoning strategies involved to arrive at such evaluations. Therefore, the question remains: *why* did they perceive the advertising tactics as (in)appropriate?

According to Friestad and Wright (1994), an appropriateness judgement is formed when consumers ask themselves whether the perceived tactics and their intended psychological functioning are *normatively* or *morally acceptable*. That is, in light of what consumers may expect from their (or another's) relationship with the advertiser, is it fair, respectful or rather manipulative to use certain tactics? More specifically, is this the case when taking into account one self's or others' abilities to recognize these tactics and to cope with them? For instance, believing that an advertiser is aiming for positive attitudes towards the brand by embedding it in an entertaining children's TV programme, an individual may conclude that this tactic is not only effective but also morally inappropriate, stemming from the conviction that children are too cognitively immature to identify the commercial content, leaving the door wide open for persuasion without their conscious awareness.

#### **3.2.3.1 Kohlberg's moral stage theory**

At first sight, it may seem surprising that the reasoning strategies behind children's judgements of advertising tactics have not been studied yet, as the more than two-decades-old PKM already gave an impetus for investigating children's development in abilities to use their tactic knowledge and beliefs for morally assessing the appropriateness of marketing tactics. Moreover, research on children's moral reasoning has evolved considerably since the publication of the PKM (see Lourenço, 2014). Nonetheless, most of these studies are still essentially based on the developmental stages proposed by Kohlberg (1984), through which moral thinking evolves linearly, from a focus to the self to a focus on the other. More specifically, as people develop, their judgement of an action's fairness will first be

determined by whether the action (1) is perceived as punishable or (2) fulfils one's own needs; at a later age, by whether the action (3) benefits known others or (4) dutifully maintains the social order; and finally by whether the action (5) is in accordance with rules agreed upon by society or (6) consonant with universal ethical principles, for example, justice and human rights. There is no agreement on the approximate ages people usually reach certain stages, though, in general, studies show that as children grow older, they increasingly judge actions by taking the perspective of others, considering their motives and intentions (e.g. Krömer and Cooke, 2001).

At a second glance, it is perhaps not that surprising that moral reasoning theories such as Kohlberg's have not been applied yet in studying people's appropriateness judgements of advertising, as the moral stage they find themselves at is usually determined by confronting them with hypothetical moral dilemmas, asking how a certain actor should act in a certain situation (and then analysing the reasoning behind their answers). In the context of (contemporary) advertising, however, it is not that evident to determine who are the relevant actors (and their motivations and intentions), which are their (intended, psychological) actions and the rules and conventions that may apply to them.

There is some research, however, on the extent to which young people's dealings with new media involves moral or ethical considerations. Flores and James (2013), for instance, drew on Kohlberg's stage theory to explore youngsters' thinking about the online participation in, for example, social networks and games. More specifically, they sought to uncover youth's *target* of thinking when considering the possible consequences of their online actions. Therefore, they made a distinction between individualistic, moral and ethical ways of thinking, involving the consideration of the potential effects of one's actions, respectively, for the self (e.g. in terms of gaining rewards or avoiding costs), known others and unknown others. Nevertheless, this study still departs from the consideration of participants' own (hypothetical) actions and not of the actions of others (such as advertisers).

### **3.2.3.2 Turiel's Social Domain Theory**

It must be added, though, that Kohlberg's approach has been steadily losing ground to the Social Domain Theory (SDT; Turiel, 1983) as the dominant paradigm in the field of moral development (Lourenço, 2014). The SDT basically arose out of criticisms on moral stage theories, arguing that social events can be interpreted from more than a single stage (and the perspective it is defined by). In brief, the SDT states that people may judge social situations from three domains: (1) the psychological domain (pertaining to consequences for the self, identity and personality), (2) the social conventional domain (referring to consequences for the social organisation/coordination, based on rules which are contextually relative and dependant on authority) and (3) the moral domain (considering fairness, justice, rights and welfare, applicable in any context, independent from rules and authority). Despite its obvious commonalities with the moral stage theories, this typology has the advantage that a single but multifaceted social action can be judged across multiple domains, regardless of age (as each of these domains are assumed to be 'present' even in the youngest children). For instance, one may not only judge free applications such as Facebook positively because it is free and gives a sense of authentic identity or personality (in the psychological domain) but also mitigate this evaluation because such apps may cause uncertainty pertaining to the commercialization of social interaction (in the social conventional domain) and a breach of social networkers' privacy through personalized advertising (in

the moral domain). Thus, notwithstanding the assumed discrepancies between the moral stage theories and the SDT, both theories seem useful to analyse people's reasoning strategies for judging advertising tactics.

### 3.2.4 This study

The literature review exposes a severe limitation in the existing studies on children's advertising literacy. In particular, despite advertising's persuasive power having shifted from messages to tactics, none of these studies has thoroughly investigated children's understanding of the new persuasive tactics. Consequently, it is also not known what tactic knowledge and (effectiveness) beliefs children base themselves on to make possible evaluations of those tactics and what is the nature of the reasoning strategies underlying their judgements. It is paramount to address these gaps, because in order to critically cope with an advertisement, it is necessary to make a (moral) judgement of the appropriateness of the used tactic. Therefore, following research questions are formulated:

*Research question 1.* What do children know about the new advertising tactics?

*Research question 2.* How do children judge the new advertising tactics?

*Research question 3.* What are the reasoning strategies underlying children's judgements of the new advertising tactics?

As mentioned earlier, children's advertising literacy has primarily been studied using a positivistic, quantitative and experimental approach, usually based on adults' preconceived ideas of the specific knowledge and attitudes children need to successfully cope with advertising. The research questions addressed in this study are, by contrast, mainly focused on exploring children's own subjective viewpoints of (and experiences with) the new advertising tactics. Therefore, qualitative methods seemed most appropriate to answer them.

## 3.3 Method

### 3.3.1 Research population

This study involves 60 respondents, recruited in four different schools in Flanders, Belgium. The participants were spread over 12 single-gendered focus groups (6 boys and 6 girls), each consisting of 5 children from the last two grades of primary school (indicated in the 'Results' section as 5G = 5th grade, ages 9–10 years, and 6G = 6th grade, ages 10–11 years).

These grades entailing 9- to 11-year-olds were chosen because of the cognitive and social capabilities needed to partake in this study. More specifically, as it is necessary to *understand* before being able to *judge*, the participants needed to have a rudimentary comprehension of advertising and the social ability to morally reflect on it. Hence, this age range was selected as it is generally found that from the age of 8 years, children are capable to recognize and understand TV advertising and their commercial intent (Carter et al., 2011; Kunkel et al., 2004; Young, 2003). Moreover, it is also from this age onwards that children develop a more complex, interpretative Theory of Mind (ToM). This refers to

the ability to understand and take into account one's own and other people's mental states, which is essential for moral reasoning (Carpendale and Chandler, 1996; Perner and Lang, 1999).

The method of focus groups was chosen because of its interactive nature, stimulating participants to listen and take others' perspective. The groups were deliberately kept small and were composed of children who already knew each other. This should have created a more relaxed environment, as this configuration allowed them to elaborate on their experiences and opinions in the comfort of being among familiar faces, '[...] as opposed to being inhibited by one-to-one interviews with an adult researcher' (Mallalieu et al., 2005: 55). Furthermore, the groups were kept homogeneous with respect to gender (due to differences in communication styles between boys and girls) and restricted to same-grade students (to avoid domination of older children; Scott, 2000). Finally, as it is crucial to attune focus groups to children's developmental needs and abilities (Gibson, 2012), child-friendly probing and eliciting techniques were implemented.

### **3.3.2 Procedure**

Prior to conducting this study, approval was obtained from the ethical review board of the researchers' university faculty, and parental consent was granted for all the participating children. The focus groups took place in December 2015 in a classroom setting. Five children, either boys or girls, were handpicked by the teacher – whom we instructed to make a diverse selection and to avoid picking only the most eloquent pupils, to ensure that various and possible divergent experiences and opinions could be addressed and discussed. The remaining classmates were given a lecture about advertising literacy in another place. None of these children had established a relationship with the researchers prior to the study.

The focus groups were conducted by the first two authors of this article (the first one a doctoral researcher and the second one a PhD), which were both male, full-time employed as researchers at a Flemish university, and experienced in conducting qualitative research. They were both present as moderators during the discussions: the first guided the focus group, while the second offered assistance and kept an eye on the well-being of the children. The teacher was not present during the focus group but did help us with the practical part, by granting us access to a private room with tables, chairs and writing material.

The focus groups were structured (with a topic guide) into three main parts: an introductory talk (5 min), questions about knowledge and understanding (20 min) and about their judgements (20 min).

In the first part, we formally introduced ourselves to the participants as university researchers, aiming to talk with them about the new advertising formats for about an hour. In addition, we underlined the informal character of the focus groups by reading the children three discussion 'rules' from a poster: 'you are the experts, we're here to listen', 'this conversation is not a test' and 'you can say whatever you want but make sure everyone gets a chance to speak'. Consequently, we told them about our intention to make an audio and video recording of the focus group, and asked them if they could agree with that (no one objected). Finally, we proposed the children to introduce themselves, by asking them to create name cards and put it in front of them. Here, we tried to create an involved and trusting atmosphere by first presenting ourselves more informally, that is, by mentioning our name, occupation

and a hobby. One by one the children presented themselves in a similar fashion (e.g. 'I'm Michael, I'm from [school] and I love gaming').

In the second part, we informed the children that they were about to watch three videos and that after each video, we were going to ask them a couple of questions. In this way, we probed for the children's knowledge and understanding of new advertising tactics, as each of the three videos illustrated a different advertising format (relying on the tactics of, respectively, integration, interaction and personalization) (see Appendix A). The first video showed a fragment of 'The Smurfs' movie (Gosnell, 2011) in which a Smurf fell into a jar of M&M's and then had lengthy conversations with a plush M&M's doll (brand placement). The second video showed a young girl playing with a Kellogg's Froot Loops cereal game (advergame). The third video showed a girl visiting the Lego website and then looking up a video about kittens on YouTube, on which she is exposed to a Lego video ad before being able to watch the video she actually selected (pre-roll video advertising). After each video, we asked them to describe and explain what they saw. When none of the children made the link with advertising, we carefully explained this to them. As new advertising tactics are rather complex to explain, we used low-key vocabulary, by explaining brand placement as 'advertising "hidden" in a movie or TV show', advergames as a format 'in which you "play" with advertising' and personalized advertising as a format 'that looks in to your online "diary" to show you advertising for the things you like'. In this part, we already probed for a first reflection on the different tactics by asking them questions such as 'Do you think it is right that advertisers look into your internet diary for making advertisements?'

After a 5-minute break, we further elicited the children's reasoning by showing them three different comic scenarios that captured possible dilemmas specific to the new advertising tactics (see Appendix B), contrasting their advantages and disadvantages. The first comic showed a boy, having just found out that the series he had watched contained 'hidden' advertising (brand placement) and expressing a dislike of this practice; on which the father replied that this is better than interrupting the series for an ad break. The second comic showed a boy arguing that the girl playing an advergame is being manipulated, on which the girl replies that she could not care less because the game is fun and free. The third comic showed a girl finding it 'scary' that YouTube has looked into her 'internet diary' for showing her a retargeting pre-roll video ad for Lego, on which the mother replies that it is a good thing to get advertising for the things one likes. After each comic (read in silence), we asked the children to describe what they saw. Subsequently, we asked them questions such as 'Why does the girl in the comic say that she's scared about others knowing things about her?' and 'With whom do you agree, the mother or the girl?'

The conversations were recorded (both audio and video) and afterwards transcribed and coded to facilitate analysis of the data. These data were further informed by the field notes made by the assistant during and after the focus groups.

### **3.3.3 Data analysis**

This study analyses its data from a grounded theory perspective (Glaser and Strauss, 1967; Strauss and Corbin, 1990) by moving the focus from developing categories of information (open coding) to interconnecting those categories (axial coding) to producing a set of general themes that emerged (selective coding). This process was facilitated using the NVivo 11 software for qualitative data analysis.



In the first stage, two coders independently developed a coding scheme through coding the first six focus groups. We started from our interpretation of the voiced thoughts of the children and used the topic guide to organize the codes (etic coding). However, we also let the phenomenological experiences of the children emerge into our scheme (emic coding). After a first stage of coding, we compared both schemes. The etic approach divided the codes into three main categories, referring to the three different advertising formats (brand placement, advergaming and personalized online video advertising) and made further subcategories based on knowledge (e.g. 'tactic understanding') and evaluation (e.g. 'appropriateness judgments'). From the emic approach emerged two additional categories that seemed essential to fully answer the research questions: 'explicit versus implicit influence of advertising' and 'social privacy'. The first refers to the finding that children often questioned the influence of embedded advertising (which had implications for their judgements of advergaming and brand placement). The second pertains to children's frequent referrals to privacy vis-à-vis other people (especially family) rather than vis-à-vis third parties (i.e. advertising companies; which had consequences for their judgements of personalized advertising).

In the second stage, we not only coded all the focus groups with the coding scheme as developed in the first stage but also created subcategories under 'knowledge' and 'judgement' (see Table 1 for the final coding scheme). We also compared children's input according to gender and age but found no clear differences.

*Table 3-1 Coding scheme*

<b>Main code</b>	<b>(Sub)categories</b>	<b>Subcategories (examples)</b>
1. Brand placement	Knowledge	
2. Advergaming	Recognizing advertisement	Seeing difference between media content and advertising
3. Personalized online video advertising	Understanding advertising tactic	Perceived effectiveness
	Recognizing source	Who made the advertisement
	Judgment	
	Appropriateness	Intrusive, privacy violation
	Experience	Cool, fun, annoying

In the final stage, we combined the categories into a set of themes that were the most central for answering our research questions: (1) knowledge about advertising in general, (2) difference between 'understanding' and 'the ability to understand', (3) questioning the implicit influence of brand placement and advergaming, (4) unfamiliarity to online personalization, (5) biased judgement of brand placement and advergaming, (6) individually motivated judgement, (7) moral judgement and (8) social privacy issues. Each of these themes will be discussed in depth in the 'Results' section.

## 3.4 Results

### 3.4.1 Children's knowledge of contemporary advertising formats and techniques

#### 3.4.1.1 Recognition

In general, the children did not seem vigilant about the possible presence of advertising in media content. When they did notice the integrated commercial elements (in the case of brand placement and advergames), however, it was not always considered to be advertising. For instance, when asking them why The Smurfs movie featured a Smurf falling into a bowl of M&M's, the children often referred to the candy's connection to the film plot and characters, for example, 'Because the M&M's are also blue' (Connie, 5G).

With regard to personalized advertising (which was not integrated in media content here), in contrast, the children had little difficulty to recognize the advertisement as such. Few children immediately understood, however, that the advertisement was based on previous browsing behaviour.

#### 3.4.1.2 Understanding and the ability to understand

Once we informed them of the presence of advertising, we asked the children how they think the tactics work. In general, most of them seemed to understand the most basic function of advertising and its tactics, namely that by exposure to the advertised product (being presented in a positive manner) consumers will be more likely to purchase (or ask their parents for) that product:

Wilson (6G) on brand placement: Because Grumpy Smurf finds them [M&M's] tasty, maybe you'll try them too. It is just like tastings in the supermarket.

Tina (6G) on advergames: That parrot takes them [Froot Loops], so you see them, want to taste them and ask for them.

A small number of children, however, also demonstrated knowledge of the advertisements' persuasive intent – as based on their beliefs about the psychological mediators addressed by brand placement and advergames – by spontaneously explaining how the mechanism of 'positive affect transfer' works:

Tim (5G) on brand placement: Because the M&Ms appear in a fun movie, children think M&M's should also be nice. And then they will ask their parents if they can also have them.

Heather (6G) on advergames: If the game is fun, you maybe think Kellogg's are tasty too and then you might go buy it.

With regard to the retargeting pre-roll advertisements prior to YouTube videos, it was clear that most children had not previously reflected on the specifics of personalization – notwithstanding that many of them had already experienced the – in their phrasing – 'weird' occurrence of being targeted

with advertising based on their previous Internet browsing behaviour. For instance, Jasmine (5G) remembered, 'I surfed for clothes and then, on YouTube, I wanted to see a video, and all of a sudden I see advertising for clothes! I thought to myself, what is going on here?'

Nevertheless, when we later explained to them how the tactics work, nearly all of the children understood and spontaneously brought up other occasions in which they were confronted with these tactics. Wilson (6G), for instance, recalled the latest Bond movie, 'In Skyfall he [James Bond] drank Heineken, and Heineken has paid for that too'. Some of them also impromptu mentioned the advantages of integrated advertising over traditional TV commercials: '... most people go for a toilet break, or they just zap away, but here [referring to brand placement] they just keep on watching the movie' (Stacey, 5G).

#### **3.4.1.3 Perception of effectiveness and preconscious persuasion**

Despite their quick grasp of how the new tactics function, few children were convinced of their effectiveness. In general, they seemed to believe that for an advertisement to be effective, one first has to consciously notice the advertisement. In other words, they did not immediately acknowledge the mechanism of 'preconscious persuasion'. Consequently, as (subtle) brand placement and advergames thrive on persuasion through implicit techniques (such as positive effect transfer), these advertising formats were usually not considered very effective:

Hannah (6G): I don't know why they pay for appearing in the movie, as nobody notices it anyway.

Jacob (5G): As long as we don't know it is advertising, we're not going to buy it.

Joyce (6G): It's no use to hide advertising in a game because most children do not think about that. They should just tell it clearly.

Similarly, as most children had not yet reflected on the psychological effects of retargeting (such as implicitly recapturing consumer interest), they initially perceived personalized video ads as no more effective than TV commercials. The more prominent manifestations of brand placement, however, were mostly seen as highly adequate, as the children could recall many episodes in which they did consciously notice placements for 'high energy density food' which directly made them crave for these products. The following section shows that these beliefs are not without consequences for how these formats and techniques are evaluated.

## **3.4.2 Children's judgement of contemporary advertising formats and techniques**

### **3.4.2.1 General evaluation of the format**

Initially, children's evaluation of the new advertising tactics seemed largely determined by the way they experienced the respective formats. Hence, as brand placement and advergimes usually integrate advertising in a fun and immersive context, most of the children evaluated these formats positively and showed indifference towards the used tactics. See, for example, David and Alex (6G) on advergimes:

David: I do not care if I play such a game. I just like to play it.

Alex: That's true, for me too.

David: I just keep on playing.

Alex: Even if you actually know you play for advertising.

Noteworthy here is that they often liked brand placement and advergimes for the same reasons they find traditional advertising formats annoying, that is, because integrated advertising formats do not interrupt media content. Analogously, they usually felt irritated by pre-roll video advertising because it keeps them waiting for the videos they have actually looked up.

### **3.4.2.2 First thoughts on the tactics**

After carefully explaining the advertising tactics, the children's first reaction was often that these techniques are 'cool', 'special' and 'weird' (the latter reaction especially occurred in the case of personalized advertising). They frequently added that it is clever of companies to use such techniques, and, remarkably, that it must be a good thing in terms of their profits. Furthermore, some thoughtful remarks were made about the extent to which the contemporary formats are able to generate useful information about the advertised brands or products. In the case of brand placement and (especially) advergimes, they acknowledged that little objective information is given about product quality. In that respect, Steven (5G) prefers the classic commercial over brand placement: '... in a commercial break, they tell you where you can buy it [the advertised product], and how much it costs. But in a series they just hold it, and you know nothing about it'.

In the case of personalized advertising, several children liked the idea of getting only personally relevant information, yet some of them also remarked that by getting the same (or similar) advertisements over and over again, they are prevented to learn about new products:

Lisa (6G): ... if you only get advertising for the things you like, you can't see new things.

Rob (6G): Sometimes I want to get to know something else in an advertisement too, you know.

Note that when formulating these first thoughts, the children assumed a variety of perspectives. For instance, they mentioned the clever ways of gaining profit, that is, from a company viewpoint, and argued that the new advertising formats give little objective or new information, that is, from the role of consumers. This ability to switch perspectives is necessary to make judgements on the appropriateness

of advertising tactics and especially when these judgements involve social conventional, moral or ethical reasoning (see, for example, Turiel, 1983). These assessments and the rationale behind them are further discussed in the following paragraphs.

### 3.4.2.3 Judgement of the appropriateness

Even after having the new tactics explained to them, many children seemed to remain indifferent towards brand placement and advergaming. This indifference does not only stem from the overwhelmingly entertaining and immersive experiences these formats deliver (see section 'General evaluation of the format') but also to a great extent from the prevailing conviction among children that advertising cannot persuade if it remains unnoticed (and that it is not effective if it does not succeed in making people actually purchase or consume the advertised products; see section 'Perception of effectiveness and preconscious persuasion'). Consequently, most of the children had few issues with the appropriateness of these formats:

Emily on brand placement: I don't think that small children that watch it, will think 'oh, that's advertising, I want to buy that too'.

Tina (6G) on advergaming: ... actually I don't realize it at all that it is advertising too, so I don't think that that it pays off. If it's a fun game, it doesn't really matter.

However, when we encouraged the children to reflect more intensively on the possibility of being persuaded on an implicit level, and when the children acknowledged this mechanism, many of them eventually judged this practice as deceptive – especially when it leads to buying things (or pressuring parents to do so) that were not previously desired or that are regretted later. Rob (6G), for example, agreed with the boy (in our comic) who 'does not like that they hide advertising in TV series', because '... you should buy things on your own accord'. Tim (5G) remembered after having watched the Smurfs movie at home, he asked his parents for M&M's without realizing it appeared in the movie, and now thinks '... that is a little bit deception. It is like they are playing tennis with your mind'. Frank (5G) agreed with the boy (in our comic) who stated that the advergaming girl is being manipulated:

Frank: She plays the game the whole time, she starts to like it, and as you like it, you don't notice those Froot Loops, and after a while having watched those sweets on that computer, you'll also want to eat something, you'll feel like eating those Froot loops, and you ask 'mommy ...' [spoken with pleading voice].

After having elaborated more thoroughly on the specifics of personalized advertising, then, few children remained indifferent when they were made aware of the fact that this advertising format makes use of personal information other than keyword searches alone (e.g. chat or mail history). Quite remarkable in this context is that the majority of the children expressed their concerns with explicit reference to the notion of privacy. As Steven (5G) put it, 'I think that's actually a bit of privacy you don't have. Because they know what you like and what not'. Lou (5G) saw no good in the retargeting tactic, because '... that is your own personality. If you look up a lot of things, and you see advertising about

those things, than that's a bit like blackmail'. As these privacy concerns often seem to originate from moral thinking, the next section will delve into this matter more extensively.

#### 3.4.2.4 Social conventional, moral and ethical reasoning

As already mentioned, we attempted in the second part of the focus groups to elicit children's reasoning strategies by presenting them three different comic scenarios that visualized some of the possible stances one could have towards the new advertising formats and tactics (see Appendix 1). Although there were some instances in which the reasoning was clearly social conventionally inspired (see Turiel, 1983) – for example, the mother in the comic is right, because 'she's the adult figure' (Meg, 6G) – there were more occasions in which the children expressed evaluations of the advertising tactics that were very likely to be of a moral nature. More concretely, they showed to be able to consider the possible consequences of advertising tactics for (unknown) others (see, for instance, Flores and James, 2013). For example, when discussing the comic on brand placement with Shawn (5G), he took into account the perspective of children younger than him (and their parents) to explain why he dislikes 'hidden advertising':

Shawn: They [advertisers] should show that [the presence of advertising] to everyone because children do not realize yet there is advertising in it ... and then they will say something like 'mom, you should look at this movie, check that football figure! I want to hang that on my backpack too!'

Especially when discussing the comic on personalization it was most clear that some children moved beyond their own perspective. Joanna (5G), for instance, made an obviously moral judgement by arguing that others also would not like to have their privacy breached: 'If you play a game, and the computer lives too, than he wouldn't like it either if you are looking at what he's actually doing'.

Most often, however, children's evaluations were constituted by a *trade-off* between both the positive and the negative considered properties of the advertising tactics. In the case of brand placement and advergames, this usually involved a trade-off between 'advantages' in the individual, psychological domain and 'disadvantages' in the moral domain (cf. SDT; Turiel, 1983). For example, they can experience brand placement as 'funny' but at the same time as 'bad', 'because some people do not know that it is for advertising' (Alex, 6G). Similarly, in the case of personalized advertising, it is often a trade-off between the luxury of getting ads that are tailor-made and privacy concerns: '... it's indeed fun that you only get the advertising you're interested in, but it is also creepy that they know what you have searched for' (Meg, 6G). However, we also frequently noticed a trade-off between moral concerns and *ethical benefits*. For example, the children may have privacy issues with personalized advertising, but at the same time they also acknowledge its role in stimulating a prosperous economy and employee welfare: 'A company has to get its money somewhere ... probably they have people who work there to make the software right; they have to be able to pay them too' (Lou, 5G).

Finally, we noticed that although children often referred to themselves and (abstract) third parties when discussing privacy, they referred even more to the unwanted information flow towards

known parties such as parents and friends (known as 'social privacy', see Raynes-Goldie, 2010). Consequently, when judging personalized advertising, they were frequently mindful to the latter (5G):

Leigh: They are watching something of your private life, but you don't want them to know that.

Shawn: Yes, in your internet diary.

Leigh: And your family can't know that either, and then they do know. And if your mom and such get on YouTube on your phone, then they see all your private.

Shawn: I think that's even the worst!

In summary, these results show that children, when encouraged to reflect more deeply on the tactics used by the new formats, often formulate judgements based on reasoning that transcends individual consequences. The following quotes (on PA) serve as a good illustration of how some children adopt social conventional, moral and even ethical perspectives in the same conversation (6G):

Rob: I don't like it when they get on your internet and they know what you do. That is actually your own business. For instance, so to speak, you're watching naughty stuff on a website and they know what you are doing. And then they can easily mail that to your mom and dad.

Lester: I think they should be allowed. I mean, if they can't look into that, it could be that you are hiding something on your internet diary, or something. Or that you search for things like weapons, or drugs or anything.

### 3.5 Discussion and conclusion

This study contributes to the academic, educational and political debate on whether and how children may cope with the new advertising formats that rely on implicit tactics (which are often not explicitly disclosed), by analysing focus groups in which children's knowledge and evaluations of these tactics is explored.

First, the analyses confirm extant research as they show that the participating children, despite their basic understanding of the selling intent of advertising in general, did not actively look out for advertising that is embedded in entertaining and/or interactive media content (e.g. Owen et al., 2013). Moreover, they usually had not reflected before on the new advertising tactics and how they work. This study adds, however, that once they were made aware of these tactics and how they function, virtually all of the children showed that they were *able* to recognize and understand these tactics and their complex goals (such as transferring positive affect and retargeting through collecting personal data). This even applies to the implicit mechanism of persuasion without awareness of the commercial elements, which was initially most difficult for the children to grasp.

Second, this study also corroborates existing studies as the children seemed easily overwhelmed by the fun and immersive character of the new advertising formats (see, for example, Nairn and Fine, 2008), which usually resulted in a positive evaluation of these formats and indifference

towards the used tactics. However, it was also demonstrated that children (armed with new tactic awareness and comprehension) do have the ability to make judgements about advertising in which the reasoning surpasses the individual consequences (here: rewards) alone, once they are being stimulated to take the perspectives of others. For instance, in evaluating these tactics, children took the viewpoint of other children (e.g. stating that embedded advertising should be disclosed as younger children cannot independently make the distinction with the editorial media content), undefined others (who also would not like it when you would check *their* private information), companies and economies (who need to make money too, for example, to pay wages and stimulate economic growth) and many other (abstract) social actors. Moreover, in doing so, they often confronted several perspectives to form their judgements, for example, by considering both the personal advantages of receiving only individually relevant advertising, on one hand, and the loss of privacy in society, on the other hand. In other words, following key theories on development in reasoning strategies (Kohlberg, 1984; Turiel, 1983), this implies that children (here: 9- to 11-year-olds) have the capacities to reason according to social conventional, moral and even ethical considerations in the context of advertising. According to Friestad and Wright (1994), such reasoning is essential to form valid judgements about advertising and, therefore, allows children to make well-substantiated and conscious decisions about commercial products and services.

Taken together, these findings indicate that children can be *empowered* to cope critically with the new advertising formats that make use of implicit tactics, by making them aware of these advertising tactics and how they work, convincing them of the realness and effectiveness of preconscious persuasion and encouraging them to reflect on what these tactics may imply for other actors. As this is in contrast with the current societal approach which seems to depart from a paradigm of vulnerability, emphasizing children's need to be protected from advertising (see Buijzen and Valkenburg, 2003), several recommendations can be made. Academics, educators and policy makers, for instance, may reconsider focusing on the mere avoidance of advertising through restriction and regulation, by working together in developing, implementing and evaluating educational interventions and awareness campaigns that acknowledge children's abilities for critical reflection on advertising and its tactics. One important caveat, however, is that for people to successfully cope with advertising, they also need to apply this type of thinking at the very moment (or shortly afterwards) they are confronted with these tactics. According to the PKM (Friestad and Wright, 1994), people should first notice that a persuasion tactic is being used and consequently disengage themselves from the advertisement (and, eventually, the media in which it is embedded), making assessments of the tactics' effectiveness and appropriateness, to ultimately refine their consumer attitudes. This situational application of tactic knowledge and beliefs is, as mentioned earlier, not that straightforward in the case of children, considering their limited cognitive abilities and motivation in the context of contemporary advertising. It should be kept in mind, however, that the PKM also states that people with little processing resources available may still cope with advertising using simple heuristics. Based on a limited amount of advertising features, children may invoke 'tactic recognition' heuristics (e.g. 'I get advertising for a product I looked up online before, so it is personalized advertising'), effectiveness heuristics (e.g. 'This tactic must be very effective because it appeals to people's personal interests') and even appropriateness heuristics (e.g. 'PA is wrong because it uses people's personal data without explicitly



asking permission'). Through class-based interventions, for instance, these heuristics may be developed and refined more rapidly than via advertising experience and repeated tactic exposure alone. Future studies could investigate more in detail what these heuristics should entail and how they can be taught to children most effectively.

Our study also has more general implications for academics by having revealed limitations of extant research and especially concerning those studies investigating children's coping with advertising through *critical thinking*. As mentioned earlier, most studies equate this (umbrella) concept to a negative attitude towards advertising (e.g. Rozendaal et al., 2011b). However, we argue that nuanced, critical thinking can also lead to a *positive evaluation* of advertising. Imagine a child noticing brand placement, and consequently thinking about how effective it must be, as the product is repeatedly shown in a fun context, in which its possibilities are explored. However, the placement is also announced by a disclosure clearly stating 'This is advertising'. Consequently, the child concludes that the used tactics are fair (e.g. informative in a fun and honest way) and decides to go along with the advertisement's effort to arrive at a favourable brand and product evaluation. In other words, critical thinking should not only be assessed by asking children how appropriate or fair the used advertising tactic seems to them (as a final evaluation) but also by asking them *how* they did arrive at such conclusion (as a process) and on what tactic knowledge and (effectiveness) beliefs they have based their judgements on.

A limitation in this study must be addressed here, namely that the comic scenarios used to elicit children's reasoning strategies comprised only a limited number of dilemmas or possible ways in which one may judge the new advertising formats and tactics, as selected by the researchers. Although the comics did stimulate the participants to express many other ways of evaluation, more qualitative (e.g. ethnographic) research is needed to further explore children's own (moral) reasoning processes and provide more detailed insights into how children take into account different (f)actors to form their judgements related to advertising. Nevertheless, based on the results of this study, quantitative research could already attempt to assess children's reasoning strategies by asking them open questions about the way they reflected on specific advertisements. Consequently, the answers could be coded in accordance with key theories of moral reasoning, for instance, into categories of individualistic/psychological, social conventional and moral (and ethical) ways of thinking about advertising tactics. This should allow experimental studies to investigate whether children react differently to various new advertising formats and tactics when using different reasoning strategies (for instance, after an educational intervention), rather than merely testing whether they will resist persuasion when having (or being imparted) negative attitudes towards advertising. Longitudinally, one could also investigate which approach is more durable in the long term and better transferable across multiple advertising formats: teaching children to avoid advertising or encouraging them to consciously and critically reflect on it.

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### 3.7 Appendix

#### Appendix A: Videos

Figure 3-1 Snapshot from video illustrating integration of advertising through brand placement



Figure 3-2 Snapshot from video illustrating interactivity of advertising through advergames

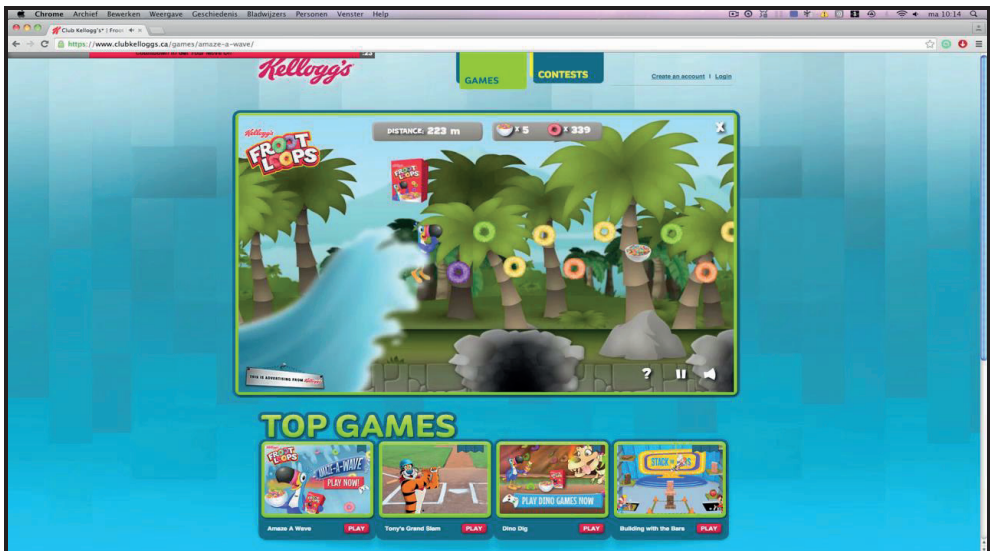
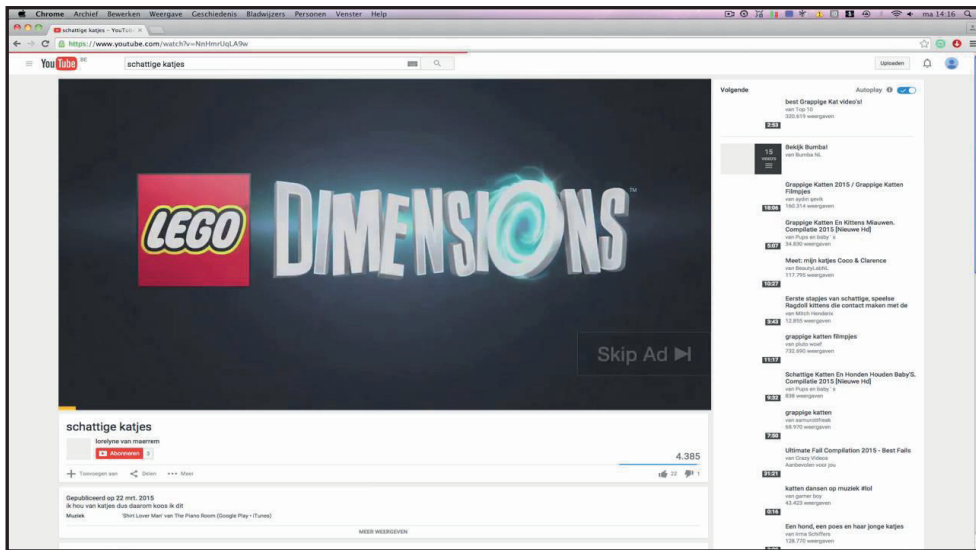


Figure 3-3 Snapshot from video illustrating personalization of advertising through pre-roll video ads



**Appendix B: Comic scenarios**

Figure 3-4 Comic scenario of dilemma concerning integration of advertising (front)



Figure 3-5 Comic scenario of dilemma concerning integration of advertising (back)





Figure 3-6 Comic scenario of dilemma concerning interactivity of advertising



Figure 3-7 Comic scenario of dilemma concerning personalization of advertising (front)

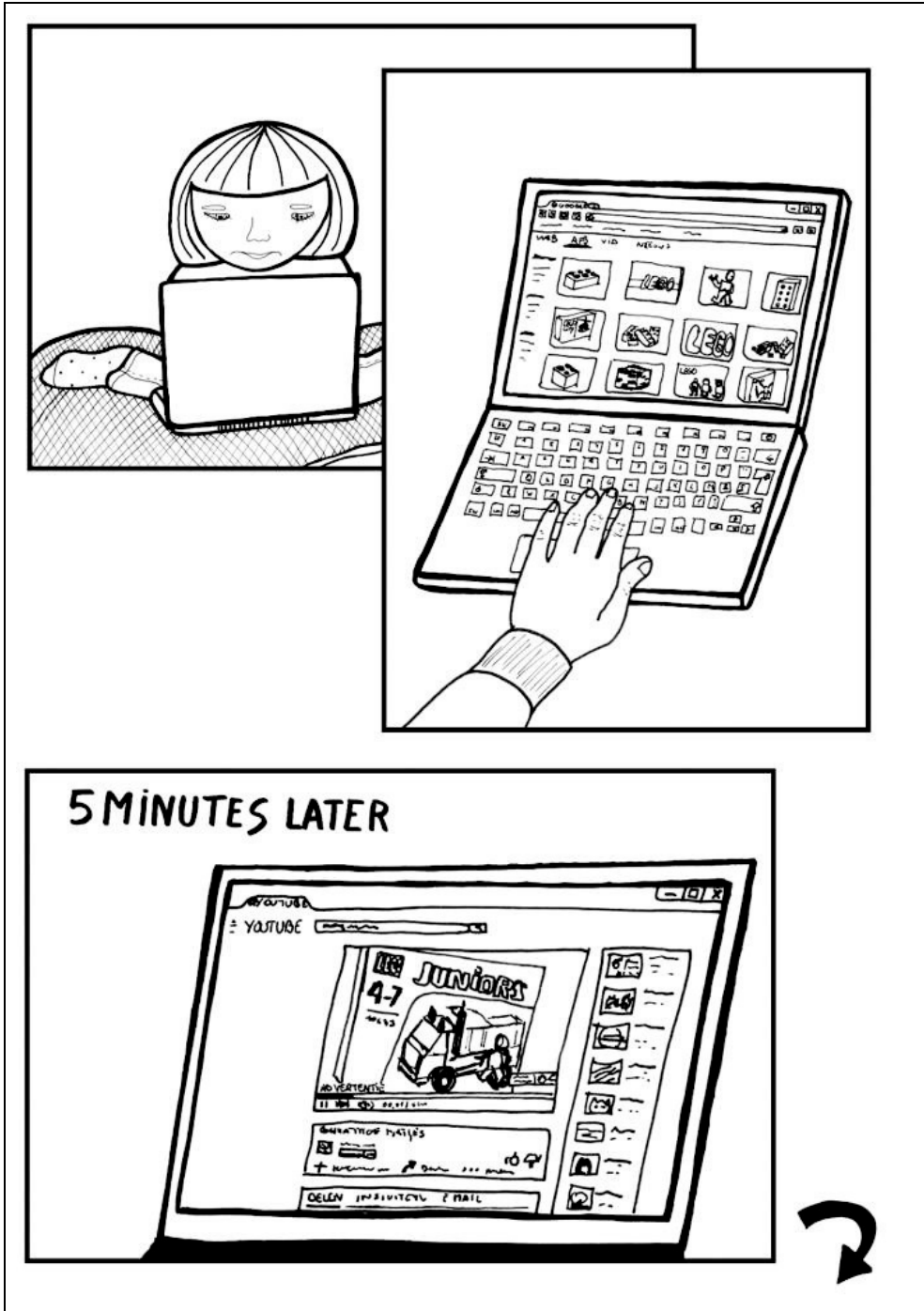
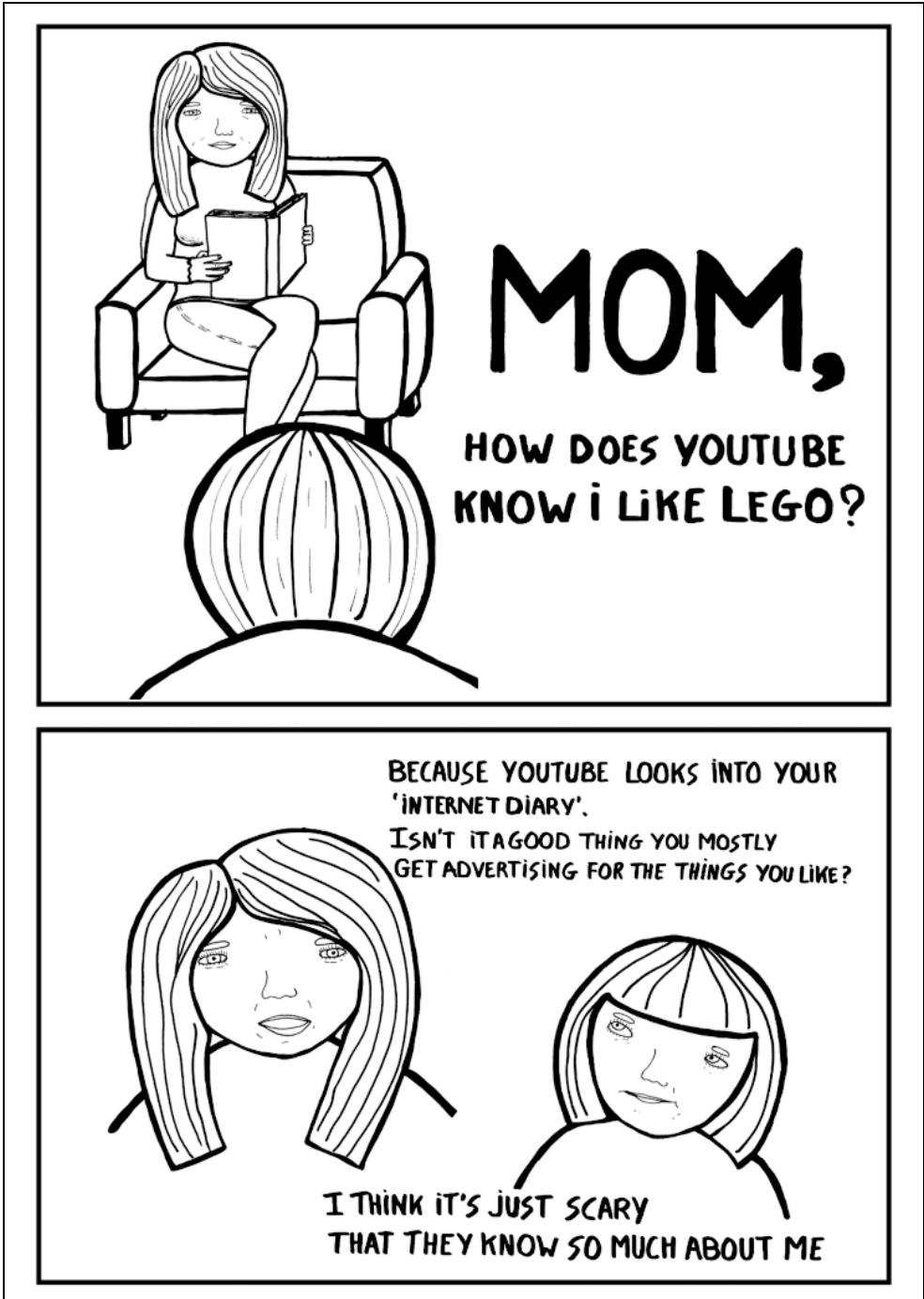


Figure 3-8 Comic scenario of dilemma concerning personalization of advertising (back)





## 4 EXAMINING THE CONTEXTUAL DETERMINANTS OF CHILDREN'S ADVERTISING LITERACY

### **Abstract**

Few studies focus on how children's environment affects their ability to cope with contemporary advertising. This study uses multilevel analysis techniques to explore how parents, classmates, and teachers' characteristics influence primary school children's dispositional advertising literacy, while acknowledging these children's own individual features. To this end, three surveys were conducted, resulting in four datasets linking information obtained from (9- to 12-year-old) children ( $n = 392$ ), their peer group (children aggregated per class;  $n = 22$ ), their parents ( $n = 191$ ), and their teachers ( $n = 22$ ). The results show that children's cognitive and attitudinal advertising literacy is to a large extent (12-13%) determined by class-level processes (especially peers). Children's moral advertising literacy is primarily an individual matter (1%), albeit greatly influenced by their teachers. In general, parents' impact is mainly expressed through socioeconomic factors.

**Keywords:** advertising literacy, children, peer, parent, teacher

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### **4.1 Introduction**

Children's advertising literacy, or their knowledge, abilities, and attitudes regarding advertising, has been investigated primarily by focusing on individual characteristics (see De Jans, Van de Sompel, Hudders, & Cauberghe, 2017), while paying considerably less attention to the child's environment. There is a lot of research into how parents mediate their children's relation to advertising, though mostly in the context of traditional ad formats (e.g., Buijzen & Valkenburg, 2005). Recently, many studies have also been testing the effects of advertising-literacy education (e.g., Nelson, 2015), though generally focusing on single and formal educational interventions designed by researchers (del Mar Pàmies, Ryan, & Valverde, 2016). It is not yet known whether teachers themselves make a difference, which may have a more enduring and implicit impact in children's daily lives at school.

The least-studied is the influence of peers, presumably because in contrast with adolescents, children are assumed to be more susceptible to parental authority than to peer-group expectations (Coleman, 1961). However, children also spend most days at school, in interactions with classmates that undoubtedly involve advertising. Studies have demonstrated that peers are important for how children process ads (e.g., Rozendaal, Slot, van Reijmersdal, & Buijzen, 2013), at least with regard to

consumer-related norms and attitudes. A possible transfer of advertising literacy has not yet been considered.

In other words, research is needed about contextual effects on how children cope with advertising. Therefore, the present study explores to what extent and how children's advertising literacy is shaped by their parents, classmates, and teachers, when considering their own, individual characteristics. 9- to 12-year-olds were selected because their vulnerable yet abled status (John, 1999) calls for insights upon which various ad literacy interventions can be based (e.g., about the social actors that could be involved in educational training sessions or targeted with awareness campaigns).

This article focuses on contemporary advertising, including not only traditional formats (e.g., TV commercials) but also the newer ones that embed advertising in immersive and engaging media content (e.g., advergames). As latter formats are most challenging to the capability and motivation for elaborate processing (Rozendaal, Lapierre, van Reijmersdal, & Buijzen, 2011), they are most likely to impede children's development of advertising literacy.

Unlike extant research, multilevel techniques are used to allow for simultaneously analyzing group or class level (classmates and teachers) and individual (children and parents) influences, as well as their interactions. In this way, the current study identifies several macro-processes (e.g., a counter-advertising culture) that affect children's advertising literacy over and above the effects of analogous individual-level variables (e.g., their own advertising judgment). Thus, the article's conceptual model primarily focuses on contextual influences, and includes only those individual predictors that are meaningful when brought to the level of the group.

## **4.2 Literature review**

### **4.2.1 Children's advertising literacy for contemporary advertising**

Advertising literacy is part of media literacy (i.e., a set of perspectives used to process mass media and interpret its messages; Potter, 2016) and is defined as the knowledge and abilities needed to recognize advertising and critically reflect on it. The present study focuses on dispositional (or the possession of) ad literacy, as it is prerequisite to situational ad literacy (or the use of relevant mental structures and skills at the moment children are exposed to an ad). Both literacies comprise a cognitive, attitudinal and moral dimension (Hudders et al., 2017).

Cognitive advertising literacy entails all directly knowledge-related elements, such as the ability to recognize advertising and understand its commercial intent and persuasive tactics (Rozendaal et al., 2011). The present study focuses on children's recognition, as the ultimate precondition for consciously and critically processing advertising (Friestad & Wright, 1994).

Attitudinal advertising literacy has predominantly been defined as holding skeptical or negative attitudes toward advertising (cf. Rozendaal et al., 2011), which may increase the likelihood of resisting ads when recognized as such. Furthermore, as these attitudes were found to channel the impact of children's ad knowledge on ad effects (De Pauw, Hudders, & Cauberghe, 2017), the present study also examines their possible interactions with cognitive and moral ad literacy – and thus how they relate to the “critical processing” of advertising.

Finally, moral advertising literacy is the ability or readiness to reflect morally on advertising. To process advertising in a well-substantiated and critical manner, it is not only necessary to recognize and understand advertising tactics, but also to apply that cognitive information for evaluating these tactics in terms of fairness, respectfulness, and manipulativeness (Friestad & Wright, 1994). This seems especially relevant for children, as they are increasingly confronted with advertising that fits the description of “covert” or “stealth” marketing.

Being exploratory, the present study aims to explain as much variance as possible in these three outcomes by linking them to variables connected to (advertising) literacy in extant literature, both on the individual and class levels. In this way, the analyses arrive at the best-fitting model for each dimension of advertising literacy. Accordingly, these dimensions also are considered as each other's predictors to gain insight into how they are interrelated.

This procedure allows to answer following research question: To what extent and how is children's cognitive, attitudinal and moral advertising literacy influenced by their parents, classmates, and teachers' characteristics, when considering children's own individual features? In doing so, it is revealed to what extent the distinct advertising literacy dimensions are subject to contextual influences (that researchers should account for in their analyses) and are determined by specific characteristics of the current selection of primary socializing agents – thereby providing insights that may inform interventions to help children cope with advertising.

## 4.2.2 Characteristics related to advertising literacy

### 4.2.2.1 Individual Child

As the current study primarily focuses on the influence of a child's environment, upcoming analyses will mainly treat the following individual predictors as control variables:

**Socio-demographics: age, media use, and gender.** Many studies show a strong positive correlation between age and advertising literacy (see e.g., John, 1999). Also considered is media use as it reflects children's exposure to advertising, and therefore the opportunities in which they can develop ad literacy through experience and practice. Further included is children's gender, which is statistically controlled for in most advertising studies (De Jans et al., 2017).

**Cognitive predictor: ad-format awareness.** To be able to recognize, to evaluate affectively and to reflect morally on advertising (formats), awareness of their existence is needed first. While this has rarely been assessed for newer formats, there is some evidence that children's awareness of current marketing tactics is positively related to ad skepticism (Freeman & Shapiro, 2014).

**Attitudinal predictors: ad-format liking and appropriateness evaluation.** Considering the entertaining character of contemporary advertising (Wicks, Warren, Fosu, & Wicks, 2009), children liking these formats may also have more positive attitudes toward advertising in general (i.e., less attitudinal advertising literacy). Furthermore, as these immersive formats are assumed to render them incapable and unmotivated for elaborate and critical ad processing (Rozendaal et al., 2011), their development of cognitive and moral ad literacy might be hindered. Related, as adults' perception of the appropriateness of ad formats has been found to channel the expression of ad knowledge (e.g., Wei,

Fischer, & Main, 2008), such an evaluation (e.g., as fair or rather manipulative) may also alter children's formation of advertising literacy in general.

**Coping strategies: compliance vs. resistance or scrutiny.** Children are generally perceived as prone to comply with advertising and its intended effects (e.g., Nairn & Fine, 2008). Conversely, they are also expected to cope through resistance (e.g., by avoiding ads; see Hudders et al., 2017). However, both strategies are unlikely to nourish children's ad literacy, as they do not require elaborate ad processing. Nevertheless, children do have the ability to "scrutinize" contemporary ad formats and their tactics (De Pauw, De Wolf, Hudders, & Cauberghe, 2017), which should be more conducive to becoming more adept at recognizing advertising and identifying the commercial cues on which ads may be evaluated morally and affectively.

Being an exploratory study, these categories (socio-demographics, cognitive and attitudinal predictors, and coping strategies) are also extended to the levels of parents, peers, and teachers. Hypotheses are formulated for those variables from which we can expect an effect on children's advertising literacy, as inferred from extant literature. For the sake of conciseness and exploration, it is not specified which particular literacy dimensions are assumed to be affected.

#### **4.2.2.2 Parents**

Scholars have long been studying "parental advertising mediation", and demonstrated, for instance, that children are less susceptible to advertising as their parents apply an active mediation style (e.g., by actively explaining the nature of advertising, rather than restricting exposure) and communicate in a concept-oriented manner (e.g., by encouraging negotiation, rather than forcing obedience) (e.g., Buijzen & Valkenburg, 2005). However, most quantitative studies have been focusing on traditional ad formats only. Therefore, the present study investigates whether children's advertising literacy is influenced by their parents discussing contemporary (thus also including the newer) ad formats, but also by their parents' current levels of ad literacy and related characteristics. It can be assumed that ad-literate parents implicitly transfer these skills to their children, whose consumer socialization may be influenced more through subtle family communication than by deliberate parental educational endeavors (John, 1999).

Additionally, as educational multilevel research has shown that children's general literacy is strongly associated with socioeconomic status (SES) (e.g., Hemmerechts, Agirdag, & Kavadias, 2017) and parental involvement (Ma, Shen, Krenn, Hu, & Yuan, 2016), it is tested whether parental educational attainment – as a main indicator of SES (Sirin, 2005) – and family size are also related to children's advertising literacy. Concerning SES, it is commonly theorized that the more high-ranking children, who enter school with already-developed skills and ingrained attitudes learned at home, enjoy a long-lasting head start over lower-SES children (Bourdieu, 1984). Regarding parental involvement, it has long been established that when family size increases, parental resources such as time and energy are diluted, lowering parental involvement per individual child and negatively affecting literacy outcomes (Downey, 1995). Furthermore, it has been raised before that variables such as the number of siblings deserve more attention in advertising studies, as this constitutes a highly relevant context for children's socialization as consumers (John, 1999). This leads to the following hypotheses:



**H1:** Children's advertising literacy increases as their parents:

H1a: engage more in active advertising mediation.

H1b: have higher levels of advertising literacy.

H1c: have a higher SES (here: a higher educational degree).

H1d: show more parental involvement (here: have a smaller family).

#### **4.2.2.3 Peers**

Peers play a crucial formative role in children's consumer behavior (Moschis & Churchill, 1978) and socialization in general (John, 1999), with their influence beginning from early childhood on (McNeal, 1992) and reaching a peak in conformity between the ages of 11 and 13 years (Boush, 2001). More specifically, children increasingly communicate with their peers about ads and the brands and products being promoted, and consider each other's preferences when making consumer evaluations and decisions (Meyer & Anderson, 2000). Many of them even come to believe that their friendship quality depends on the adherence to certain brands and the possession of products that are popular in their peer group (Banerjee & Dittmar, 2008).

Despite this evidence, and perhaps because of an unceasing assumption that peer-group influence is most prominent among adolescents (Coleman, 1961), few studies have linked such influences to children's advertising literacy and susceptibility. One study showed that children's brand recognition for print advertising increases as they attach more importance to possessing the same branded products as their friends (Valkenburg & Buijzen, 2005). Another study demonstrated that children's desire for products advertised in online social games heightens as they attach more value to the branded products approved by friends (Rozendaal et al., 2013). It may be noted that these studies conceptualize peer influence normatively, as a transfer of attitudes and preferences related to advertised brands and products. It could be argued, however, that children also influence each other by imparting advertising literacy. In particular, educational research has shown that children's learning-related behaviors and literacy skills are highly similar to those of their peers (Lin, Justice, Paul, & Mashburn, 2016) and that any literacy knowledge they gain in class is consistently refined through peer interaction (Corsaro & Nelson, 2003).

Accordingly, the present study investigates how children are influenced by the levels of ad literacy (and related characteristics) in their class. Additionally, as it has been found repeatedly that children's learning and literacy outcomes are positively associated with school and classroom SES composition – being a contextual indicator for wealth transcending the individual child's home resources (Sirin, 2005) – it is tested whether children's ad literacy is linked with the educational background in class. The following hypotheses are formulated:

**H2:** Children's advertising literacy increases when:

H2a: the levels of advertising literacy in their class are higher.

H2b: the level of SES in their class is higher.

#### 4.2.2.4 Teachers

Recently, many studies have tested the effectiveness of advertising-literacy educational interventions at school, having shown, for instance, that a three-hour class increases children's understanding of print ads (Nelson, 2015). However, as such studies usually focus on short-term, researcher-driven training sessions (del Mar Pàmies et al., 2016), it is not yet known whether a difference is made by the teacher *an sich* – for instance through subtle, day-to-day interactions in which literacy is transferred from teacher to student in a more implicit manner. Latter approach has since decades been common in educational research (Good, 1979), having delivered convincing evidence of stable and long-term effects by teachers on desired pupil outcomes (Kyriakides & Creemers, 2008). Review studies show, for instance, that pupils achieve more when teacher quality is higher in terms of skills and knowledge (Wayne & Youngs, 2003).

Accordingly, the present study explores how children may be influenced by their teachers' levels of ad literacy (and related characteristics), and the extent to which they discuss new ad formats with their students (cf. parents). Thus, the following hypotheses are proposed:

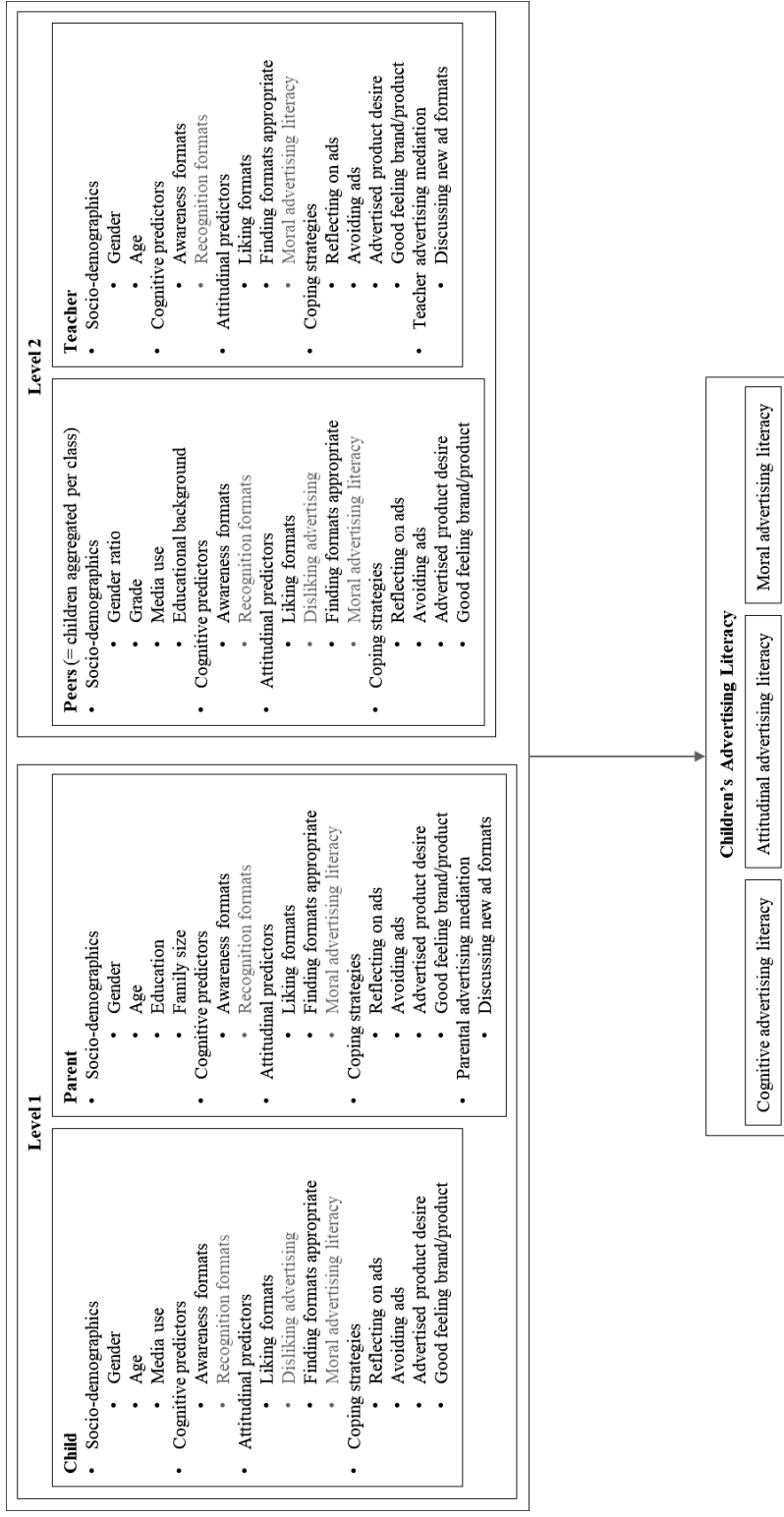
**H3:** Children's advertising literacy increases as their teacher:

H3a: engages more in active advertising mediation.

H3b: has higher levels of advertising literacy.

Figure 1 displays a conceptual model, with an overview of individuals, parents, peers, and teachers' characteristics explored regarding their relationship with children's ad literacy.

Figure 4-1 Conceptual model: overview of the L1 and L2 independent variables to be explored with regard to their effects on individual children's advertising literacy



Notes. Measures of advertising literacy included as independent variables are presented in grey font. Explored moderation and mediation effects are not displayed.

## 4.3 Methods

### 4.3.1 Participants

Data were gathered in May 2016 from 12 primary schools in a West-European country as part of a larger program studying children's risks related to contemporary ad formats. Participation was obtained from 392 children from 11 fourth-grade and 11 sixth-grade classes (43% girls;  $M_{age} = 10.26$ ,  $SD = 1.14$ ), their parents ( $n = 191^2$ ; 78% female;  $M_{age} = 40.71$ ,  $SD = 4.94$ ), and their teachers ( $n = 22$ ; 91% female;  $M_{age} = 39.68$ ,  $SD = 9.29$ ).

### 4.3.2 Procedure

Prior to the study, participating schools were given detailed information about the study's procedures. Ethical approval was obtained from the researchers' university faculty board, and written, informed consent was obtained from all participating children's parents or legal guardians. In class, the children were given the option not to participate in the study.

Upon arrival in class, each child received a questionnaire on a tablet device, in which response options were labeled both verbally and nonverbally using visual representations such as emoticons (cf. Mallinckrodt & Mizerski, 2007). The researchers read each question aloud and clarified any question when asked. At the end of the survey, the children received more detailed information about the study, and a small gift to thank them for their participation.

Further, teachers were asked to fill out a similar survey on paper, with comparable questionnaires handed out to the children to take home and have one of their parents fill out. A researcher returned to the schools two to four weeks later to collect the completed questionnaires.

### 4.3.3 Variables and measures

#### 4.3.3.1 Children's questionnaire

Several of the measures below are indexes (see Appendix A1) composed of items repeated for five contemporary ad formats often aimed at minors, namely TV ads, product placement, advergames, online banners, and pre-roll advertising – each of which was preceded by a brief description within the survey (see Appendix A2).

**Dependent variables.** As currently few adequate instruments exist to measure dispositional advertising literacy (Zarouali et al., in press), the following variables are adapted from existing ways to assess situational advertising literacy.

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<sup>2</sup> 191 of the 392 participating children could be linked to a parent, which indicates a response rate of 49% - a consequence of the questionnaire not being filled out by every parent, as well as our instructions to answer the questions with the oldest participating child in mind. This means that the sample size is nearly halved for the analyses involving (L1) parental characteristics.

*Cognitive advertising literacy* was operationalized as the self-perceived ability to recognize contemporary ad formats (see Hudders et al., 2017) by asking the children, “How easy do you find it to recognize [format x]?” (1 = very hard; 5 = very easy) (index;  $M = 3.77$ ,  $SD = 0.65$ ).

*Attitudinal advertising literacy* was operationalized as disliking advertising in general (cf. Rozendaal, Oprea, et al., 2016) by asking, “How much do you...”: “...like advertising?”, and “...find advertising annoying?” (1 = not at all; 5 = very much) ( $\alpha = 0.71$ ;  $M = 3.13$ ,  $SD = 1.09$ ).

*Moral advertising literacy* was operationalized as the frequency of reflection on whether advertising in general is appropriate (see Friestad & Wright, 1994) by asking, “How often do you think about whether advertising...”: “...is honest?”, “...is misleading?”, and “...shows things like they really are?” (1 = never; 5 = very often) ( $\alpha = 0.73$ ;  $M = 2.85$ ,  $SD = 0.96$ ).

**Socio-demographics.** Children’s background variables include *gender* (ref. cat.: girl), *age* (metric, in years), and *media use*. The latter was measured by asking how many hours a day they watch TV and surf the Internet (in their free time, both during the week and on weekends).

**Cognitive predictor.** Children’s *awareness of advertising formats’ existence*<sup>3</sup> (cf. Freeman & Shapiro, 2014) was measured by asking them, “Did you already know that [format x] existed (before we told you this)?” (1 = not at all; 5 = certainly) (index;  $M = 3.90$ ,  $SD = 0.70$ ).

#### **Attitudinal predictors.**

*Liking advertising formats*<sup>4</sup> was measured by asking participants, “What do you think of [format x]?” The response options were presented using five-point semantic differentials: “I find [format x]...”: “...not nice – nice,” “not interesting – interesting,” and “not annoying – annoying” (reverse-scored) (index;  $M = 2.75$ ,  $SD = 0.68$ ).

*Evaluating ad formats in terms of appropriateness*<sup>5</sup> (cf. Wei et al., 2008) was measured using the same question, but with the response options “dishonest – honest” and “wrong – good” (index;  $M = 3.23$ ,  $SD = 0.72$ ).

**Coping strategies.** These were assessed with four separate items (cf. Fransen, Verlegh, Kirmani, & Smit, 2015) by asking, “When you see advertising, how often...”: 1) “...do you think about that advertising?” (*reflecting on ads*;  $M = 2.64$ ,  $SD = 1.12$ ); 2) “...do you try to avoid that advertising?” (*avoiding ads*;  $M = 3.39$ ,  $SD = 1.27$ ); 3) “...do you want to have the advertised product?” (*advertised*

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<sup>3</sup> Note that this study does not model this variable as part of cognitive advertising literacy, as format awareness is rather a predictor or a necessary antecedent for the recognition of ad formats. Nevertheless, to explore possible interrelations between the study’s outcomes, the perceived *ability to recognize the ad formats* is also included in the ‘cognitive predictors’ category – except for the models having this variable as an outcome (i.e., cognitive advertising literacy).

<sup>4</sup> As this index covers the five ad formats, it is different from the outcome “attitudinal advertising literacy,” which is rather a general, encompassing disposition with which children may approach a variety of ads (see Rozendaal, Oprea, et al., 2016). Nevertheless, for the sake of exploring interrelations between the outcomes, *attitudinal advertising literacy* is also adopted in this “attitudinal predictors” category – save for the analyses modelling this variable as an outcome.

<sup>5</sup> As this variable captures an evaluation with a clear direction, it is different from the outcome “moral advertising literacy”, the latter being more neutral and assessing a tendency to reflect morally on advertising (regardless of whether it is in a positive or negative manner).

product desire;  $M = 2.49$ ,  $SD = 1.00$ ); 4) "...do you get a good feeling about the advertised brand or product?" ( $M = 2.44$ ,  $SD = 1.05$ ) (1 = never; 5 = very often).

**Peer influence.** This was assessed by aggregating the above individual-level variables to mean scores per class. Also considered was school *grade* (0 = fourth grade, 1 = sixth grade), and *class educational background* or the percentage of children with parents who have a master's degree or higher (0 = below median, 1 = above median), indicating class SES (Sirin, 2005).

#### 4.3.3.2 Parents and teachers' questionnaire

This questionnaire resembled the children's survey, except for the following additional measures:

**Socio-demographics.** Parents' *educational attainment* was assessed by asking them to select their highest degree: none (0.5%), primary education (1.0%), lower secondary education (1.0%), secondary education (33.5%), higher or university education – bachelor's (41.4%) or master's/PhD (19.9%). A variable was created separating parents with a master's degree or higher (scored 1) from the others (scored 0) because this dichotomization proved to be most statistically discriminant in terms of the outcomes. *Family size* (indicating parental involvement) was measured by asking them how many children they have ( $M = 2.31$ ,  $SD = 0.88$ ).

**Advertising mediation.** The extent to which parents (teachers) engage in *discussing contemporary advertising formats* with their children (students) was measured by: "How often do you talk with your child (student) about the fact that...": "...the news messages or blogs they read are sometimes advertising (native advertising)?"; "...sometimes brands or products are hidden in TV programs, series, and movies they watch (e.g., product placement)?"; "...sometimes advertising is present on the websites they surf (e.g., banners)?"; "...the online games they play are sometimes advertising (e.g., advergames)?"; "...the advertising they get to see prior to movies on the Internet is sometimes based on their personal online behavior (e.g., YouTube ads)?" (1= never; 5 = very often) (index; parents:  $M = 2.42$ ,  $SD = 0.83$ ; teachers:  $M = 2.80$ ,  $SD = 0.57$ ) (based on Vanwesenbeeck, Walrave, & Ponnet, 2015).

#### 4.3.4 Statistical Analysis

To analyze the above predictors' effects on advertising literacy, multilevel techniques were used (see Appendix A3). Therefore children's data was linked with parents' data (on L1, the individual level<sup>6</sup>) and peers' and teacher's data (on L2, the group/class level). Next, this integrated dataset was explored in three consecutive steps (cf. Gonzalez-Valenzuela et al., 2016; see Appendix A4), starting with correlation analyses, and ending with the most suitable (i.e., trimmed) multilevel model(s) for each dependent variable, as reported below.

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<sup>6</sup> Note that parental variables are modeled on L1, while it could be argued that parents' influences are also of a contextual nature. However, children's families are too small to be considered groups in multilevel analysis, which requires at least a 15/15 design (15 classes with 15 students each) (Snijders & Bosker, 2012).

SPSS Statistics 24 was used for the bivariate correlational analyses; MLwiN 2.33 for the multilevel analyses (running random intercept models, with all metric variables grand-mean-centered); and PROCESS 2.15 macro for SPSS (Hayes, 2013) to further explore mediation and interaction effects (i.e., the independent variable's effects at multiple values of the moderator).

## 4.4 Results

### 4.4.1 Cognitive advertising literacy

Model 0 demonstrates that 11.9% ( $\sigma^2_e = 0.379$ ,  $\sigma^2_u = 0.050$ ) of the variance in children's cognitive ad literacy is situated at the class level (Table 1). None of the parent variables made it to the following models, which implies that the first hypotheses are rejected for this outcome.

In Model 1, the L1 child variables are added, showing that children have more cognitive ad literacy when they are boys, as they are better aware of ad formats' existence, and more prone to resist ads by avoiding them. Furthermore, interaction effects show that the positive effect of ad-format awareness increases as children like the formats more; and that the liking of formats decreases cognitive ad literacy, but only among children who most strongly try to avoid ads.

Model 2 entails the peer variables, and the interaction effect indicates that the individual effect of children's ad-format awareness on cognitive ad literacy becomes smaller as the awareness in class increases. Moreover, additional mediation analyses show an indirect positive effect from class awareness on cognitive ad literacy through child awareness (see Appendix C1). This means H2a is partially supported for the current outcome.

Model 3 finds that teachers' tendency to reflect on the ads they encounter is negatively related to children's cognitive ad literacy – thereby rejecting H3b, or at least its direction. Moreover, this final model (relative to the null model) explains 80.0% of the of its L2 variance (between classes; from  $\sigma^2_u = 0.050$  to 0.010) and 54.6% of its L1 variance (between the individual cases; from  $\sigma^2_e = 0.379$  to 0.172). As a whole, this model demonstrates that children's cognitive ad literacy for contemporary ad formats is most strongly determined by their awareness of these formats, combined with the general awareness present in class.



Table 4-1 Stepwise multilevel regression on cognitive advertising literacy (perceived ability to recognize advertising formats)

Variables	Model 0	Model 1	Model 2	Model 3
L1: child				
Gender (ref: girl)		0.095 (0.044) *	0.101 (0.044) *	0.101 (0.044) *
Awareness formats		0.605 (0.032) ***	0.584 (0.033) ***	0.583 (0.033) ***
Liking formats		-0.059 (0.034)	-0.056 (0.034)	-0.054 (0.034)
Awareness x liking formats		0.139 (0.045) **	0.128 (0.045) **	0.126 (0.045) **
Avoiding ads		0.064 (0.018) ***	0.065 (0.018) ***	0.069 (0.018) ***
Liking formats x avoiding ads		-0.050 (0.023) *	-0.046 (0.023) *	-0.047 (0.023) *
L2: children (aggregates)				
Awareness formats (mean)			0.074 (0.152)	0.041 (0.140)
Awareness formats (child x mean)			-0.263 (0.124) *	-0.264 (0.122) *
L2: teacher				
Reflecting on ads				-0.084 (0.031) **
Constant	3.756 (0.058) ***	3.704 (0.046) ***	3.719 (0.044) ***	3.717 (0.040) ***
Class-level variance	0.050	0.021	0.016	0.010
Individual-level variance	0.379	0.174	0.173	0.172
Log-likelihood	757.911	450.124	444.281	437.590
n L2	22	22	22	22
n L1	392	391	391	391

Notes. Unstandardized parameter estimates with standard errors in parentheses. \*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$ .

#### 4.4.2 Attitudinal advertising literacy

Model 0 shows that 12.9% ( $\sigma^2_e = 1.031$ ,  $\sigma^2_u = 0.153$ ) of the variance in children's attitudinal advertising literacy takes place on the class level (Table 2). The teacher (and most of the parent) variables did not make it to the following models.

Model 1 adds the child variables, and shows that children have more attitudinal advertising literacy when they are older, like contemporary formats less, and are more prone to avoiding ads. Model 2 (parent survey) demonstrates that children from larger families score lower in terms of attitudinal ad literacy – confirming H1d for current outcome.

The following models add the peer variables separately, as the many contextual effects found in the preparatory analyses (Appendix C2) cannot be inserted simultaneously into one model. Children's attitudinal ad literacy is positively associated with media-use frequency in the class (Model 3) and the proportion of children from highly educated families in the class (above median – Model 4), and negatively linked to the class' liking of the formats – over and above the child's own liking (Model 5) and susceptibility to advertising (i.e., tendency to feel good with advertised brands/products – Model 6). These results support the H2 hypotheses.

In their entirety, and when considering effect sizes, corresponding significance levels and log-likelihood decreases, the final models show that children's attitudinal ad literacy is best predicted by their liking of the contemporary ad formats (individual child), the educational background in class (peers), and family size (parents).

Table 4-2 Stepwise multilevel regression on attitudinal advertising literacy (disliking advertising)

Variables	Model 0	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
L1: child							
Age		0.128 (0.054) *	0.198 (0.061) **	0.079 (0.057)	0.184 (0.044) ***	0.057 (0.064)	0.103 (0.053)
Liking formats		-0.681 (0.075) ***	-0.677 (0.104) ***	-0.685 (0.074) ***	-0.712 (0.076) ***	-0.664 (0.075) ***	-0.680 (0.074) ***
Avoiding ads		0.078 (0.039) *	0.119 (0.057) *	0.074 (0.039)	0.073 (0.040)	0.072 (0.039)	0.075 (0.039)
L1: parent							
Family size (# children)			-0.231 (0.075) **				
L2: children (aggregates)							
Media use (mean)				0.485 (0.215) *			
Par. master degree (> median %)					0.401 (0.096) ***		
Liking formats (mean)						-0.777 (0.381) *	
Good feeling brand/product (mean)							-0.868 (0.369) *
Constant	2.839 (0.100) ***	2.876 (0.070) ***	2.958 (0.067) ***	2.879 (0.063) ***	3.088 (0.065) ***	2.882 (0.065) ***	2.875 (0.063) ***
Class-level variance	0.153	0.057	0.000	0.036	0.000	0.043	0.038
Individual-level variance	1.031	0.804	0.818	0.804	0.800	0.802	0.802
Log-likelihood	1137.344	1028.389	487.837	1023.898	920.372	1024.480	1023.349
n L2	22	22	20	22	20	22	22
n L1	387	386	185	386	352	386	386

Notes: Unstandardized parameter estimates with standard errors in parentheses. \*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$

### 4.4.3 Moral advertising literacy

Model 0 reveals that only 0.9% ( $\sigma^2_e = 0.914$ ,  $\sigma^2_u = 0.008$ ) of the variance in children's moral advertising literacy can be attributed to differences between classes (Table 3). The parent and peer variables did not make it to the integrated models.

In Model 1, containing the child variables, it is shown that children have greater moral ad literacy especially when they reflect more frequently on the ads they encounter, but also when they are more prone to avoiding ads – though the latter effect is less prominent.

The subsequent models add the many contextual influences from children's teachers as found in the preparatory analyses (Appendix C3) one by one. Children's moral ad literacy is higher when their teachers have less cognitive ad literacy (i.e., are less skilled in recognizing contemporary ad formats – Model 2) and when they less frequently discuss contemporary ad formats with their students (Model 3). This implies rejecting the H3 hypotheses for the current outcome, as these point in the opposite direction. The interaction effect also indicates that it is only when teachers talk little about these ad formats in class, that children's format awareness stimulates their moral ad literacy. Moreover, this model (relative to the null model) explains all of the little L2 variance there was between classes (from  $\sigma^2_u = 0.008$  to 0.000) and 26.4% of the L1 variance between individual cases (from  $\sigma^2_e = 0.914$  to 0.672).

Table 4-3 Stepwise multilevel regression on moral advertising literacy (reflecting on advertising's appropriateness)

Variables	Model 0	Model 1	Model 2	Model 3
L1: child				
Awareness formats				0.065 (0.060)
Recognition formats			0.125 (0.068)	
Reflecting on ads		0.410 (0.038) ***	0.415 (0.038) ***	0.394 (0.037) ***
Avoiding ads		0.090 (0.033) **	0.068 (0.034) *	0.082 (0.033) *
L2: teacher				
Recognition formats			-0.173 (0.083) *	
Discussing new ad formats				-0.179 (0.075) *
Awareness (child) x discussing new ad formats (teacher)				-0.223 (0.107) *
Constant	2.845 (0.052) ***	2.847 (0.042) ***	2.845 (0.042) ***	2.849 (0.041) ***
Class-level variance	0.008	0.000	0.000	0.000
Individual-level variance	0.914	0.691	0.679	0.672
Log-likelihood	1080.161	967.729	938.481	956.837
n L2	22	22	21	22
n L1	392	392	383	392

Notes. Unstandardized parameter estimates with standard errors in parentheses. \* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ .

## 4.5 Conclusion and discussion

This study investigated the extent to which children's advertising literacy for contemporary advertising can be explained through environmental characteristics, while reckoning with the children's own features. Multilevel techniques were used to explore both individual and group predictors of ad literacy (and its three dimensions) simultaneously, analyzing data obtained from the children themselves, their parents, classmates, and teachers.

Overall, a relatively high proportion of the variation in cognitive (12%) and attitudinal ad literacy (13%) can be explained at the group level. In other words, great similarities in these outcomes were found among children from the same class. Although this was not the case for moral ad literacy (1%), substantial teacher influences were revealed (see below).

Regarding cognitive ad literacy, peers' mediating and moderating role was highlighted by finding that the ad-format awareness in class strengthens the child's own awareness. A child who is more aware of the existence of contemporary formats has a higher level of cognitive ad literacy; however, this positive effect declines (or is supplemented by) the awareness present in the class. Interestingly, yet purely on the individual level, it was also shown that the effect of the child's awareness on cognitive ad literacy increases as he or she likes the formats more fervently.

Likewise, for attitudinal ad literacy, it was peers who had the strongest group-level influence. In particular, children are more skeptical toward advertising when their classmates use more media, like the contemporary ad formats less, and are less likely to have positive emotions when confronted with advertised brands or products – in other words: when their class is characterized by stronger consumer socialization (due to media experience; see John, 1999) and a counter-advertising culture. Attitudinal ad literacy levels are also higher for children with a lower number of siblings (indicating higher parental involvement) and, most significantly, for children from higher-SES classes (as indicated by parental educational attainment).

In general, however, children's cognitive and attitudinal ad literacy seems hardly affected by parental and teacher ad literacy and mediational efforts. This is different with moral ad literacy, in which the teacher exerts the most determinative influences, with the direction of these effects being quite remarkable. More specifically, children were found to reflect more often on advertising's appropriateness when their teacher possesses less cognitive ad literacy and engages less in active advertising mediation. Moreover, it is only in the latter condition – when the teacher barely talks with students about contemporary ad formats – that children's awareness of these formats has a positive effect on their moral ad literacy.

These results may carry several important implications, especially for scholars concerned with theory, methods and conceptualization, but also for practice (e.g., policy bodies and educators interested in developing interventions to stimulate children's advertising literacy).

## 4.5.1 Implications

Having established that children's ad literacy is substantially influenced by socio-contextual factors, it is strongly recommended to acknowledge that children are not independent subjects, but meaningfully nested within classes. Even if the researcher is not interested in the nature of class effects per se, statistical analyses should at least control for the grouped structure of the data (e.g., by adding a dummy variable for each class in a single-level regression analysis). In this way, scholars can guarantee more correct estimates and robust findings, and determine more clearly what are the actual effects of individual, psychological variables.

However, the current study shows that it is worth to focus on the nature of contextual influences, as it has revealed a veritable culture regarding advertising, and ad literacy in particular. More specifically, following the definition of culture, classes are characterized by a common, shared set of meanings, understandings, cognitions, beliefs, etc. (e.g., Van Houtte, 2005) with respect to advertising, that influence the individual members. In fact, ad literacy is affected by various cultures or at least meaningful social units, as constituted by children's own background, peers, and teachers.

First, it was found that although children's cognitive ad literacy is primarily determined by their own awareness of contemporary ad formats, this individual effect can be strengthened and even supplemented by the awareness present in class – which attributes an empowering quality to their peer group. As this finding corresponds with educational research showing that children's formally induced literacy knowledge is practiced and fine-tuned through peer group interaction (Corsaro & Nelson, 2003), future research testing class interventions could take advantage of such macro-processes to stimulate ad-format awareness more effectively.

Furthermore, this finding focuses the attention on the much-underestimated role of awareness, especially in studies investigating children's ad literacy for the newer, embedded formats. For instance, it is possible that children consciously notice the brands and products placed in an advergame, while not perceiving or labeling this practice as "advertising" (cf. TV commercials). Therefore, it should at least be assessed what children know about the studied ad format; and, when testing sponsorship-disclosure effectiveness, to minimally provide a concise explanation of the format about which the cue is supposed to warn.

Second, the presence and influence of a culture regarding attitudinal ad literacy is the most pronounced, with children being more ad-skeptical when their classmates are less compliant toward advertising. It could be further investigated whether this counter-ad culture is stemming from children's (consumer) socialization at home, as their attitudes toward advertising are also influenced by family size (indicating parental literacy involvement) and parental educational background (reflecting SES). Specifically, dedicated future studies could measure parental literacy involvement more directly, and SES more comprehensively (see Sirin, 2005). This should allow for testing Bourdieusian theories, for instance by investigating whether possible inequalities in children's ad literacy are caused by social-class differences in parental ad literacy involvement (cf. Hemmereichs et al., 2017); or whether teacher effects on children's ad literacy depend on class SES. Subsequently, such research could inform various ad-literacy interventions (e.g., educational sessions and awareness campaigns for parents) about how to reckon with socioeconomic differences between families, classes, and students.

It might be questioned, however, whether these attitudes toward advertising constitute a genuine, unambiguous dimension of ad “literacy” – that is, “attitudinal advertising literacy” (Rozendaal et al., 2011). On one hand, negative attitudes – whether toward advertising in general or specific ad formats, or indicated by resistance strategies – do seem to reflect some form of ad skepticism or vigilance. For instance, it was shown that the child’s general tendency to avoid ads is positively associated with all three dimensions of ad literacy – however, these effects were rather small. On the other hand, a number of interaction and mediation effects suggest that a positive disposition toward advertising can also facilitate elaborate, critical reflection. It was found, for instance, that as the child likes the ad formats more, the effect of ad-format awareness on cognitive ad literacy increases; and that moral ad literacy increases, as liking the formats leads the child to reflect more on ads. In other words, a certain “openness” toward advertising may actually stimulate children’s development of ad literacy, possibly by allowing for opportunities to learn from experience with consciously processing various enactments of ad tactics.

Although these results may appear somewhat paradoxical at first glance, they are compatible with the “double-edged desirability hypothesis” (e.g., Austin, Pinkleton, & Funabiki, 2007). Studies supporting this hypothesis show that people motivated to process a media message analytically may actually come to perceive this message as more desirable, as a result of having more attention for its likeable aspects. In the meantime, they will also process these aspects more critically due to a heightened awareness of persuasive intent, which may imply a decreased influence of desirability perceptions on decision-making. Put differently, positive affect toward advertising may not only increase susceptibility to persuasion, but also reflect critical thinking. Conversely, it should also be noted that critical thinking does not necessarily exclude persuasion, as people can allow themselves to be persuaded as a result of well-informed evaluation and decision-making. Studies show, for instance, that interventions meant to instill resistance toward deceptive, persuasive messages do lower susceptibility to manipulative ads, but also increase persuasion for ads using legitimate appeals (e.g., Sagarin, Cialdini, Rice, & Serna, 2002). As studies show that ad skepticism involves both logic-based and affective components of critical reflection (e.g., Austin, Muldrow, & Austin, 2016), scholars might reconsider their view of ad literacy as an “affective defense” that indiscriminately generates negative responses to ads.

To conclude for both cognitive and attitudinal ad literacy, this study indicates that peers are most influential in transferring advertising-related cognitions and attitudes. However, dedicated studies are needed to unravel underlying processes, for instance by examining network dynamics within classes. As some peers may exert more influence than others, it could be interesting to reveal responsible characteristics, and to examine whether these influences are caused by specific norms (e.g., descriptive, or rather injunctive norms). Such studies could inform class-based training sessions, especially those led by peers (e.g., Pinkleton, Austin, Cohen, Chen, & Fitzgerald, 2008) or by teachers who make use of interactions among students.

Third, although there seems to be no class culture regarding moral ad literacy – affirming that moral development varies greatly depending on the individual child (see McAlister & Cornwell, 2009) – it appears there is one among teachers. The higher they estimate their skills to recognize contemporary ad formats, and the more they discuss them in class, the less their pupils reflect on advertising’s



appropriateness. This could indicate that teachers who are more ad-literate and more involved in children's coping with advertising, are also more protective toward their pupils by portraying advertising in a negative light, thereby encouraging ad resistance, rather than moral reflection. Additionally, it could mean that teachers may not be that knowledgeable about newer ad formats after all. This would correspond with recent (qualitative) studies suggesting that parents' – and, therefore, possibly also teachers' – mediating role may have declined in the current context, as most of them would still primarily focus on traditional ads. More specifically, they would try to lower their children's susceptibility mainly for TV commercials for unhealthy food, being less aware of the prevalence of similar advertising in online media (Newman & Oates, 2014). The latter is confirmed by recent findings that parents' own ad literacy for such formats is rather low (Cornish, 2014; Evans & Hoy, 2016). Moreover, this is further corroborated by the current study's finding that children's cognitive and attitudinal ad literacy is hardly influenced by parents and teachers' ad literacy and mediational efforts.

Regarding parents specifically, their background characteristics have much clearer effects, yet the possible explanation may be all the more subtle. Probably useful here is Bourdieu's (1984) concept of "habitus", which is a system of ingrained dispositions, tendencies, or schemes organizing how individuals perceive and approach the external world. It is shared and generationally transferred by people of comparable backgrounds (e.g., in terms of education) and reflects their specific reality as conceived by particular socialization processes, experiences, and opportunities. Just as this concept – or more broadly, cultural capital – is often used to explain cultural patterns in media consumption, and recently also in media literacy (e.g., Buckingham, 2005), future research could do the same for ad literacy, for instance by applying this concept to the transfer of parents and teachers' attitudes and knowledge onto their children and pupils.

The general lack of (desired) parental and teacher effects found in this study does not imply, however, that mediational and educational actions to stimulate ad literacy are pointless. Rather, it suggests that such interventions need to be designed and continually adapted with the most current insights regarding ad literacy in mind. To start with, it could be derived from the present study that it is essential to increase awareness of contemporary ad formats not only among children, but also among their parents and teachers.

#### **4.5.2 Limitations**

Prior to conducting this study, several decisions were made, which have their merits, but also imply a number of shortcomings. One choice was to depart from the literature on children's advertising literacy, in which a lack of attention to environmental influences was identified. While this narrow focus may simplify ad scholars' research agenda, it could also cause them to overlook the overarching field of media literacy. As this field has a long tradition of researching the influences of parents, peers, and class interventions (e.g., Jeong, Cho, & Hwang, 2012; Scull, Kupersmidt, & Erausquin, 2014) on children's media processing, its many relevant insights should be acknowledged by future ad-literacy studies focusing on a particular source of external influence.

A second decision was to investigate children's dispositional (or possession of) and not situational (or use of) ad literacy. However, this choice may entail at least three limitations. First, it implies exclusion of some dominant concepts, such as "advertising literacy performance" (Rozendaal

et al., 2011) – which is by definition a situational construct, as it pertains to the actual retrieval and application of ad-related knowledge, and should be measured during or after showing specific ads. Second, the current study's dispositional constructs needed to be assessed using self-perceived measures. This may have been especially problematic with regard to cognitive ad literacy as it was measured by asking children how good they think their ad-recognition skills are, and thus potentially reflected children's self-esteem and social desirability. Likewise for the related cognitive predictor "ad-format awareness", of which the items had to be preceded by an explanation of the formats. Therefore, it is important for follow-up studies to also examine situational constructs, which can be assessed more directly. Third, this study's constructs were directly measured among the actors involved, while research has revealed substantial discord between children and parent reports within the same family (e.g., Fujjoka & Austin, 2003 on parental mediation and family communication styles). As this might have led falsely to the conclusion that parental characteristics are of little importance to children's ad literacy, future work in this area might consider relying on children's reports about their parents.

A third choice was to use multilevel techniques, primarily to identify group-level effects, while controlling for individual-level variables that are known to be related to ad literacy. However, as these variables also reoccur at the group level, preference was given to those constructs that can be meaningfully aggregated to contextual variables (e.g., individual attitudes to a counter-advertising class culture). Due to the latter requirement, important yet highly individual core developmental predictors of ad literacy, such as Theory of Mind and emotion regulation (e.g., Lapierre, 2015, 2016), were not included in the conceptual model. Conversely, however, future research could certainly include these predictors to reveal their purely individual effects more clearly by controlling for known contextual influences.

Another possible bias concerns the study sample, which might not be representative of the country population of schools. Nevertheless, this is the case for most advertising-literacy research, and it indicates that clear group influences can be detected even in moderately sized samples that are not primarily designed to identify such effects. Future studies that are fully dedicated to unraveling macro processes concerning ad literacy, however, can be recommended to randomly select schools in multiple stages to ensure the necessary variability in school features that are known to be associated with students' literacy outcomes. A related issue is the selection of external (f)actors with possible influence on children's ad literacy. The current article has demonstrated that a substantial portion of the differences between children can only be explained by group-level processes; however, the selected actors (i.e., parents, peers, and teachers) and their characteristics could certainly not fully account for this variation. Therefore, future research could investigate the influence of other candidates, for instance school features (e.g., media infrastructure), using three-level hierarchical regression analyses.

Despite these limitations, this study contributed to extant advertising-literacy research by expanding the classic, primarily individual approach to include relevant social factors. In this way, researchers should be encouraged to enrich the many valuable psychological insights on ad literacy with the social forces that are innate to advertising and obviously cannot be ignored. At the very least, the much-underestimated importance of peers in young children's lives should be reaffirmed. Furthermore, now that it has been established that children's dispositional ad literacy is subject to such contextual influences, it seems worthwhile for further research to focus on situational measures – which

are perhaps also more directly influenced by core developmental variables. This should allow for investigating whether children actually use the advertising literacy they possess, when considering their environment.

## 4.6 References

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## 4.7 Appendices

### Appendix A

#### A1 Construction of Indexes vs. Scales

Indexes (and not scales) were constructed with those items for which notable differences can be expected between ad formats, and more specifically the awareness, recognition, liking, and appropriateness evaluation of these formats. This is because an index summarizes (or builds up) indicators that “compensate” each other without considering their intercorrelation. For example, children’s awareness of the existence of TV commercials is much higher compared with other ad formats, but when awareness scores for all formats are added up, a single construct emerges representing children’s awareness of contemporary formats in general. Therefore, it is contrasted with scales, which add up alternative indicators of the same, latent concept (Babbie, 2012). For instance, the outcomes’ “attitudes toward advertising” and “moral advertising literacy” consist of items that are all considered to be expressing a similar, general disposition with which children may approach all kinds of advertising. Cronbach’s alpha is only calculated for scales, as it is not suitable for indexes.

#### A2 Description of Studied Ad Formats within Survey

“The questions below are about...” 1) “...TV commercials. These are short advertising movies interrupting TV programs, or shown between different TV programs”; 2) “...product placement, whereby advertising is made within TV programs and movies, by showing brands and products. This is for instance the case when you see an actor consuming a beverage of a particular brand”; 3) “...advergames. These are free games on the Internet that are actually advertising, and in which you often have to play with the brands and products (to increase your score)”; 4) “...online banners. These are images (in the shape of bars, posters, or pop-ups) on websites that contain advertising, and on which you can click to go to the website of a particular brand or product”; 5) “...pre-roll advertising. Pre-rolls are ad movies on the Internet that you have to watch before you can see the movie you actually looked up. This is the case on YouTube, for instance, where you often get to see an ad movie first.”

Note: These specific formats were chosen because they are often aimed at minors (see Cauberghe, De Pelsmacker, Hudders, Panic, & Destoop, 2012) and each has unique characteristics that make them different from the others. In brief, TV ads mainly revolve around spreading commercial messages, online banners spread such messages on virtually all websites, product placement integrates these messages in editorial media content, advergames make such media interactive, and pre-roll videos use retargeting techniques that allow advertising to be tailored personally to children’s preferences.

#### A3 Rationale for Using Multilevel Techniques

Multilevel analysis offers a great added value when examining how people are influenced by their environment, and especially when that environment is a larger group of which people are a part, for instance, when studying children in their class contexts (Snijders & Bosker, 2012). In such cases,



children can be considered meaningfully “nested” in classes. Importantly, this implies that two randomly selected children from the same class will be more alike than two children from a different class because children from the same class are all exposed to the same influences (e.g., teacher and classmate abilities), which may affect their individual outcomes (such as literacy achievement). This further implies that the scores on these outcomes are likely to be more similar within a single class than when comparing them with the scores from children from other classes. In this regard, single-level multiple-regression models may fall short, as they assume that students are independent (statistical) units having uncorrelated residual scores within the same class. Consequently, as the clustering of these students within classes is ignored, the standard errors of the regression coefficients may be underestimated, resulting in too narrow confidence intervals and too small p-values (which are most severe for predictors measured at the group level). This could ultimately lead to finding and reporting “real” effects on an outcome, while the findings may actually be attributed to chance. To overcome this issue, or, in other words, to estimate correct standard errors, analysis should allow for variation between groups. This can be achieved by using multilevel techniques, as they make it possible to simultaneously examine group- (L2) and individual-level effects (L1) and their interactions (L1 x L2) on individual-level outcomes, while controlling for the interdependence of individuals within those groups (here: classes). Furthermore, multilevel analysis also permits examining the causes of differences both between groups, as between individuals within groups. Therefore, and perhaps most interestingly, it allows identification of macro-processes that affect individuals over and above the effects of analogous individual-level variables (Roux, 2002).

#### **A4 Analysis Procedure**

**Step 1.** Bivariate (Pearson) correlation coefficient analyses were performed to explore associations between study outcomes (i.e., the three dimensions of ad literacy) and the other variables included in the study (see Appendix B).

**Step 2.** The effects of the variables that were correlating significantly in the previous step (per outcome) were analyzed via multilevel techniques, to check whether the relationships still hold when considering the data’s nested structure, and to examine the distinct contribution per predictor (block) (set apart by “;” in the reporting of results). This was done separately for the effects of L1 variables as measured among a) the children and b) their parents, and for the L2 variables c) as aggregated from the children and parents’ data and d) the teachers’ data.

For the L1 individual level (a and b), successive models are expanded with new blocks of variables in a thematic manner (e.g., first sociodemographics, then cognitive components, attitudinal predictors, measures of coping strategies, etc.). Possible interactions are explored, in the first place between cognitive and attitudinal components (cf. literature study). In each subsequent model, the effects that proved to be insignificant in the previous model are removed.

For the L2 group/class level (c and d), each model analyzes each L2 variable separately, as the current group-level sample size only allows for a maximum of two to three L2 variables per model (Snijders & Bosker, 2012). More specifically, for each L2 group predictor, the following is repeated in three subsequent models. First, the main effect of the L2 variable is analyzed. Second, it is tested as to whether this L2 effect becomes insignificant when adding its L1 analog variable (if available). As this

could indicate the existence of an indirect effect of the L2 variable on the outcome through the L1 variable, such relations are investigated further with dedicated mediation analyses. Third, it is explored whether there is a cross-level interaction effect between the group/class and individual level variables (indicating a "reinforcing" or "weakening" effect of the L2 on the L1 variable). All significant interaction effects are further analyzed with dedicated moderation analyses to check their linearity (by assessing the effect of X on Y on three values of the moderator).

It should be noted that to estimate peer-group (c) effects, the analyses do not use the aggregate of the outcome as an L2 group predictor (e.g., the effect of class attitudes toward advertising on the same attitudes of the individual children), as using a variable to predict itself should be avoided (Manski, 1993).

For brevity and overview, the results with regard to this second step (see Appendix C) only covers significant effects, with a focus on mediation and interaction.

**Step 3.** The article works toward more integrated multilevel models, to explain observed variance per outcome, and to determine the predictors' (that proved to have a significant effect in the previous step) combined contributions. The null model (i.e., the unconditional model, without predictors) allows calculating the variance partition coefficient (VPC), which indicates the proportion of variance attributed to the group vs. the individual level. The first model adds all the significant L1 child variables (a) from the exploratory ML analyses simultaneously. The next model adds the L1 parent variables (b) on top of that, thereby controlling for the child variables from the first model. (These parent variables are removed from the following models, however, as retaining them would lower the sample size too much.) The next model(s) add(s) L2 peers' aggregate variables (c – controlling for a), and the final model(s) exclude(s) insignificant effects from the previous model, and adds L2 teachers' effects (d – controlling for a). In case of too many L2 variables to be tested, these are analyzed in separate models (though each time controlling for a). These results are presented in tables and are fully covered and discussed in the main article – mediation effects are not included, however, as the presence of L1 variables would render their L2 analogs insignificant.

## Appendix B

Table B1

Table 4-4 Pearson correlations between study variables

	cogAL	attAL	morAL
<b>L1: child</b>			
Advertising literacy (outcomes)			
cogAL (recognition formats)	-	0,013	0,127 *
attAL (liking advertising)	0,013	-	0,037
morAL	0,127 *	-0,037	-
Demographics			
Gender (refcat: fem.)	0,191 **	-0,007	-0,087
Age	0,132 **	0,266 **	-0,045
Media use	0,113 *	0,141 **	-0,066
Cognitive aspects			
Awareness formats	0,703 **	0,052	0,098
Attitudinal aspects			
Liking formats	-0,116 *	-0,501 **	0,115 *
Finding formats appropriate	0,041	-0,376 **	0,032
Coping strategies			
Reflecting on ads	0,048	-0,108 *	0,485 **
Avoiding ads	0,252 **	0,196 **	0,146 **
Adv. product desire	-0,023	-0,175 **	0,123 *
Good feeling brand/product	-0,029	-0,228 **	0,168 **
<b>L1: parent</b>			
Demographics			
Gender (refcat: fem.)	-0,103	-0,036	0,031
Age	0,018	0,136	0,014
Education: master degree (vs rest)	0,154 *	0,031	0,028
Family size (# children)	-0,003	-0,177 *	0,032
Cognitive aspects			
Awareness formats	0,074	-0,095	0,064
cogAL (recognition formats)	0,088	-0,106	0,157 *
Attitudinal aspects			
Liking formats	-0,066	-0,025	-0,141
Finding formats appropriate	0,014	-0,074	-0,071
morAL	0,089	-0,023	0,119
Coping strategies			
Reflecting on ads	0,072	0,036	0,055
Avoiding ads	0,154 *	-0,034	0,114
Adv. product desire	-0,029	0,030	0,030
Good feeling brand/product	-0,040	0,138	-0,005
Parental advertising mediation			
Discussing new ad formats	0,112	0,014	-0,028

Notes. \* $p < .05$ ; \*\* $p < .01$

Table B2

Table 4-5 Pearson correlations between study variables (continued)

	cogAL	attAL	morAL
<b>L2: peers (children aggregates)</b>			
Demographics			
Gender ratio (% boys)	0,042	0,046	0,016
Grade (6th vs 4th)	0,128 *	0,308 **	-0,051
Media use (mean)	0,090	0,257 **	0,017
Par. master degree (> median %)	0,079	0,222 **	0,101
Cognitive aspects			
Awareness (mean)	0,283 **	0,169 **	-0,016
cogAL (recognition formats) (mean)	0,387 **	0,042	0,035
Attitudinal aspects			
attAL (liking advertising) (mean)	0,035	0,426 **	-0,043
Liking formats (mean)	-0,070	-0,331 **	0,069
Finding formats appr. (mean)	-0,006	-0,293 **	0,012
morAL (mean)	0,057	-0,077	0,241 **
Coping strategies			
Reflecting on ads (mean)	-0,013	-0,072	0,147 **
Avoiding ads (mean)	0,160 **	-0,079	0,038
Adv. product desire (mean)	-0,067	-0,226 **	0,035
Good feeling brand/product (mean)	-0,085	-0,236 **	0,081
<b>L2: teacher</b>			
Demographics			
Gender (male vs female)	-0,017	0,123 *	0,049
Age	0,061	0,038	-0,081
Cognitive aspects			
Awareness formats	0,054	0,093	-0,029
cogAL (recognition formats)	0,062	0,015	-0,103 *
Attitudinal aspects			
Liking formats	-0,074	-0,042	0,039
Finding formats appropriate	0,023	-0,093	0,154 **
morAL	-0,051	-0,108 *	0,059
Coping strategies			
Reflecting on ads	-0,124 *	0,017	0,012
Avoiding ads	0,047	-0,049	-0,011
Adv. product desire	0,059	-0,145 **	0,073
Good feeling brand/product	0,000	-0,085	0,122 *
Teacher advertising mediation			
Discussing new ad formats	0,016	0,087	-0,118 *

Notes. \* $p < .05$ ; \*\* $p < .01$

## Appendix C

### C1 Cognitive Advertising Literacy: Recognition of Advertising Formats

In Step 2, the significant variables from the previous step are tested via exploratory multilevel regression analyses, showing that children's cognitive advertising literacy is significantly related to:

- a) their gender (refcat. = girl;  $\beta = 0.26$ ,  $SE = 0.07$ ,  $p < .001$ ) and age ( $\beta = 0.08$ ,  $SE = 0.04$ ,  $p < .05$ ); ad-format awareness ( $\beta = 0.62$ ,  $SE = 0.03$ ,  $p < .001$ ) – which explains away the age effect from the previous block; interaction between ad-format awareness and ad-format liking ( $\beta = 0.11$ ,  $SE = 0.05$ ,  $p < .05$ ); ad avoidance ( $\beta = 0.06$ ,  $SE = 0.02$ ,  $p < .001$ ); and the interaction between ad avoidance and ad-format liking ( $\beta = -0.05$ ,  $SE = 0.02$ ,  $p < .05$ ). Additionally, dedicated mediation and moderation analyses (Hayes, 2013) confirm the indirect effect of age on cognitive advertising literacy through ad-format awareness ( $b = 0.06$ ,  $SE = 0.02$ ,  $p < .001$ ) (PROCESS Model 4) and show that the negative effect of ad-format liking on cognitive advertising literacy ( $b = -0.14$ ,  $SE = 0.06$ ,  $p < .05$ ) only occurs among the highest values ( $M = 4.66$ ) of ad avoidance (PROCESS Model 1).
- b) their parents' educational attainment level ( $\beta = 0.26$ ,  $SE = 0.12$ ,  $p < .05$ ); and ad avoidance ( $\beta = 0.09$ ,  $SE = 0.04$ ,  $p = .05$ ).
- c) ad-format awareness in the class ( $\beta = 0.86$ ,  $SE = 0.16$ ,  $p < .001$ ) – which is explained away by the child's awareness; and the interaction between child and class awareness ( $\beta = -0.26$ ,  $SE = 0.13$ ,  $p < .05$ ); and ad avoidance in class ( $\beta = 0.32$ ,  $SE = 0.14$ ,  $p < .05$ ) – explained away by the child's ad avoidance. Additional mediation analyses (PROCESS Model 4) confirm the indirect effect of class awareness on cognitive advertising literacy through child awareness ( $b = 0.63$ ,  $SE = 0.12$ ,  $p < .001$ ); and the indirect-only effect of class ad avoidance on cognitive advertising literacy through child ad avoidance ( $b = 0.11$ ,  $SE = 0.03$ ,  $p < .001$ ).
- d) their teacher's reflecting on ads ( $\beta = -0.11$ ,  $SE = 0.05$ ,  $p < .05$ ).

### C2 Attitudinal Advertising Literacy: Disliking Advertising in General

Step 2 tests the significant variables from Step 1 through exploratory multilevel analyses, demonstrating that children's attitudinal advertising literacy is significantly related to:

- a) their age ( $\beta = 0.19$ ,  $SE = 0.06$ ,  $p < .01$ ); ad-format liking ( $\beta = -0.65$ ,  $SE = 0.10$ ,  $p < .001$ ); and ad avoidance ( $\beta = 0.08$ ,  $SE = 0.04$ ,  $p < .05$ ).
- b) their family size ( $\beta = -0.25$ ,  $SE = 0.09$ ,  $p < .01$ ).
- c) their class grade level ( $\beta = 0.66$ ,  $SE = 0.14$ ,  $p < .001$ ); media consumption ( $\beta = 0.79$ ,  $SE = 0.26$ ,  $p < .01$ ); parental educational attainment ( $\beta = 0.53$ ,  $SE = 0.18$ ,  $p < .01$ ); ad-format awareness ( $\beta = 0.73$ ,  $SE = 0.37$ ,  $p < .05$ ); the interaction between child and class ad-format awareness ( $\beta = 0.67$ ,  $SE = 0.30$ ,  $p < .05$ ); ad-format liking ( $\beta = -1.66$ ,  $SE = 0.30$ ,  $p < .001$ ) – over and above

the child's liking; ad-format appropriateness evaluation ( $\beta = -1.56$ ,  $SE = 0.38$ ,  $p < .001$ ) – over and above the child's evaluation; advertised product desire ( $\beta = -0.74$ ,  $SE = 0.29$ ,  $p < .05$ ) – over and above the child's desire; and feeling good about advertised brands/products ( $\beta = -1.30$ ,  $SE = 0.47$ ,  $p < .05$ ) – over and above the child's feelings.

d) none of the teacher variables.

### **C3 Moral Advertising Literacy: Reflecting on Advertising's Appropriateness**

Step 2 explores the effects of significant Step 1 variables via multilevel techniques, finding that children's moral advertising literacy is significantly associated with:

- a) their ability to recognize ad formats ( $\beta = 0.19$ ,  $SE = 0.08$ ,  $p < .05$ ); ad-format liking ( $\beta = 0.19$ ,  $SE = 0.07$ ,  $p = .01$ ); reflecting on ads ( $\beta = 0.38$ ,  $SE = 0.04$ ,  $p < .001$ ) and avoiding ads ( $\beta = 0.10$ ,  $SE = 0.04$ ,  $p < .01$ ) – these two "coping" variables explain away the effects of recognition and liking (as added in the previous block). Regarding the latter, additional mediation analyses (via PROCESS Model 4; Hayes, 2013) show three indirect effects: a positive effect of recognition on moral advertising literacy through ad avoidance ( $b = 0.04$ ,  $SE = 0.02$ ,  $p < .05$ ); a positive effect from ad-format liking on moral advertising literacy via reflecting on ads ( $b = 0.12$ ,  $SE = 0.04$ ,  $p < .01$ ); and a negative effect from ad-format liking on moral advertising literacy through ad avoidance ( $b = -0.06$ ,  $SE = 0.02$ ,  $p < .01$ ).
- b) their parents' ability to recognize ad formats ( $\beta = 0.24$ ,  $SE = 0.11$ ,  $p < .05$ ).
- c) their class' reflecting on ads ( $\beta = 0.44$ ,  $SE = 0.15$ ,  $p < .05$ ) – which is explained away by the child's own ad reflection. Further mediation analysis (PROCESS Model 4) shows an indirect-only positive effect from the class' ad reflection on moral advertising literacy via the child's ad reflection ( $b = 0.41$ ,  $SE = 0.08$ ,  $p < .001$ ).
- d) their teacher's ability to recognize ad formats ( $\beta = -0.20$ ,  $SE = 0.10$ ,  $p < .05$ ) – over and above the child's own recognition abilities; ad-format appropriateness evaluation ( $\beta = 0.19$ ,  $SE = 0.09$ ,  $p < .05$ ); feeling good about advertised brands/products ( $\beta = 0.16$ ,  $SE = 0.06$ ,  $p < .05$ ) – over and above the child's own feelings; discussing new ad formats ( $\beta = -0.21$ ,  $SE = 0.09$ ,  $p < .05$ ) – over and above the positive effect of the child's ad-format awareness; and the interaction between the child's ad-format awareness and the teacher's discussing of new ad formats ( $\beta = -0.38$ ,  $SE = 0.12$ ,  $p < .01$ ). Concerning the latter, moderation analysis (PROCESS model 1) reveals that the positive effect of the child's ad awareness on moral advertising literacy ( $b = 0.33$ ,  $SE = 0.09$ ,  $p < .001$ ) only occurs among the lowest value ( $M = 2.25$ ) of the teacher's discussing the new ad formats

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## **5 ACTIVATING CHILDREN'S ADVERTISING LITERACY WITH EXPLICIT FOREWARNING CUES**

### **Abstract**

In spite of the EU's prohibition on brand placement in children's programs, it is argued that children may still be exposed to this advertising format in many occasions. Consequently, and as children may have even more difficulties than adults to distinguish the commercial content from the editorial media content in which it is embedded, an advertising disclosure may be necessary to enable them to cope with brand placement. Entailing two one-factorial between-subjects experiments, the current article examined how different types of brand placement warning cues influenced cognitive advertising literacy and the attitude toward the placed brand, among children between 8 and 10 years old.

In a first study, it was investigated how these outcomes were influenced by warning cues with different perceptual modalities (no vs. auditory vs. visual cue,  $N = 98$ ). The results showed that a visual warning cue was more effective than an auditory warning cue (vs. no warning cue) in addressing cognitive advertising literacy. However, this higher cognitive advertising literacy could not account for the effect of the visual warning cue on brand attitude.

In a second study, it was examined whether the effectiveness of this visual warning cue was influenced by the timing of disclosure (cue prior to vs. during media containing brand placement,  $N = 142$ ). Additionally, it was tested whether the effect of the cue on brand attitude could be explained by cognitive advertising literacy if children's sceptical attitude toward the brand placement format was taken into account. The results showed that cognitive advertising literacy was higher when the cue was shown prior to than during the media content. This cue-influenced cognitive advertising literacy resulted in a more positive brand attitude, but only among children who were less sceptical toward brand placement. This positive relation disappeared among moderately and highly sceptical children. These findings have significant theoretical, practical and social implications.

**Keywords:** children; sponsorship disclosure; brand placement; advertising literacy; scepticism

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### **5.1 Introduction**

Public institutions and policy makers increasingly express concerns about covert marketing practices such as brand placement. As brand placement integrates sponsored content in non-commercial, editorial content of, for instance, television (TV) programs and movies, the boundaries between advertising and its entertaining context are severely blurred (Balasubramanian, Karrh, and Patwardhan 2006). Therefore, consumers are less likely to identify this format as advertising, and consequently, to

activate their advertising literacy. In other words, they will not be triggered to critically reflect on the commercial intent and techniques of the embedded advertisement, and to make use of their advertising-related skills to cope with them (Friestad and Wright 1994). Ultimately, this makes them more likely to be persuaded without being aware of it (see, e.g., Nebenzahl and Jaffe 1998). In order to counteract possible deception through preconscious (and perhaps unwanted) persuasion, the European Union (EU) has obliged broadcasters in 2010 to explicitly inform their audience when media content is sponsored, for instance through sponsorship disclosure (Boerman, van Reijmersdal, and Neijens 2014).

Recent studies have provided fairly convincing evidence for the effectiveness of brand placement warning cues in activating people's advertising literacy and/or altering their susceptibility for persuasion (e.g., Boerman, van Reijmersdal, and Neijens 2012; Tessitore and Geuens 2013). However, as this body of literature is still in its infancy, it is characterized by several gaps and issues.

A first major hiatus is that all of these studies have been conducted among adults. This could be justified by the prohibition of brand placement in children's programs, as commanded by the EU's Audiovisual Media Services Directive (2012). However, the effectiveness of this ban can be called into question, as children may still be exposed to brand placement in at least four occasions. First, it has to be noted that the EU does allow brands to appear in programs when products are provided free of charge. Second, media originating from countries outside the EU that have a more lax regulation concerning sponsorship identification (such as the United States, where rules applying to brand placement directed at children are lacking (Federal Communications Commission 2008)) are aired on TV anyway, without consideration of the EU ban. Third, the EU directive does not refer to media that are labelled as suitable for all ages, thus including children. Fourth, and related, it cannot be overlooked that children are also exposed to brand placement when they join older siblings and parents watching programs intended for mature audiences. These reservations imply that the need for brand placement disclosures is actually most pressing in the case of children, as they are cognitively immature and more inexperienced as consumers (John 1999; Rozendaal et al. 2011) and therefore less proficient in distinguishing commercial from media content than adults; leaving the door wide open for persuasion outside of their awareness (see, e.g., Auty and Lewis 2004).

Second, it is also not known which *types* of warning cues could be most effective in triggering children's advertising literacy to avert unwanted commercial influences. A small number of studies conducted among adults (e.g., Boerman, van Reijmersdal, and Neijens 2014) have already shown that the effectiveness of a cue is highly dependent on its specific characteristics (such as timing and duration). However, this dependency might be even more pronounced among children, as their more limited cognitive capabilities may heighten their sensitivity for the many ways in which cue features may address their scarce attention.

A third issue in most of the extant literature is the belief that cognitive advertising literacy must result in decreased persuasion. However, as children's advertising is typically highly cognitively and emotionally demanding, the assumption that they will be able and motivated to use their cognitive advertising literacy for critically processing integrated commercial messages might be untenable. Therefore, one should also consider the possible affective, attitudinal processing mechanisms which might cost children less effort to cope with the advertising directed at them (Rozendaal et al. 2011).

In order to deal with these issues, the current study examines whether a warning cue is effective in triggering young children's cognitive advertising literacy and altering brand placement effects, and whether this effectiveness is influenced by the cues' perceptual modality (visual vs. auditory) and timing (before vs. during the sponsored content). Additionally, it is tested whether the relationship between the cue-influenced cognitive advertising literacy and advertising effects is contingent on children's sceptical attitude toward brand placement.

## **5.2 Literature review**

### **5.2.1 Warning cues for activating children's advertising literacy**

Warning cues are implemented in media containing brand placement because they are believed to trigger consumer's advertising literacy, which refers to the ability to recognize, understand and evaluate advertising (Malmelin 2010). This form of literacy mainly relies on persuasion knowledge (referred to as cognitive advertising literacy), which consists of cognitive beliefs about marketers' motives, strategies and tactics (Friestad and Wright 1994). In the first place, these cues aim to alert consumers for the upcoming persuasive attempt, and to help them distinguish the commercial message from the editorial media content in which it is embedded (Tessitore and Geuens 2013). The recognition of the advertisement as such should subsequently make them reflect on the advertisement's commercial intent and persuasive tactics in a critical manner (Friestad and Wright 1994). As this critical processing is believed to function as a 'cognitive defence' against the advertisement (e.g., Brucks, Armstrong, and Goldberg 1988), a cue is assumed to 'mitigate' advertising effects, such as brand attitudes (An and Stern 2011).

Research conducted among adults indeed finds warning cues to be effective in activating cognitive advertising literacy and altering the persuasive effects of brand placement. That is, some studies show that cues can directly temper intended effects such as brand recall and attitude (Campbell, Mohr, and Verlegh 2013; van Reijmersdal 2015) and product claim acceptance (Dekker and van Reijmersdal 2013). Other studies demonstrate that the cues' weakening impact on brand placement effects (e.g., brand attitude and purchase intention) occurs through the activation of cognitive advertising literacy (Boerman, van Reijmersdal, and Neijens 2012; Boerman, van Reijmersdal, and Neijens 2014; Tessitore and Geuens 2013; Wei, Fischer, and Main 2008).

It is not known, however, whether such warning cues are equally effective in the case of children. The nature of the contemporary, integrated advertising formats may pose considerable cognitive and affective challenges to children that could nullify the warning cues' endeavour to make them recognize and reflect on the advertising's commercial intentions. Firstly, the highly entertaining and often overstimulating media context in which the advertisement is embedded may demand most of children's already limited cognitive capacity (Buijzen, Van Reijmersdal, and Owen 2010; Lang 2000), leaving few cognitive resources to identify the persuasive elements in the first place (Boerman, van Reijmersdal, and Neijens 2012). Secondly, even when a cue enables children to recognize the commercial content, they may not be motivated to subsequently reflect on the advertisement's commercial intentions, as children's advertising is heavily laden with emotional appeals (Wicks et al.

2009), increasing the likelihood that they will rather affectively engage with the entertaining content (Rozendaal et al. 2011).

A couple of studies indeed found warning cues to be ineffective in activating children's cognitive advertising literacy for advergames (see An and Stern 2011; Panic, Cauberghe, and De Pelsmacker 2013). Advergames, however, might be a particularly exacting format as they embed advertising in an interactive and highly immersive game environment, which may demand exceptionally much from children's cognitive resources and motivation that could be used to identify and reflect on the integrated commercial elements. Therefore, warning cues might be more promising in case of brand placement in 'traditional' media such as TV programs and movies.

### **5.2.2 Warning cue modality**

It is usually neglected that a warning cue may adopt many forms (see, e.g., An and Kang 2013), which could influence its intended effects. It has been suggested that when a cue is found not to achieve its desired goal, this may be due to deficiencies in the details of the cue itself (An and Stern 2011). In fact, a small number of studies conducted among adults have shown that the effectiveness of a warning cue for brand placement is largely determined by its characteristics such as duration (Boerman, van Reijmersdal, and Neijens 2012), timing (Boerman, van Reijmersdal, and Neijens 2014) and message content (van Reijmersdal 2015) of the cue.

It is somewhat remarkable, though, that the most prominent cue feature, that is, its perceptual modality (e.g., whether it is presented visually or auditory), has not yet been the subject of academic research in this context. Moreover, among children, research in which brand placement warning cue characteristics are linked to cue effectiveness is completely lacking. However, as children's cognitive resources are notably more limited than those of adults, it is all the more important to ascertain the most adequate ways in which cues may capture their scant attention. Therefore, the first study within this article aims to investigate whether a warning cue is effective in terms of addressing young children's cognitive advertising literacy and adapting their response to the intended effects of brand placement, and more specifically, whether this effectiveness is contingent on the perceptual modality (visual versus auditory presentation) of the cue.

As disclosures for brand placement in traditional media have been studied almost exclusively by presenting the adult participants with a visual warning cue, it is not known whether the cue's effectiveness varies along its perceptual modality. There is one study conducted among children in which cue modality was manipulated, though in the context of a more recently introduced advertising format, namely advergames. In this study, An and Stern (2011) found that an auditory warning cue (i.e., a voice-over when the game started) was more effective than a visual ad break in mitigating advertising effects (here: brand recall and preference). It must be noted, however, that both cues were only presented once the game had started. Therefore, as the children were already immersed in a gaming environment that was already highly saturated in terms of visual stimuli, the auditory cue might have been more intrusive and alerting (see Russel 2002) than the visual cue.

In the first study in the current article, however, children are exposed to either a visual or an auditory warning cue prior to the media including brand placement. In other words, they have the possibility to devote all of their cognitive resources to the cue and its message, without having to share

them with the entertaining media content. Therefore, it can be expected that the advantages of visual information, as revealed by many psychological studies, will prevail among children in the case of a forewarning cue for brand placement. In particular, these studies found solid proof that picture memory is superior, that visual stimuli are processed more easily and automatically than auditory ones (as the latter calls for more cognitive capacity), and that visual information is better memorized (as it is encoded in both a visual and a verbal manner) (see An and Stern 2011). Hence, the following hypothesis is proposed:

**H1:** A visual warning cue will be more effective than an auditory warning cue in terms of influencing children's cognitive advertising literacy and mitigating brand placement effects (here: brand attitude).

## 5.3 Study 1

### 5.3.1 Method

#### 5.3.1.1 Design and procedure

To test the first hypothesis, an experiment was conducted using a single factor (warning cue modality) between-subjects experimental design, including three levels of perceptual modality: no cue, a visual warning cue, and an auditory warning cue. 98 third-grade students between 8 and 10 years old ( $M_{age} = 8.45$ ,  $SD = 0.63$ ; 50% girls), recruited from four primary schools in a rural area in Flanders (Belgium), participated in this study. This limited age range was selected because it guarantees the participation of only the 'cued processors' (7- to 11-year olds), who are believed to have developed basic advertising skills, but are also supposed to need a warning cue for its activation; hereby overlap is avoided with the older segment of 'strategic processors', who can more spontaneously enact strategies to process advertising (John 1999). The participants were randomly assigned to one of the three experimental conditions ( $N_{nocue} = 30$ ,  $N_{visualcue} = 33$ ,  $N_{auditorycue} = 35$ ). Between these conditions no age differences were found, as demonstrated by a Scheffé post hoc test ( $p > .05$ ). Prior to conducting the experiment, approval was obtained from the ethical review board of the researchers' university faculty, and parental informed consent was granted for all the children participating in this study.

Upon their arrival in class, each of the three groups of children were asked to watch a short TV program excerpt including brand placement, preceded by one of the three cue modalities. In this stage of the experiment, the children were not yet aware of the goal of the experiment.

Once the movie had ended, the children were asked to fill out a short questionnaire in order to assess their level of cognitive advertising literacy and their attitudes toward the advertised brand. Considering the limited language and reading skills of the young respondents, the answer options were labelled both verbally and nonverbally with smileys, visual icons or pictures. To support the children in completing the survey, each question was individually displayed using a projected Power Point presentation and read aloud by the researchers. At the end of the experiment, the children were informed about the study they participated in, and were given a short course on the rise of new advertising formats.

### 5.3.1.2 Stimulus material

All of the participating children were asked to watch a 7 minute TV program excerpt (from a popular kids channel in a West-European country) about cooking 'sausage rolls' (see Appendix, Figure 5-5). The footage included a prominent brand placement for a well-known ketchup product. This product was well integrated in the 'story line' of the movie, as it was repeatedly used in the cooking process. The ketchup bottle came clearly into focus five times, and was once shown intermittently for 33 seconds. Moreover, it was used in a humorous context, appealing to children's emotions.

In the first experimental condition, the video clip was preceded by a visual cue including a red warning triangle, with the message 'Caution, this program contains advertising' (see Appendix, Figure 5-6). The exposure time for the cue was fixed at 6 seconds, which is in accordance to the finding of Boerman et al. (2012) that a 6-second TV sponsorship disclosure is more likely to activate both cognitive advertising literacy and critical feelings toward the sponsored content (in comparison to a shorter, 3-second disclosure). The second group was given an auditory version of the first cue, with the warning triangle replaced by an alarming sound, and the same message being spoken. Both cue messages were formulated in Dutch, as this was the children's first language. For the third group, the control condition, the footage was not accompanied by a warning cue.

### 5.3.1.3 Measures

The measure for *cognitive advertising literacy* was adapted from Mallinckrodt and Mizerski (2007), and covers the main aspects as identified in the literature, namely the recognition of advertising and the understanding of its commercial nature and intent (for an overview, see Ham, Nelson, and Das 2015). This measure added the scores of the 'correct' answers (coded as 1, and the other, 'incorrect' ones, as 0) on four questions, resulting in a normally distributed index ranging from 0 to 4 ( $M = 1.80$ ,  $SD = 0.93$ ). The first question probed for advertising/brand recognition, by asking the respondents: 'Did you see a brand in the program?' with response options 'yes' (1) or 'no'. After informing the children that ketchup brand X could be seen in the TV program, a second question assessed their understanding the commercial source: 'Who placed ketchup brand X in the program?' with response options 'the teacher', 'the researcher', 'the kids channel/ketchup brand X' (1) and 'I don't know'. The third and fourth question assessed the understanding of persuasive intent: a) 'Why is ketchup brand X shown in the program?' with answer options 'to make me cook better', 'to make me like the ketchup brand X' (1), 'to make me happy', and 'I don't know'; and b) 'Does this program wants you to eat the ketchup brand X?' with two answer choices 'yes' (1) or 'no'.

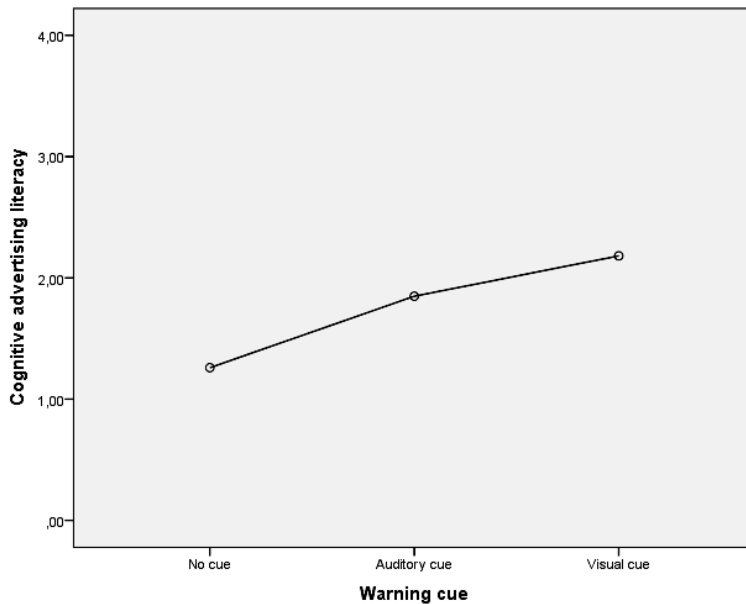
The intended advertising effects were operationalized by measuring children's *attitude toward the brand*, as advertising (and covert marketing tactics in particular) usually aims for a positive evaluation of and affect toward the brand (Campbell, Mohr, and Verlegh 2013). This measure was constructed by asking the participants three questions: 'How much do you like ketchup brand X?' (1 = 'very much' to 5 'not at all'), 'How many stars would you give ketchup brand X?' (1 star to 5 stars), and 'How good do you think ketchup brand X is?' (1 = 'not good at all' to 5 'very good'). After reverse-coding the first item, all three items were averaged to a single measure of brand attitude (Cronbach's Alpha = 0.91,  $M = 3.59$  (on 5),  $SD = 1.17$ ). The higher children's score on this measure, the more positive their attitude toward the advertised brand.

### 5.3.2 Results

To test H1, two ANOVA analyses with post hoc tests were conducted, including the experimental conditions as the independent variable and 1) cognitive advertising literacy and 2) attitude toward the brand as dependent variables.

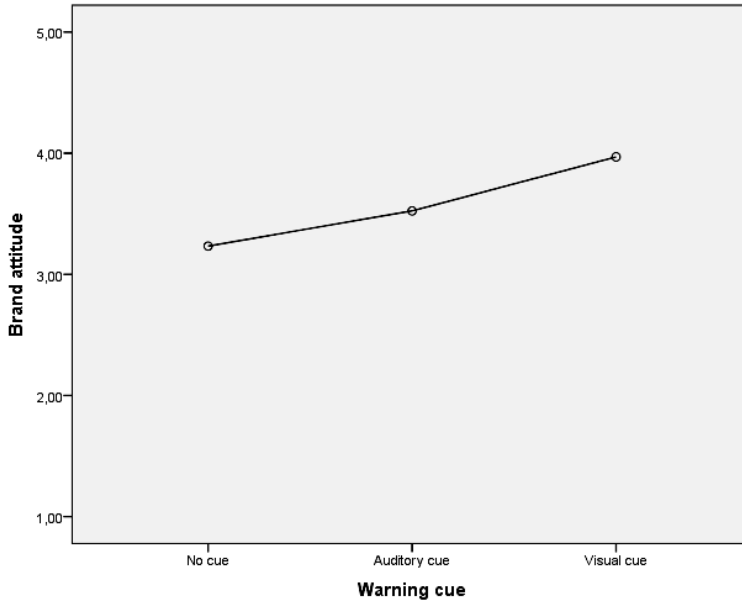
The first analysis revealed significant differences in cognitive advertising literacy between the experimental conditions ( $F(92) = 8.670, p < .001$ ) (see Figure 1), and the Scheffé test showed that, compared to no warning cue ( $M = 1.26$ ), a visual cue ( $M = 2.18, SE = 0.22, p < .001$ ) was most effective, as the difference between no cue and the auditory cue ( $M = 1.85, SE = 0.22, p < .031$ ) was smaller and less significant. These results support H1; though it has to be noted that no significant differences were found between the visual and the auditory cue themselves ( $p = .29$ ).

Figure 5-1 Effect of warning cue modality on cognitive advertising literacy



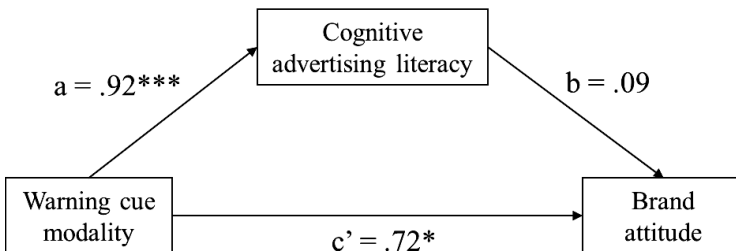
The second analysis showed small but significant differences between the conditions ( $F(97) = 3.368, p = .039$ ) (see Figure 2), and the Scheffé test showed that a visual warning cue ( $M = 3.97$ ) led to a slightly better brand attitude than no cue ( $M = 3.23, SE = 0.29, p = .042$ ). This finding partially contradicts H1, though no significant differences were found between no cue and the auditory cue ( $M = 3.52, SE = 0.28, p = .59$ ), and between the visual and auditory cue ( $p = .28$ ).

Figure 5-2 Effect of warning cue modality on brand attitude



Additionally, it was examined whether the effect of the visual warning cue (versus no cue) on brand attitude could be explained by cognitive advertising literacy (which is commonly expected in the research conducted among adults, as addressed earlier), by conducting a simple mediation analysis using Hayes' PROCESS macro for SPSS (Hayes 2013; model 4) (see Figure 3). The analysis was based on 5000 bias corrected bootstrap samples to estimate effects within a 95% confidence interval. The results confirmed that children's cognitive advertising literacy was higher when the brand placement was preceded by a (visual) warning cue than when no warning cue was shown ( $b = 0.92$ ,  $SE = 0.21$ ,  $p < .001$ ). However, this advertising literacy had no significant effect on brand attitude ( $b = 0.09$ ,  $SE = 0.19$ ,  $p = .65$ ) in this mediation model, and an indirect effect of warning cue exposure on brand attitude through advertising literacy was lacking ( $b = 0.08$ ,  $SE = 0.22$ ;  $[-0.35; 0.50]$ ).

Figure 5-3 Mediation analysis of warning cue modality on brand attitude via cognitive advertising literacy





### 5.3.3 Discussion

The first study showed that perceptual modality is indeed an important characteristic to consider in optimizing a warning cue's effectiveness among children, as it was found that the visual cue was more adequate than the auditory warning cue (in comparison with no cue) in addressing their cognitive advertising literacy for brand placement. This result is in line with the psychological literature finding visual stimuli superior in terms of ease of processing and memorization (see An and Stern 2011).

Now that it is confirmed that a visual warning cue is most adequate in this context, in study 2 it is investigated whether the visual cues' effectiveness can be enhanced further when manipulating its timing. It should be noted, though, that in study 1 children's cognitive advertising literacy was not sufficient to explain the effect of the warning cue on brand attitude. Therefore, study 2 will also take into account children's affective attitudes toward the advertising format.

## 5.4 Study 2

### 5.4.1 Additional literature review

#### 5.4.1.1 Warning cue timing

In a study with adult participants, Boerman et al. (2014) have already proven that disclosure timing strongly influences cue effectiveness, in that they have found that a warning cue shown prior to or concurrent with the sponsored content in a TV program more adequately facilitates people's recognition and critical processing of this content than a cue shown at the end of the program. Among children, however, significant differences in cue effectiveness may also be expected between a forewarning cue and a cue that is presented concurrently with the sponsored content. In particular, a forewarning cue is likely to be more adequate than a concurrently displayed cue among children, considering that their cognitive capabilities are more limited than adults. That is, if taking into account the highly entertaining and already visually stimulating media content in which brand placement occurs, children may have few cognitive resources left to direct their attention toward a concurrently played warning cue in the first place, let alone to reflect on the meaning of that cue, and subsequently, on the embedded commercial message. As children may not be expected to process both the disclosure and the editorial plus the commercial content at the same time, a cue that is displayed prior to the media containing brand placement should be more promising. More specifically, the extended time between the disclosure and the sponsored content should give children the opportunity to fully attribute their cognitive resources to the cue and its meaning (and, therefore, to process it more thoroughly; see Lang 2000), and subsequently, to heighten their vigilance for the upcoming persuasive message and to prepare themselves for critically processing the embedded advertisement (see Boerman, van Reijmersdal, and Neijens 2014). Therefore, the following hypothesis is formulated:

**H2:** A warning cue shown before the media containing brand placement will be more effective in terms of influencing children's cognitive advertising literacy and mitigating brand placement effects (here: brand attitude) than a warning cue shown concurrently.

#### 5.4.1.2 The moderating impact of scepticism towards the format

The fact that study 1 could not find an association between (cue-influenced) cognitive advertising literacy and a reduced susceptibility for advertising effects forms no exception in similar studies on contemporary advertising formats directed at children, as was noted earlier by Rozendaal et al. (2011). The authors explain this phenomenon by the fact that children's contemporary advertising strongly appeals to their emotions, which may distract them from processing the commercial message in a cognitive, elaborate way, and may ultimately prevent them to critically evaluate the advertisement, the advertised brands or products. They argue that in such conditions, in which children's cognitive abilities and motivation are put under severe pressure, the processing of advertising may occur more effortlessly when it is also done in an attitudinal manner rather than in a merely cognitive way. In particular, they claim that children are more likely to cope with an advertisement (or to resist persuasion by dismissing the advertisement, in this view) as they perceive advertising (in general) as more unrealistic, untruthful and dislikeable (Rozendaal, Oprea, and Buijzen 2014; Rozendaal et al. 2011).

Acknowledging the importance of attitudinal processing in the case of children, study 2 foresees a key role for their advertising-related attitudes. In particular their attitudes toward the specific advertising format are investigated, as Friestad and Wright (1994) considered it essential for consumers to evaluate the used format and its tactics in pursuing 'valid' attitudes about an advertisement. Therefore a moderated mediation model is tested in which children's sceptical attitudes toward brand placement determine the relation between (the cue-influenced) cognitive advertising literacy and brand attitudes, as several studies conducted among adults have shown that a disclosure can modify advertising effects through the activation of cognitive advertising literacy, depending on people's scepticism toward the covert marketing tactic to which they are exposed (e.g. Lee, Sung, and Choi 2011; Milne, Rohm, and Bahl 2009; Nelson, Wood, and Paek 2009; Wei, Fischer, and Main 2008; Yoo 2009). Yoo (2009), for instance, demonstrated that priming cognitive advertising literacy by disclosing the tactic of keyword search ads made people less likely to click on such ads, when they regarded the practice as inappropriate or unacceptable – this negative effect was attenuated when they perceived the advertising tactic as fair. Similarly, Wei et al. (2008) showed that activating cognitive advertising literacy by disclosing that a brand had paid to be mentioned in a radio show decreased people's brand evaluation when they perceived the tactic as unfair - this negative impact was also mitigated when perceiving this practice as fair, and the stronger activation of cognitive advertising literacy even led to more favourable brand evaluations in case of a highly familiar brand. As study 2 exposes the participants to a movie excerpt including brand placement for a product that is popular among children, following hypothesis is formulated:

**H3:** When children have a strong sceptical attitude toward the brand placement tactic, a warning cue will negatively affect their brand attitude due to a negative effect of cognitive advertising literacy on brand attitude. When children have a weak sceptical attitude toward the brand placement tactic, a warning cue will positively affect children's brand attitudes due to a positive effect of cognitive advertising literacy on brand attitude.

## 5.4.2 Method

### 5.4.2.1 Design and procedure

To test the second and third hypothesis, an experiment was conducted using a single factor (disclosure timing) between subjects-experimental design, entailing two levels of warning cue timing, namely prior to versus during the media content. 142 third-grade students between 8 and 10 years old ( $M_{\text{age}} = 9.04$ ,  $SD = 0.73$ ; 54% boys), recruited from four primary schools in a rural area in Flanders (Belgium), were randomly assigned to either the forewarning cue condition ( $N = 68$ ) or the simultaneous cue condition ( $N = 74$ ). There were no significant age differences between these conditions ( $p = .75$ ). Prior to the experiment, approval was obtained from the ethical review board of the researchers' university faculty, and parental informed consent was granted for all the children participating in this study.

Once arrived in class, each of the two groups of children were first informed that they were about to participate in a study on watching TV, and were then asked to watch a short movie excerpt (containing brand placement), accompanied by one of the two differently timed warning cues.

After watching the movie passage, the children were invited to fill out a short questionnaire that assessed their level of cognitive advertising literacy, their attitude toward the placed brand, and their level of scepticism toward the brand placement format. The surveying researcher looked at each individual question together with the children, in order to avoid deviant interpretations. To facilitate questionnaire comprehension, the survey response options were labelled both verbally and nonverbally with smileys, visual icons or pictures.

### 5.4.2.2 Stimulus material

The children from both groups were asked to watch a 5 minute excerpt from a popular children's movie, including a frequent and prominent brand placement for a well-known chocolate candy brand. As in study 1, the product was well integrated into the movie script, as one of the movie's main characters repeatedly engaged in lengthy dialogues with one of the brand's plush character dolls. These conversations were meant to be humorous, and to bring about positive affect in children.

In the first condition, a visual warning cue (that is nearly indistinguishable from the cue used in study 1) was shown before the movie excerpt. In the second condition, that same warning cue was shown during the whole movie fragment, at the bottom of the screen (see Appendix, Figure 5-7). Both cue messages were presented in Dutch, being the children's primary language.

### 5.4.2.3 Measures

The items for measuring *cognitive advertising literacy* ( $M = 2.01$ ,  $SD = 1.04$ ) and *brand attitude* (Cronbach's Alpha = 0.89,  $M = 4.21$  (on 5),  $SD = 0.82$ ) were almost identical to those in study 1, except that 'ketchup brand X' was replaced by 'candy brand X'.

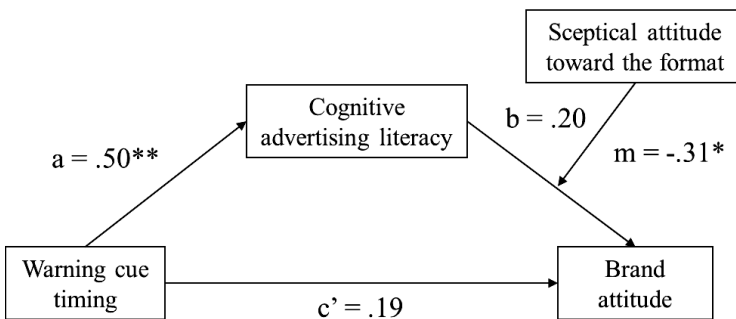
*Sceptical attitude toward brand placement* was measured by a single item, as it seemed advisable to not to exert more pressure on the young children's limited attention capacities than was done in the first study. Furthermore, it is argued that even "free-standing, tailor-made single-item measures" have an equally predictive validity as multiple-item measures of basic constructs in used in

advertising research (Bergkvist and Rossiter 2009). In particular, the respondents were asked ‘How much do you like that brands like candy brand X appear in the movie?’ (1 = ‘not at all’ to 5 = ‘very much’; which was then reverse-coded so that a higher score on this measure represents a more sceptical attitude toward brand placement) ( $M = 1.96$ ,  $SD = 0.97$ ). Notice that the participants were not literally asked about their perceptions of the format’s ‘appropriateness’ (which is how it was assessed in the adult research as reviewed above). Instead, this item probes for ‘liking’, as this concept is presumably less abstract and thus more comprehensible for young children. Furthermore, and unlike previous studies on children’s attitudinal processing of advertising (e.g. Rozendaal et al. 2014), the present study does not measure children’s attitudes toward advertising in general, but their attitudes toward the specific advertising format they are exposed to. Thereby this format is not explicitly labelled as ‘brand placement’ (as young children may not be familiar with this concept), but instead described as the appearance of brands in movies.

### 5.4.3 Results

The proposed model in which the forewarning cue (versus the concurrently displayed cue) influences brand attitude through cognitive advertising literacy, depending on children’s sceptical attitude toward brand placement, was tested by conducting a moderated mediation analysis (PROCESS model 14; Hayes 2013) (see Figure 4).

Figure 5-4 Moderated mediation analysis of warning cue timing on brand attitude via cognitive advertising literacy by sceptical attitude toward the advertising format



The results for path A in the model show that children’s cognitive advertising literacy was higher when the movie excerpt was preceded by a warning cue than when the cue was shown during the movie excerpt ( $b = 0.50$ ,  $SE = 0.17$ ,  $p = 0.004$ ), supporting H2.

As concerns the B path, the model turns out to be highly significant, and is able to explain 35% of the variability in the brand attitude score ( $R^2 = 0.35$ ,  $p < 0.001$ ). The index of moderated mediation shows that the indirect effect of the (fore)warning cue on brand attitude through cognitive advertising literacy was moderated by children’s sceptical attitude toward brand placement ( $b = -0.04$ ,  $SE = 0.03$ ; BCBI [-0.12; -0.01]).

In particular, this analysis provides results for testing the conditional indirect effects of the warning cue on brand attitude (via cognitive advertising literacy) at three values of the moderator, that is, sceptical attitude toward brand placement. The cue-influenced cognitive advertising literacy yielded a significant effect on brand attitude ( $b = 0.06$ ,  $SE = 0.04$ ; BCBI [0.01; 0.16]), but only at the lowest value of the moderator ( $M = 1.01$ ). This means that the cognitive advertising literacy as addressed by the forewarning cue (vs. the simultaneous cue) resulted in a more positive brand attitude, but only among children who were least sceptical toward brand placement. Cognitive advertising literacy resorted no significant effects on brand attitude among children who were moderately ( $M = 1.97$ ) sceptical ( $b = 0.03$ ,  $SE = 0.03$ ; BCBI [-0.02; 0.09]) or highly ( $M = 2.94$ ) sceptical ( $b = -0.01$ ,  $SE = 0.04$ ; BCBI [-0.11; 0.05]) toward brand placement. As such, H3 is only partially supported.

#### 5.4.4 Discussion

The second study showed that it is imperative to not only consider the perceptual modality of a disclosure but also its timing, as it was found that the forewarning cue was more effective than the concurrently displayed cue in triggering children's cognitive advertising literacy for brand placement. This indicates that the forewarning cue successfully functions as a prime that gives children sufficient time and opportunity to apply the cognitive advertising literacy that is needed to process the embedded commercial message that is about to follow.

Furthermore, the results support the findings in studies conducted among adults that consistently show that a warning cues' impact on advertising effects can be explained by consumers' cognitive advertising literacy, *if* their sceptical attitudes toward the advertising format are taken into account. In particular, it was found that cognitive advertising literacy increased brand attitudes, but only among children with a low sceptical attitude toward the brand placement format. This suggests that the children who recognized and understood the integrated commercial message had a better attitude toward the placed brand because they critically evaluated the used tactic in a positive manner.

### 5.5 General discussion

This study aimed to examine how different types of brand placement warning cues may trigger young children's cognitive advertising literacy and influence their attitudes toward the placed brand. The first experiment demonstrated that a visual warning cue was more effective than an auditory warning cue (in comparison with no cue) in addressing cognitive advertising literacy, but also that this advertising literacy alone was insufficient to explain the cue-induced changes on children's brand attitudes. In the second experiment it was shown that a visual warning cue presented prior to the sponsored media content was more adequate than a concurrently displayed cue in triggering cognitive advertising literacy. Additionally, it was found that this cognitive advertising literacy positively influenced brand attitudes, though only among the children that were least sceptical toward the brand placement format. Among the more sceptical children, this relationship disappeared.

### 5.5.1 Implications

The current article contributes to the academic, political and public debate on how to enable young children to cope with the contemporary, possibly deceptive embedded advertising formats directed at them, and to protect themselves from hidden persuasion attempts that rely on subconscious, automatic processing of the commercial message.

First, both studies in current article underscore the importance of the characteristics of warning cues in effectively disclosing brand placement. The finding that visual (versus auditory) warning cues presented prior to (versus concurrently with) the sponsored content are most effective in triggering children's cognitive advertising literacy forms a direct recommendation for academics and authorities that aim to design a cue that adequately enables young consumers to cope with brand placement – which is particularly relevant since the EU is still deliberating on warning cue presentation, and the US on giving shape to regulations regarding brand placement (Boerman, van Reijmersdal, and Neijens 2014). As these results do not correspond with comparable studies among adults and/or concerning other advertising formats, this study argues for academics to consider children's limited cognitive abilities to simultaneously process a warning cue and the branded media.

Second, as the proposed moderated mediation model in study 2 explained a myriad of the variation in children's brand attitude, this research recommends academics interested in the relation between (cue-influenced) cognitive advertising literacy and advertising effects to acknowledge the indispensable moderating role of sceptical or critical attitudes toward the advertisement or its format; otherwise they may wrongfully perceive warning cues as ineffective when not directly decreasing persuasion susceptibility. Relatedly, and important for public policy and legislation (and indirectly for advertisers), this finding suggest that one should focus on disclosures' potential to stimulate critical processing of advertising (of which the result could also be in favour of the advertised brand), rather than solely on the obstruction of advertising's intended effects – which would be useless, as advertisers will always find new ways to persuade. This critical processing can help both adults and children to actively use advertising to make conscious decisions about products and services, and, as stated by Friestad and Wright (1994), to '*adaptively respond to these persuasion attempts so as to achieve their own goals*' (Friestad and Wright 1994, 1).

### 5.5.2 Limitations and further research

Some caution is recommended to generalize the studies' results, as they may have been subject to a number of limitations.

First, the superiority of the visual over the auditory cue can be questioned, as there were no significant differences between these two cues themselves. However, it was found that the difference in effectiveness between the visual cue and no cue was greater and more significant than the difference in effectiveness between the auditory cue and no cue. Nevertheless, these results might have been replicated and confirmed if the aural condition had also been adopted in the second study (i.e. as a 2x2 factorial experiment). Instead, it was decided to allocate the statistical power (gained by retaining the number of conditions for a larger number of cases) to the more demanding (moderated) mediation analyses.

Second, there were some differences between the two studies' stimulus materials in terms of length, footage content and product type, which may have had confounding effects on the studies' outcomes. However, it may be argued that the two excerpts were highly similar in terms of integrating (familiar) products in entertaining and immersive (e.g., humorous and dynamic) media content. These are the most relevant features for warning cues to address, as disclosures are generally implemented to help children with recognizing embedded commercial content in a cognitively and motivationally depleting context.

Third, the proposed explanation for the moderating role of scepticism in the present research (i.e., that the advertising literate children's favouring of the brand was induced by a positive critical evaluation of the used tactic) should be interpreted with caution, as it is not known what is the nature of the knowledge and beliefs on which the children have based their judgment of the brand placement tactic. Furthermore, this interpretation may overestimate the young participants' level of cognitive processing, and especially with respect to critical, elaborate (and perhaps even moral) reasoning – clearly, more research is needed on children's age development in this area. Nonetheless, this finding demonstrates that young children's cognitive advertising literacy does not straightforwardly translate into diminished advertising effects, and suggests that future research should take into account children's advertising-related attitudes to have a better understanding of this relation's underlying process, especially in the context of the non-traditional, integrated advertising that is directed at them.

In that context, the somewhat unexpected finding that cognitive advertising literacy did not lead to a lower brand attitude among the more sceptical children deserves further attention. In all probability, this is the statistical consequence of a too small number of cases with a negative attitude toward the brand that the children were presented with in the second study – a brand that is indeed well known, and of which the products are very popular among children. As such, a possible negative evaluation of the placed brand through cue-influenced cognitive advertising literacy may have been obscured by a lack of variation in children's preference or desire for the advertised product. This explanation is supported by the previously mentioned study of Wei et al. (2008), in which was found that cognitive advertising literacy resulted in more positive brand evaluations when the brand was highly familiar (if at least it may be assumed that familiar brands are also the most popular brands with the most desired products). Therefore, it is recommended that future research on the relation between advertising literacy and effects also incorporates brand familiarity or product desirability (and, by preference, manipulates experimental conditions based on the exposure to brands that vary in terms of these characteristics). Furthermore, and in line with the considerations in previous paragraph, it may be assumed that children are not fully informed and have not yet formed well-substantiated beliefs about the brand placement tactic. This implies that the impact of their sceptical attitudes on brand attitude may have been less detrimental than if they had a more comprehensive understanding and set of beliefs regarding brand placement. Hence, it could be an interesting addition for further research to explore children's reasoning strategies underlying their judgments of contemporary advertising tactics. Moreover, it could be investigated whether children evaluate these tactics differently when they are encouraged to reflect on them.

Finally, it should be emphasized once again that warning cues may come in an infinite number of shapes. The present study focused on two essential warning cue characteristics, that is, modality and timing, but other studies show that brand placement disclosure effectiveness also varies along features such as disclosure duration (Boerman, van Reijmersdal, and Neijens 2012) and cue message (van Reijmersdal 2015) – at least in the case of adults. On top of that, An & Kang (2013) have mentioned a heap of other cue features that may influence cue effectiveness, such as its colour, size, readability, and placement. Furthermore, it needs to be acknowledged that the effectiveness of these various cues may also differ depending on the level of integration characterizing a specific type of brand placement. In the current study, for instance, the products and their brand were highly integrated in the editorial content. However, cues could have a different effect for the various enactments of brand placement that differ in prominence or subtleness, such as TV sponsoring or advertiser-funded programmes. In other words, there are many research opportunities left untouched to investigate the effectiveness of various types of warning cues in triggering children's advertising literacy for the wide variety of contemporary advertising formats.



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## 5.7 Appendix

Figure 5-5 Brand placement in TV program



Figure 5-6 Visual warning cue



Figure 5-7 Brand placement in movie with concurrently shown warning cue







## **6 ACTIVATING CHILDREN'S ADVERTISING LITERACY WITH IMPLICIT PRIMING STRATEGIES**

### **Abstract**

Despite its increasing reach among children, little is known about how they process covert forms of online advertising, let alone about how they can be stimulated to do so in a conscious and critical manner. This study investigates whether 10- to 12-year-old children (n = 240) cope more effectively with influencer marketing through brand placement in a YouTube vlog (concerning attitude toward the ad and brand, and eWOM) when their advertising literacy is addressed implicitly through simple priming than explicitly via a forewarning cue (versus no strategy), in the presence versus absence of advertising literacy education. Both strategies decrease vlogger credibility, which lowers ad effectiveness, but also increase perception of sponsorship transparency, which heightens ad effectiveness. Only priming combined with education is able to actually trigger advertising literacy, which in its turn affects eWOM, though in a manner depending on children's perception of the appropriateness of the current advertising practice.

**Keywords:** advertising literacy, children, forewarning, priming, covert advertising, brand placement, YouTube, vlog, influencer marketing

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### **6.1 Introduction**

A recent Ofcom report reveals a number of remarkable facts and trends about children's media use. Among others it shows that – for the first time – young children (aged 8-11) now spend as much time on the internet (mostly on a mobile phone) as they watch television. The most popular online activity by far is watching videos on social media, and more specifically on the content sharing platform *YouTube*, with 73% of these children using the website or app. Here they are most likely to watch music and prank videos and, even more, videos uploaded by video bloggers (Ofcom, 2016). These 'vloggers' or 'YouTubers' (Lange, 2007) upload their videos on dedicated YouTube channels, and aim to have an increasing number of subscribers following their regularly published vlogs (Zerdick, Picot, Schrape, Burgelman, & Silverstone, 2005). In these videos, vloggers mostly talk about their hobbies and interests (occupying various niches such as gaming, or fashion and beauty), but at the same time also establish an intimate bond of trust and relatedness with their likeminded followers by offering access to their daily, personal lives, experiences and thoughts (Berryman & Kavka, 2017).

Not surprisingly, advertisers have realized the potential of YouTube influencers and their credibility, and increasingly consider them as an important part of their marketing strategies (Dunlop, Freeman, & Jones, 2016). More specifically, vloggers are given incentives to generate advertising by

'unboxing' and taking on certain 'challenges' with products, and, more implicit, by subtly placing brands or products within their videos' content – tactics that clearly pay off, as a recent survey showed that half of children (aged 8-11) admits to desire certain products because they have seen them in a vlog (Kantar Public, 2018). The current study focuses on the placement of unhealthy snack food, as YouTube vlogs were found to be the most important source for children to be confronted with advertising for high energy density food products (Youngworks, 2016).

While perhaps not a big secret, the Ofcom (2016) report also unveils that even older children (aged 12-15) are not always (43%) aware that YouTubers might be compensated to favorably depict branded products. In this light, societal concerns have been voiced about this covert and therefore potentially misleading form of advertising (e.g., Green, 2015). In particular, it is argued that the engaging media content in which the advertising is embedded quickly drains children's limited cognitive resources and motivation needed to apply (and develop) their advertising literacy, which would otherwise allow them to recognize, understand and critically process the sponsored content (Rozendaal, Lapierre, van Reijmersdal, & Buijzen, 2011). Therefore, such ad formats are believed to have the potential of preconscious – and possibly unwanted – persuasion (Nairn & Fine, 2008).

Although these concerns are also applicable to 'traditional' brand placement in film and on TV (see, e.g., Nebenzahl & Jaffe, 1998), they may be even more pertinent in the case of sponsored vloggers reaching children, as vlogs integrate branded content in a media context that has never been more successful at *engaging* the audience (see Chan-Olmsted, Xiao, & Wolter, 2017; Lawrence, Fournier, & Brunel, 2013) and at conveying authenticity and *credibility* (Hansen, Lee, & Lee, 2014); and, finally, because of the many difficulties to regulate this global phenomenon (Youngworks, 2016), often leading YouTubers to refrain from being *transparent* about sponsorship (Ahuja, Michels, Walker, & Weissbuch, 2007).

Considering the above, and the fact that children in late childhood are depicted as "cued processors" (who are able to adequately cope with marketing messages, yet also need certain 'nudges' to set this process in motion; John, 1999), it is unlikely that they will spontaneously and independently recognize covert online advertising as such, and process it accordingly. In other words, children may need to be empowered through certain strategies, such as presenting them with forewarning cues that disclose the presence of advertising, and encourage them to consciously and elaborately process the commercial content. However, it has been argued before that such 'traditional', explicit warning strategies also claim a considerable amount of cognitive resources, and may therefore be decreasingly adequate as the media in which advertising is embedded is more engaging (Hudders et al., 2017).

To address this issue, the present study departs from recent work by Fransen and Fennis (2014) in which was experimentally tested whether the influence of a traditional ad could be mitigated more efficiently with an implicit priming strategy than with an explicit forewarning cue (versus no strategy). In the cue condition, adult participants were told that they were about to be exposed to an advertisement which is intended to influence them. In the priming condition, they were asked to describe a situation in which someone tried to influence them (thus without explicit reference to the upcoming ad). Ultimately, although both strategies proved to be equally effective, the implicit prime was found to address less cognitive resources than the explicit cue in decreasing the persuasive effect of the ad.



Considering the latter, it seems fruitful to investigate whether a prime is more conducive than a warning cue to help children cope with engaging, covert online advertising. However, for this translation at least two issues need to be considered. First, these strategies presuppose certain prior knowledge of persuasive tactics – which is more obvious for adults in case of traditional advertising, than for children in the context of the new and embedded ad formats. Second, it is argued that coping strategies should not merely focus on ad resistance, but on children’s activation of advertising literacy in the first place (see, e.g., Hudders et al., 2017). Thereby ad effects are not necessarily altered in ways unfavorable for the promoted brand, but rather adjusted according to children’s critical processing of the ad.

Departing from these considerations, the present study tests whether a prime versus a warning cue (vs. no strategy) helps 5<sup>th</sup>- and 6<sup>th</sup>-grade primary school children (incl. ages 10-12) to cope with brand placement in YouTube vlogs by activating their advertising literacy. Moreover, it is investigated whether the effectiveness of both strategies in triggering children’s advertising literacy can be increased by first expanding their knowledge and beliefs about covert ad formats through education; and, consequently, whether the influence of the activated advertising literacy on effects desired by the advertiser depends on children’s evaluation of the ad practice – in other words, whether critical processing of the ad occurs. In addition to cognitive advertising literacy, it is also explored what is the mediating role of children’s trust in the vlogger (i.e., source credibility) and perception of sponsorship transparency, as these factors are also known to be affected by sponsorship disclosure.

## 6.2 Literature review

### 6.2.1 Advertising-literacy activating strategies’ effects on advertising outcomes, and underlying processes

At the moment of writing, little is known about how children are affected by covert online advertising, such as sponsored vlogs. However, it is generally assumed that contemporary forms of branded entertainment integrate advertising in engaging content in order to create a state of sustained attention through emotional immersion. This state encourages automatic processing of the commercial content, which facilitates the implicit influencing of consumer attitudes, and ultimately stimulates their motivation to act accordingly (Chan-Olmsted et al., 2017). Therefore, the current study investigates how brand placement in a YouTube vlog affects children’s attitudes toward the ad and the promoted brand, and their behavioral intention to engage with the ad and brand through eWOM; and whether these outcomes can be altered using the proposed advertising-literacy (AL-) activating strategies. With regard to possible mediators underlying this relationship, insights can be gained from the growing number of studies about the effects of influencer marketing or covertly-sponsored user-generated content (UGC) in social media on adolescents and adults, as discussed in following paragraphs. In particular, three parallel paths are proposed to explain potential effects, namely via perceived source credibility and sponsorship transparency, and advertising literacy.

The most studied mediator is **source credibility**, or the extent to which the communicator (vlogger) is perceived as truthful or believable. It is commonly argued that consumer-generated ads are

more persuasive than company ads because people can more easily identify, relate and engage with the ad creator, who is perceived as authentic, independent and benevolent (thus having no ulterior motives), and therefore as more trustworthy and credible (Lawrence et al., 2013). This perception should encourage acceptance or approval of the communicator's message without evidence or investigation (Yoon, 2002). Indeed, it is usually found that consumers show better attitudes and corresponding behavioral intentions toward sponsored UGC as they trust the communicator more (e.g., believe that the vlogger shows branded products he or she would also use in daily life) (e.g., Hansen et al., 2014). However, when they become aware of this sponsorship (e.g., through disclosure), consumers are likely to become suspicious and skeptical about the communicator's ulterior motives, to lose their trust, and, ultimately, to resist persuasion (e.g., Göbel, Meyer, Ramaseshan, & Bartsch, 2017). Accordingly, it can be presumed that adding a disclosure (by warning cue especially, as it is more explicit than priming) will also decrease the vlogger's credibility among children, consequently lowering the effectiveness of the ad.

Next, considering scholars' increasing interest in (disclosure of) covert advertising, it is somewhat remarkable that research on sponsored UGC has not yet adopted the concept of **sponsorship transparency**, or "the extent to which a sponsored communication message makes noticeable to the consumer its paid nature and the identity of the sponsor" (Wojdyski, Evans, & Hoy, 2018, p. 7). Although discovering that seemingly neutral communication is in fact advertising may harm consumers' trust, it is not unconceivable that their perception of honesty and openness regarding sponsorship may take away suspicion, and neutralize negative ad responses that would otherwise result from feelings of deception. On the contrary, when sponsorship is perceived to be clearly disclosed, people's approval may actually lead to more positive consumer attitudes and greater motivation to behave accordingly (Evans & Wojdyski, 2017). Correspondingly, as children may also appreciate being explicitly noticed of any commercial intent (thus via forewarning cue rather than priming), affective reactions resulting from disclosure could also be expressed in ways that are more favorable to the ad and the brand it promotes, through heightened perception of sponsorship transparency.

Finally, it is perhaps most striking that also persuasion knowledge or cognitive **advertising literacy** has barely been investigated as a mediator between (disclosed) sponsored UGC and advertising response. It is argued, nonetheless, that covert ad formats are practically designed to circumvent consumers' advertising literacy and ad skepticism (Sprott, 2008). Furthermore, it is actually the main goal of disclosures to activate advertising literacy, by making people aware of commercial intent in the first place, and stimulate further critical reflection on the ad (Hudders et al., 2017), and to adapt ad outcomes accordingly. One study indeed shows that triggering persuasion knowledge for covertly sponsored UGC on YouTube lowers adults' advertising and brand attitudes, and their intention to share the video (Göbel et al., 2017). Other studies also demonstrate that explicitly disclosing sponsored content negatively affects adolescents' brand attitudes and behavioral intentions through ad recognition, in the context of blogs (van Reijmersdal et al., 2016) and Instagram-based influencer advertising (Evans, Phua, Lim, & Jun, 2017).

However, as argued before, when it comes to coping with engaging, covert ad formats, children may benefit more from *implicit* AL-activating strategies, as this should be less taxing for their already

limited cognitive resources (cf. Fransen & Fennis, 2014). The unoccupied mental space could then be used for cognitive elaboration and critical reflection, rather than straightforward, affect-based refusal to comply with the ad's persuasive intentions. In other words, it can be expected that a prime (rather than an explicit warning cue) will influence ad effectiveness through activating children's advertising literacy.

Nevertheless, and as mentioned earlier, how these mediators are affected by the studied strategies may differ considerably according to whether children are educated about covert ad formats – as is discussed in the following section.

## 6.2.2 Advertising literacy education

From a growing awareness that children's grasp of contemporary, embedded advertising is precariously underdeveloped, many studies have since recently been testing whether their coping with such ad formats may be enhanced through education – having shown, for instance, that a training session alters children's responses to product placement (De Jans, Hudders, & Cauberghe, 2017) and advergames (Hudders, Cauberghe, & Panic, 2016) by increasing their advertising literacy. As children's awareness of influencer marketing in vlogs is perhaps even lower (see Introduction), it seems desirable to first raise their understanding of covert ad formats and tactics, and the ways in which these can be evaluated. In this manner, AL-activating strategies might be more effective, not only in terms of recognition and understanding, but also in bringing children to cope with such ads based on well-substantiated and critical thinking (rather than through one-sided negative, affective reactions only). To test this, the present study investigates whether forewarning (cue) and priming have different effects on outcomes desired by the advertiser (through the mediators discussed above) when preceded by a concise advertising-literacy (AL) educational session.

In case of **no session**, these strategies will probably function as basic disclosures, that is, without fully activating advertising literacy, and rather automatically triggering pre-existing attitudes based on experience with traditional formats (which are more easily identifiable as advertising). In particular, as these formats are usually associated with feelings of irritation (e.g., commercials interrupting TV programs) (see Rozendaal et al., 2011), AL-activating strategies without education will likely cause children to react in a primarily negative, *affective* manner (Rozendaal, Buijs, & van Reijmersdal, 2016), thereby more directly influencing persuasion resistance (cf. Fransen & Fennis, 2014). This may especially be the case for the *cue* (rather than the *prime*), as it explicitly displays the term 'advertising' right before the original blog video is shown (see Methods).

More specifically, when suggesting the presence of 'advertising', the negative connotation this term carries for children may lead them to distrust the vlogger, as he or she may then be perceived as a traditional, intrusive marketer rather than as a friend or peer (via change-of-meaning, see Friestad & Wright, 1994). As this lowered perception of *vlogger credibility* may lead to reactance and simple resistance strategies such as avoidance (Fransen, Verlegh, Kirmani, & Smit, 2015), the effectiveness of the ad is likely to decrease. However, as children (cf. adults; see previous section) may also appreciate being explicitly noticed of commercial intent, affective reactions toward disclosure (which should thus be more prevalent in the absence of AL education) could also be expressed in ways that are more favorable to the ad and the brand it promotes by increasing their perception of *sponsorship*

*transparency*, consequently increasing ad effectiveness. Following hypotheses are formulated accordingly:

**H1:** In the *absence* (vs. presence) of AL education, disclosing a vlog's commercial nature with a *cue* (rather than through priming, vs. no strategy) will affect children's attitudes toward the ad (Aad) and the brand (Ab) and their behavioral intention to engage with the ad and brand (eWOM):

H1a: in a *negative* manner by lowering their perception of vlogger credibility

H1b: in a *positive* manner by heightening their perception of sponsorship transparency

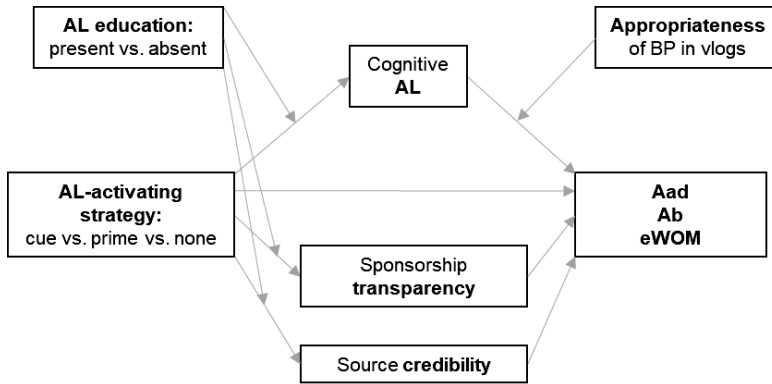
In the presence of **AL education**, however, chances increase that these strategies will rather trigger advertising literacy (than the affective mechanisms suggested above). This may lead children to process the advertising stimulus in a more *cognitive* manner fueled by the newly acquired knowledge and skills, resulting in ad reactions based on better informed and nuanced thinking. This processing path, however, is more likely to occur when children are *primed* (rather than shown the cue), as this strategy is supposed to leave more cognitive space for elaborate and critical processing of the sponsored content (cf. Fransen & Fennis, 2014) at the moment of exposure to the vlog.

With regard to critical processing, it was recently found that when contemporary ad formats are presented with an explanation (cf. AL education), children show the ability not only to understand the tactics used, but also to morally evaluate these (De Pauw, De Wolf, Hudders, & Cauberghe, 2017). Furthermore, the valence of such an evaluation has proven to determine whether activated advertising literacy will have a negative or positive effect on children's brand evaluations (in the context of TV and film brand placement; De Pauw, Hudders, & Cauberghe, 2017) – reflecting similar findings in research considering adults' perceptions of the appropriateness of covert ad tactics (e.g., Wei, Fischer, & Main, 2008). In other words, it can be assumed that the effect of children's prime-activated advertising literacy on outcomes desired by the advertiser will be contingent on their moral evaluation of the practice of sponsoring vlogs. In particular, following results can be expected:

**H2:** In the *presence* (vs. absence) of AL education, *priming* (rather than a cue, vs. no strategy) will affect children's Aad, Ab and eWOM by activating their cognitive advertising literacy. Moreover, the effect of cognitive advertising literacy on these outcomes will depend on children's perception of the appropriateness of sponsoring YouTube vlogs.

Figure 1 displays the conceptual model underlying the hypotheses formulated above.

Figure 6-1 Conceptual model



## 6.3 Methods

### 6.3.1 Design and participants

An experiment was conducted using a 3 (AL-activation strategy: none vs. warning cue vs. prime) x 2 (AL education: absent vs. present) between-subjects design. Participation was obtained from 240 fifth- and sixth-grade primary school children ( $M_{age} = 10.59$ ,  $SD = .78$ ; 55% girls) recruited in four schools in an urban area of a West-European country. Classes were randomly assigned to one of the six conditions, but it was ensured to have one 5th- and one 6th-grade class per condition. Children at these ages are considered to be “cued processors” (see Introduction), making it a particularly interesting group to design advertising-related interventions for.

### 6.3.2 Procedure

First, the researchers ensured to get ethical approval from their university’s faculty board, and to obtain (written) informed consent from children’s parents or legal guardians. Participating schools were informed about study procedures – yet the teachers involved were asked not to tell their students about the research topic. Once in the classroom, students were given the option not to partake in the study. Table 1 presents the main elements of the further in-class procedure. Special efforts were made to make these parts appear to the students as unrelated.

Table 6-1 Study procedure (in class)

		AL education	
		absent	present
			1. AL education
		1. drawing	2. drawing
<b>AL</b>	none	2.0. watch vlog w/o strategy	3.0. watch vlog w/o strategy
<b>activating</b>	cue	2.1. watch vlog preceded by cue	3.1. watch vlog preceded by cue
<b>strategy</b>	prime	2.2. watch vlog preceded by prime	3.2. watch vlog preceded by prime
		3. questionnaire	4. questionnaire
		4. (AL education)	

In the **AL education** conditions, children first were informed (for up to ten minutes) about “brand placement” in various media formats (incl. YouTube influencer marketing) through four questions (addressing cognitive, affective and moral aspects of advertising literacy; see Hudders et al., 2017): 1) “Who makes this kind of advertising?”, 2) “How do they do that?”, 3) “Why do they do that?”, and 4) “What should I think about them doing that?”. In brief, children were told that brand placement:

1. is used by companies (and marketers), who pay more to the “movie maker” as their products are shown more frequently and longer, and play a more prominent role in the movie
2. usually involves a “movie character” using products (incl. examples from several media formats popular among children, i.e.: movies, TV programs and series, music videos, vlogs and advergames; see Cauberghe, De Pelsmacker, Hudders, Panic, & Destoop, 2012)
3. is used because: it forces them to watch the commercial content (if they don’t want to miss out on the entertainment); it can influence them in a preconscious manner; it is likely to make them feel good about a brand or product; it familiarizes them with a brand or product
4. should be judged personally (e.g., as “good” or “bad”), yet preferably by reflecting on following questions: a. “Is the ad well made?” (e.g., is it creative, or not?); b. “Which products are advertised?” (e.g., healthy vs. unhealthy food); c. “For whom is such advertising a good thing, and for whom possibly not?” (e.g., for companies vs. parents); and d. “Do they also tell you advertising is present, or do they try to hide this?” (incl. explanation of the European “PP”-logo and people’s awareness of its meaning, cf. Tessitore & Geuens, 2013).

To disconnect this session from subsequent exposure to a sponsored vlog, children were first instructed to make a drawing (of their favorite animal) as to “do something completely different”. In the conditions without AL education, children commenced the experiment with this drawing.

After five minutes of drawing, children were told to “take a break” by watching the vlog. In the **cue** condition, the video was preceded by a visual sponsorship disclosure (see Stimuli). In the **prime** condition, children were instead instructed to write a small essay during the next ten minutes (also addressing the various advertising literacy dimensions, cf. educational session). More specifically, they were given a sheet of paper and asked to “Think back to an ad you have recently seen. Describe this ad below, and what you were thinking when seeing it. Also tell how you felt when seeing that ad, and what you thought of it. For instance: did you like that ad or not, did you find it honest or not?”

After the video, children were told to “finish with a little more work” filling out a questionnaire, assessing (among others) how they processed the vlog. Wherever possible, the verbal answer options were graphically illustrated using icons, drawings or pictures, in order to bypass potential language or reading difficulties (cf. Mallinckrodt & Mizerski, 2007).

Finally, the participants were thanked, and given the opportunity to ask any (study- and advertising-related) question, and to give their opinion on the study. Before that, children in the non-education conditions were given the informational session after all (to stimulate their advertising literacy, and to give the schools something in return for their participation).

### 6.3.3 Stimuli

Children were exposed to a 5-minute sponsored blog video from a teenaged, female YouTuber (likely to mostly reach her own age group) who is increasingly popular (approx. 10.000 followers) in the West-European country in which the current study is conducted. To reflect a more genuine YouTube experience, extra video material was added before the original vlog: first showing a search for “youtube” in Google, and following the link to YouTube; searching for the vloggers’ channel within YouTube and arriving there; then looking for a certain vlog post and clicking on it (see Appendix, Figure 6-3).

In the **cue** conditions, children were first exposed to a visual forewarning cue before starting the original video. This cue was integrated in the YouTube window (with the video not yet in full screen), displaying the message “contains advertising” in yellow, capital letters in a black, rounded rectangle, against a white background (see Appendix, Figure 6-4). The cue itself was recently developed and tested with children aged 6-12, and proved to be better noticed and comprehended and more effective (than a traditional product-placement logo) in terms of recognizing digital and embedded advertising as such (De Jans et al., in press). Cue exposure lasted 6 seconds, as it was found that a (TV-ad) disclosure shown at this duration is most effective in activating (adults’) cognitive advertising literacy and skeptical feelings toward brand placement (Boerman, van Reijmersdal, & Neijens, 2012). The cue was deliberately shown *prior* to the original video, as this timing has proved to more adequately influence children’s advertising literacy and brand placement effects than a concurrently shown cue (De Pauw, Hudders, et al., 2017). To create more natural transitions between stimuli parts, the cue was gradually faded in and out.

Next, children were shown the original video (going full screen after six seconds), in which the vlogger first frames her post as part of an interactive mini-series called “Wordplay”. In this series, she explains, followers are allowed to suggest certain words (by commenting on earlier videos), with which the vlogger consequently plays “little games”. The first ‘word’ she accepts is actually a tongue twister, upon which she raises its difficulty by trying to quickly repeat the suggested sentence while eating a salty snack. More specifically, she catches a bag of these snacks and shows it prominently to the camera while mentioning the brand name and explaining the product’s category (as “some kind of crisps”) (see Appendix, Figure 6-5). Then she takes a mouthful of the snacks (and claims she actually enjoys this) and performs the tongue twister. She wraps up this part by once again showing the packaging and expressing how much she likes this product; finally throwing the bag out of view, saying “Bye, brand X”. After the branded part she deals with several other words, which do not involve any sponsoring. Towards the end of the video she plays with the word “confetti cannon” by shooting it. The video’s title is also “Confetti cannon goes wrong”, which may create the impression of the whole video being about this object (rather than the promoted snacks).

The branded content takes about 36 seconds, and is more or less centered toward the middle of the video, which clearly sets it apart from a classic commercial. As characteristic for brand placement, the viewer is first engaged through entertaining content (and here also via interaction), upon which the brand is placed, and followed by non-branded content. In other words, there appears to be sufficient ‘distraction’ from or integration of the brand, making it unlikely that young consumers will immediately and independently realize that they are dealing with advertising (only one of the 137 commenters, a befriended vlogger, let know to suspect product placement). Also, as chances are small that children

will perceive the brand as being prominently placed, it may positively influence attitudinal responses (e.g., toward the brand; see Cowley & Barron, 2008). In any way, the vlogger did not transparently communicate being sponsored (only mentioning not being good at bringing “this *special* YouTube stuff”, which seems like an unofficial term among vloggers to indicate sponsoring, but is not likely to be interpreted as such by the audience).

### 6.3.4 Variables and measures

The questionnaire was pretested in one class (from a school not included in the final sample) to ensure comprehension and rule out any ambiguity. As concerns the sequence of topics, most of the study outcomes and mediators (except for Aad and sponsorship transparency) were assessed before mentioning the presence of advertising toward the end of the survey.

#### 6.3.4.1 Dependent variables

*Attitude toward the ad (Aad)* was measured by asking children, “What do you think of the advertising in this video?”. Response options were presented as five-point semantic differentials: “not nice – nice”, “annoying – enjoyable”, and “boring – interesting” ( $\alpha = .82$ ;  $M = 2.93$ ,  $SD = 0.96$ ) (based on Rozendaal, Oprea, & Buijzen, 2016).

*Attitude toward the brand (Ab)* was measured by asking, “How much do you like brand x?” (1 = not at all; 5 = very much), “How many stars would you give brand x?” (1 = one star; 5 = five stars), and “How good is brand x, you think?” (1 = not good at all; 5 = very good) ( $\alpha = .84$ ;  $M = 3.53$ ,  $SD = 0.93$ ) (De Pauw, Hudders, et al., 2017).

*eWOM* (electronic word-of-mouth communication) is a measure specifically applied to YouTube, where users can spread a message by engaging with a video (and therefore the ad, and the brand it promotes) through clicking it, liking it, and sharing it – actions that are visible to other users, who may copy this behavior. Children were instructed to imagine they are on YouTube, and asked whether they themselves would: “...click this video?”, “...like this video?”, and “...share this video with your friends?” (1 = certainly not; 5 = certainly). Although this is rather an index (as it can be assumed that users will click and eventually like the video before sharing it) it proves to be reliable as a scale ( $\alpha = .82$ ;  $M = 2.83$ ,  $SD = 1.07$ ).

#### 6.3.4.2 Independent variable

*AL-activating strategy* is a nominal variable with three categories: no strategy (0; = RC), cue (1), and prime (2) (see Procedure).

#### 6.3.4.3 Mediating variables

Perceived *source credibility*, and more specifically its “trustworthiness” dimension (Tormala, Briñol, & Petty, 2007), was measured by asking children whether “I think vlogger x is...”: “unbelievable – credible” (5-point semantic differential;  $M = 3.46$ ,  $SD = 0.79$ ).



Perceived *sponsorship transparency* measures “consumers’ perception of sponsored elements in an advertising communication” (Wojdyski et al., 2018, p. 4) and was adapted to the current context by asking children whether they “...think that vlogger x”: “...has clearly said that there is advertising in her video?”, and “...has tried to hide that there is advertising in her video?” (reverse-coded) (1 = not at all; 5 = certainly) ( $M = 2.43$ ,  $SD = 0.97$ ).

*Cognitive advertising literacy (cogAL)* is an index consisting of several dichotomous items assessing children’s recognition and understanding of the vlog’s commercial intent (cf. De Pauw, Hudders, et al., 2017). Ad recognition was assessed by asking them whether they think that: “...they have *asked* vlogger x to show brand x in her video?”, “...they have *paid* vlogger x to show brand x in her video?”, and “...they show brand x in the video to *advertise* it?” (0 = no, 1 = yes). Commercial intent was measured by asking children whether they think brand x is shown to make them: “...buy brand x?”, and “...like brand x?” (0 = no, 1 = yes). The resulting index (ranging from 0 to 5) has a rather low mean score ( $M = 2.01$ ) yet shows high variability ( $SD = 1.65$ ).

#### 6.3.4.4 Moderating variables

*Advertising literacy education* was either absent (0) or present (1) (see Procedure).

Perceived *appropriateness of brand placement in vlogs (Appr)* (cf. De Pauw, De Wolf, et al., 2017) was assessed by asking children what they “...think about brands advertising by placing their products in YouTube videos (such as brand x has done with product x in this video?). Answer options were 5-point semantic differentials: “dishonest – honest”, “stupid – well found”, “wrong – good”, and “false – real” ( $\alpha = .85$ ;  $M = 3.11$ ,  $SD = 0.91$ ).

#### 6.3.4.5 Additional variables

Extra measures were adopted to frame the study and its main results, and to test for possible confounding factors. These were familiarity with and attitude toward the vlog(ger); measures of brand or product recall and familiarity (see below); and sociodemographics (gender and age).

### 6.3.5 Statistical analysis

Moderated (parallel) mediation analyses were conducted using the PROCESS v3.0 macro for SPSS (Hayes, 2017; customized model), based on 5000 bias corrected bootstrap samples to estimate effects within 90% confidence intervals. Only interactions with  $p < .2$  were probed, and the Johnson-Neyman technique was used to identify significant effects of values on the moderator as a continuum.

## 6.4 Results

As concerns the additional variables, it is found that although only 7% of the participants already knew the vlogger before seeing the video, most of them liked the video ( $M = 3.75$ ,  $SD = .96$ ) and the vlogger ( $M = 3.78$ ,  $SD = .99$ ). Further, 98% correctly identified the product category displayed in the video (by selecting ‘snacks’ and not ‘soda’, ‘pens’, ‘backpack’, ‘make-up’, or ‘none of these’); 79% claimed to have seen a brand in the video, and 54% was able to recall the brand name without help; and 60%

already knew the brand prior to watching the video. For none of these variables (incl. gender) differences were found between conditions ( $p > .05$ ). This is different with regard to age, for which significant group variation was detected [ $F(5, 233) = 2.84, p = .016$ ]. Though mean values per condition show a small range (i.e., from 10.26 to 10.85 years old), following analyses have adopted age as covariate – however, as this hardly changed the results, purged models without covariates are presented.

The ensuing paragraphs discuss the results per mediator. Table 2 shows the a-path, as shared by the three models with different outcomes, examining the effects of AL-activating strategies on source credibility, sponsorship transparency, and cogAL – each moderated by AL education (note: mediators were uncorrelated). Table 3 displays the b- (and c'-) path, demonstrating how these mediators influence Aad, Ab and eWOM – with the effect of cogAL being moderated by Appr. Figure 2 gives a visual overview of the significant effects shown in Table 2 and Table 3. Finally, Table 4 shows the indirect effects for the complete models.

Table 6-2 A-path: effects of AL-activating strategies on mediating variables

	Source credibility						Sponsorship transparency						CogAL					
	b	SE	t	p	LLCI	ULCI	b	SE	t	p	LLCI	ULCI	b	SE	t	p	LLCI	ULCI
Constant	3,74	0,12	32,57	0,000	3,55	3,93	1,83	0,13	13,71	0,000	1,61	2,05	1,83	0,24	7,70	0,000	1,44	2,22
Cue (vs. none)	<b>-0,44</b>	0,17	-2,60	0,010	-0,71	-0,16	<b>0,56</b>	0,19	2,90	0,004	0,24	0,88	<b>-0,16</b>	0,35	-0,47	0,638	-0,73	0,41
Prime (vs. none)	<b>-0,36</b>	0,18	-2,04	0,042	-0,66	-0,07	<b>0,46</b>	0,21	2,25	0,025	0,12	0,80	<b>0,05</b>	0,37	0,14	0,886	-0,55	0,66
AL education	-0,12	0,18	-0,66	0,508	-0,42	0,18	<b>0,92</b>	0,21	4,39	0,000	0,57	1,27	<b>0,08</b>	0,37	0,20	0,838	-0,54	0,69
Cue x AL education	0,10	0,25	0,41	0,681	-0,31	0,52	-0,47	0,29	-1,62	0,106	-0,95	0,01	<b>0,38</b>	<b>0,52</b>	<b>0,73</b>	<b>0,465</b>	-0,48	1,23
AL educ. absent							0,56	0,19	2,90	0,004	0,24	0,88	-0,16	0,35	-0,47	0,638	-0,73	0,41
AL educ. present							0,09	0,22	0,42	0,672	-0,27	0,45	0,22	0,38	0,56	0,575	-0,42	0,85
Prime x AL education	0,12	0,27	0,47	0,641	-0,32	0,56	<b>-0,65</b>	<b>0,31</b>	<b>-2,10</b>	<b>0,037</b>	<b>-1,16</b>	<b>-0,14</b>	<b>1,11</b>	<b>0,55</b>	<b>2,01</b>	<b>0,046</b>	<b>0,20</b>	<b>2,02</b>
AL educ. absent							0,46	0,21	2,25	0,025	0,12	0,80	0,05	0,37	0,14	0,886	-0,55	0,66
AL educ. present							-0,19	0,23	-0,80	0,422	-0,57	0,20	<b>1,16</b>	<b>0,41</b>	<b>2,82</b>	<b>0,005</b>	<b>0,48</b>	<b>1,84</b>
R <sup>2</sup>	0,05						0,13						0,07					

Table 6-3 B- (and C'-)paths: effects of mediating variables on Aad, Ab, and eWOM

	Aad						Ab						eWOM					
	b	SE	t	p	LLCI	ULCI	b	SE	t	p	LLCI	ULCI	b	SE	t	p	LLCI	ULCI
Constant	0,22	0,38	0,58	0,560	-0,41	0,85	2,26	0,44	5,16	0,000	1,54	2,98	1,15	0,48	2,41	0,017	0,36	1,94
Cue (vs. none)	<b>0,20</b>	0,12	1,65	0,100	0,00	0,40	<b>-0,30</b>	0,14	-2,16	0,032	-0,53	-0,07	-0,10	0,15	-0,66	0,511	-0,36	0,15
Prime (vs. none)	<b>0,30</b>	0,13	2,33	0,021	0,09	0,52	<b>-0,33</b>	0,15	-2,19	0,030	-0,57	-0,08	<b>-0,29</b>	0,16	-1,80	0,074	-0,56	-0,02
Source credibility	<b>0,16</b>	0,07	2,34	0,020	0,05	0,27	<b>0,23</b>	0,08	3,05	0,003	0,11	0,36	<b>0,39</b>	0,08	4,59	0,000	0,25	0,53
Sponsorship transp.	<b>0,12</b>	0,05	2,25	0,025	0,03	0,21	<b>-0,13</b>	0,06	-2,16	0,032	-0,23	-0,03	0,01	0,07	0,20	0,838	-0,10	0,12
CogAL	-0,01	0,11	-0,12	0,904	-0,19	0,16	0,03	0,12	0,22	0,828	-0,17	0,23	<b>-0,29</b>	0,13	-2,20	0,029	-0,51	-0,07
Appr	<b>0,54</b>	0,09	5,82	0,000	0,39	0,69	<b>0,32</b>	0,11	3,04	0,003	0,15	0,50	0,17	0,12	1,51	0,134	-0,02	0,37
CogAL x Appr	0,01	0,03	0,40	0,690	-0,04	0,07	-0,01	0,04	-0,27	0,791	-0,07	0,05	<b>0,08</b>	0,04	1,83	0,068	0,01	0,15
Appr value 2,25													-0,12	0,05	-2,36	0,019	-0,20	-0,04
Appr value 3,25													-0,04	0,04	-0,98	0,330	-0,10	0,03
Appr value 4,00													0,02	0,06	0,35	0,725	-0,07	0,12
R <sup>2</sup>	0,42						0,19						0,26					

Table 6-4 Indirect effects of X on Y for the full moderated mediation models

	Aad					Aab					eWOM				
	(Appr)	b	SE	LLCI	ULCI	(Appr)	b	SE	LLCI	ULCI	(Appr)	b	SE	LLCI	ULCI
<b>Cue -&gt; source cred. -&gt; outcome</b>															
AL education absent		<b>-0,07</b>	0,05	-0,16	-0,01		<b>-0,11</b>	0,06	-0,22	-0,03		<b>-0,17</b>	0,08	-0,31	-0,05
AL education present		<b>-0,06</b>	0,04	-0,13	0,00		<b>-0,08</b>	0,05	-0,17	-0,01		<b>-0,13</b>	0,07	-0,25	-0,02
<i>Index of mod. med.</i>		<i>0,01</i>	<i>0,04</i>	<i>-0,05</i>	<i>0,09</i>		<i>0,03</i>	<i>0,06</i>	<i>-0,06</i>	<i>0,14</i>		<i>0,04</i>	<i>0,10</i>	<i>-0,11</i>	<i>0,21</i>
<b>Prime -&gt; source cred. -&gt; outcome</b>															
AL education absent		-0,06	0,04	-0,14	0,00		<b>-0,09</b>	0,06	-0,20	-0,01		<b>-0,14</b>	0,09	-0,29	-0,01
AL education present		-0,04	0,04	-0,11	0,01		-0,06	0,05	-0,15	0,02		-0,09	0,08	-0,23	0,03
<i>Index of mod. med.</i>		<i>0,02</i>	<i>0,05</i>	<i>-0,06</i>	<i>0,11</i>		<i>0,03</i>	<i>0,07</i>	<i>-0,08</i>	<i>0,16</i>		<i>0,05</i>	<i>0,11</i>	<i>-0,13</i>	<i>0,24</i>
<b>Cue -&gt; spons. transp. -&gt; outcome</b>															
AL education absent		<b>0,07</b>	0,04	0,01	0,14		<b>-0,08</b>	0,05	-0,16	-0,01		0,01	0,04	-0,07	0,08
AL education present		0,01	0,03	-0,04	0,07		-0,01	0,04	-0,07	0,04		0,00	0,02	-0,02	0,04
<i>Index of mod. med.</i>		<i>-0,05</i>	<i>0,05</i>	<i>-0,15</i>	<i>0,01</i>		<b>0,06</b>	<i>0,06</i>	<i>0,00</i>	<i>0,17</i>		<i>-0,01</i>	<i>0,04</i>	<i>-0,07</i>	<i>0,07</i>
<b>Prime -&gt; spons. transp. -&gt; outcome</b>															
AL education absent		<b>0,06</b>	0,04	0,00	0,13		<b>-0,06</b>	0,04	-0,13	-0,01		0,01	0,04	-0,06	0,07
AL education present		-0,02	0,03	-0,09	0,01		0,02	0,03	-0,02	0,08		0,00	0,02	-0,04	0,03
<i>Index of mod. med.</i>		<i>-0,08</i>	<i>0,06</i>	<i>-0,20</i>	<i>0,00</i>		<b>0,09</b>	<i>0,06</i>	<i>0,01</i>	<i>0,19</i>		<i>-0,01</i>	<i>0,05</i>	<i>-0,10</i>	<i>0,08</i>
<b>Cue -&gt; cogAL (x Appr) -&gt; outcome</b>															
AL education absent	2,25	0,00	0,02	-0,03	0,02	2,25	0,00	0,02	-0,04	0,03	2,25	0,02	0,05	-0,06	0,10
	3,25	0,00	0,02	-0,03	0,02	3,25	0,00	0,01	-0,02	0,03	3,25	0,01	0,02	-0,02	0,05
	4,00	-0,01	0,02	-0,04	0,02	4,00	0,00	0,02	-0,02	0,04	4,00	0,00	0,02	-0,04	0,04
AL education present	2,25	0,00	0,02	-0,02	0,04	2,25	0,00	0,03	-0,03	0,05	2,25	-0,03	0,05	-0,11	0,05
	3,25	0,01	0,02	-0,02	0,04	3,25	0,00	0,02	-0,02	0,02	3,25	-0,01	0,02	-0,05	0,02
	4,00	0,01	0,02	-0,03	0,05	4,00	0,00	0,02	-0,04	0,03	4,00	0,00	0,03	-0,04	0,05
<i>Index of mod. med.</i>		<i>0,00</i>	<i>0,02</i>	<i>-0,03</i>	<i>0,04</i>		<i>0,00</i>	<i>0,03</i>	<i>-0,06</i>	<i>0,03</i>		<i>0,03</i>	<i>0,05</i>	<i>-0,04</i>	<i>0,11</i>
<b>Prime -&gt; cogAL (x Appr) -&gt; outcome</b>															
AL education absent	2,25	0,00	0,02	-0,02	0,03	2,25	0,00	0,02	-0,03	0,03	2,25	-0,01	0,05	-0,09	0,07
	3,25	0,00	0,02	-0,02	0,03	3,25	0,00	0,01	-0,02	0,02	3,25	0,00	0,02	-0,04	0,03
	4,00	0,00	0,02	-0,03	0,04	4,00	0,00	0,02	-0,03	0,03	4,00	0,00	0,02	-0,03	0,04
AL education present	2,25	0,02	0,05	-0,06	0,11	2,25	0,00	0,07	-0,11	0,12	2,25	<b>-0,14</b>	0,07	-0,26	-0,03
	3,25	0,04	0,04	-0,02	0,11	3,25	-0,01	0,04	-0,08	0,06	3,25	-0,04	0,05	-0,13	0,03
	4,00	0,05	0,05	-0,03	0,14	4,00	-0,02	0,06	-0,13	0,08	4,00	0,02	0,07	-0,09	0,15
<i>Index of mod. med.</i>		<i>0,02</i>	<i>0,04</i>	<i>-0,05</i>	<i>0,09</i>		<i>-0,01</i>	<i>0,05</i>	<i>-0,11</i>	<i>0,07</i>		<i>0,09</i>	<i>0,07</i>	<i>-0,01</i>	<i>0,20</i>

Notes (tables 2, 3 & 4). Statistically significant effects in bold ( $p < .1$ ), and probed interaction effects (conditional effects of the focal predictor at different values of the moderator) in grey

### 6.4.1 Source credibility

Table 2 shows that, as concerns the a-path, both strategies (cue stronger than prime) negatively influence source credibility (independent of AL education, as the interaction effects are insignificant).

Table 3 demonstrates that, with regard to the b-path, source credibility has a positive effect on all three outcomes (and increasingly stronger for Aad, Ab and eWOM resp.).

Table 4, displaying the indirect effects for the complete models, shows that *independent of AL education* (as can be deduced from the insignificant indexes of moderated mediation), the cue (and, to a lesser extent, the prime) has a negative effect on all outcomes (and increasingly stronger for Aad, Ab and eWOM resp.) via source credibility. These findings confirm H1a, although partially (as no difference is made by AL education).

### 6.4.2 Sponsorship transparency

Table 2 shows that, as concerns the a-path, both strategies (cue stronger than prime) and AL education positively influence perceived sponsorship transparency. Interaction analysis indicates, however, that the strategies' effects only occur in the absence of AL education.

Table 3 demonstrates that, with regard to the b-path, sponsorship transparency positively influences Aad, but negatively affects Ab (and does not influence eWOM).

Table 4, displaying the indirect effects for the complete models, shows that only *in the absence of AL education*, both strategies (and especially the cue) have a positive effect on Aad, and a negative effect on Ab (and no effect on eWOM) through sponsorship transparency. This confirms H1b, yet again only partially (as it was expected to find a positive effect from the strategies on Ab and eWOM too).

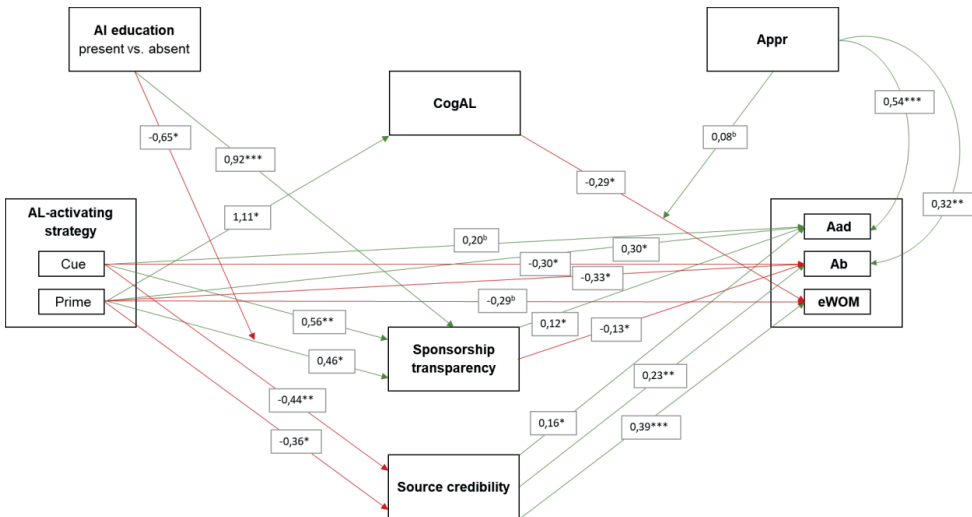
### 6.4.3 Cognitive advertising literacy

Table 2 shows that, as concerns the a-path, none of the strategies affect cogAL. However, interaction analysis reveals that in the presence of AL education, a positive effect of the prime on cogAL does occur.

Table 3 demonstrates that, with regard to the b-path, cogAL only influences eWOM, and in a negative manner. As concerns the interaction effect, conditional analysis confirms that cogAL has a negative effect on eWOM, but only when moral attitude toward BP in vlogs is low (i.e., at the value of 2.25 on 5). However, Johnson-Neyman analysis also reveals that this negative effect decreases from value 1.0 to 2.8 on Appr; and, though insignificant, that there is a trend toward an increasingly positive effect of cogAL on eWOM from value 3,8 to 5 on Appr.

Table 4, displaying the indirect effects for the complete models, shows that only *in the presence of AL education*, the prime (and not the cue) has a negative effect on eWOM via cogAL, though only when Appr is low; index of moderated mediation at the value of 2.25 on Appr:  $b = -0.13$ ,  $SE = 0.08$ , BCa CI [-0.266, -0.013]. Conversely, there appears to be a trend (non-sig.) toward a positive effect (of the prime on eWOM via cogAL) as Appr increases. These results confirm H2, though once again only partially (as they do not pertain to Aad and Aab).

Figure 6-2 Significant effects on the A-, B- and C'-paths



Notes. <sup>b</sup> $p < .1$ ; \* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ .

#### 6.4.4 Additional findings

Table 3 also entails the direct effects of the independent variables and moderators on the outcomes. In particular, following the c'-path, it is shown that both strategies (prime stronger than cue) have positive effects on Aad, but negative effects on Ab and eWOM. Moreover, Appr is found to directly and strongly increase Aad, and also Ab.

### 6.5 Discussion and conclusion

As there is currently little research into the effects of covert online advertising on children, it is tested whether children react differently to influencer marketing through brand placement in YouTube vlogs when using a forewarning cue or priming (compared to no advertising-literacy activating strategy), whether or not accompanied by advertising literacy education.

The results show that, independent from having received AL education, both strategies (and especially the cue) lower children's attitudes (toward the ad and the promoted brand) and their intention to engage in eWOM by decreasing the vloggers credibility. In case of no AL education, however, these strategies can also positively affect children's attitude toward the ad (though still negatively influence their attitude toward the brand) by increasing their perception of sponsorship transparency. In the presence of AL education, (only) the prime has a negative effect on children's eWOM intentions by activating cognitive advertising literacy; however, this effect only occurs when they morally evaluate the advertising tactic as inappropriate (and as they perceive it as more appropriate, there is a tendency toward a positive effect). Nevertheless, a positive appropriateness evaluation of brand placement in vlogs directly (and strongly) increases children's attitude toward the ad and the brand.

#### 6.5.1 Implications

To avoid consumers being misled, regulatory and advisory institutions command to disclose any sponsored content, and since recently put forward guidelines to also do so in the realm of online advertising, for instance by urging influencers to reveal possible relationships with brands (e.g., Committee of Advertising Practice, 2017; Federal Trade Commission, 2015). Undeniably, these actions are beneficial for young consumers, who are most vulnerable to preconscious (and unwanted) persuasion through covert ad practices (Hudders et al., 2017).

To brands, advertisers and the influencers they rely on, on the other hand, this pressure to clarify sponsorship may seem less advantageous, at least at a first glance. Indeed, it is shown that disclosure (whether explicit via a cue, or implicit through priming) negatively affects all of the studied indicators of ad effectiveness, by lowering children's trust in the vlogger. This indicates that children who become aware of the presence of advertising are likely to generate negative affect (as associated with traditional ads, such as TV commercials) and feel deceived, and consequently resist the ad and repel those responsible for it.

At the same time, however, it is found that disclosure may also lead to a more *positive* attitude toward the ad, when they create the perception of transparent communication of sponsorship. This finding suggests that children who feel to have been honestly informed about the presence of

advertising are also less likely to feel manipulated, and therefore more prone to tolerate or even appreciate the ad. Remarkable, however, is that increased perception of sponsorship transparency (as activated by the cue and prime) does not translate into more positive brand attitudes. This was also found in similar research among adults, where it was argued that consumers are unlikely to change their brand related attitudes (as a more distal outcome than Aad) after only one exposure to the brand (Hansen et al., 2014) – the latter being unknown to the small half of participants in the present study. Nevertheless, these results underscore the relevance of adopting a measure of sponsorship transparency in studies on disclosure of covert ads (Wojdyski et al., 2018), as it counterbalances the finding in many studies that disclosure is nothing but bad news for companies, advertisers and influencers.

From a broader perspective, the above results suggest that advertising disclosure primarily leads to affective, emotional reactions to the ad (whether negative or positive) – especially when these are evoked explicitly by a warning cue, and not accompanied by AL education. Conversely, however, the findings also indicate that more elaborate, rational (cognitive and critical) ways of coping with the ad can be triggered when relying on implicit disclosure preceded by AL education.

More specifically, it is revealed that children who are educated on (cognitive, affective and moral aspects of) brand placement, and primed by making them reflect on (the same aspects of) an ad, are more likely to apply their cognitive advertising literacy when exposed to a sponsored vlog. This prime-activated advertising literacy does not necessarily translate into a decrease or increase of ad effectiveness; rather, this depends on their moral evaluation of the ad practice. In particular, prime-activated AL only leads to a decrease in children's intention to engage in eWOM when they perceive branded vlogs as inappropriate (e.g., dishonest and wrong); and, further analyses suggested that it can also lead to an increase in eWOM when children find this advertising practice appropriate (e.g., honest and good).

It could be noted that this moderated mediation effect was not found for the other outcomes (Aad and Aab). However, it may be argued that eWOM is the most important outcome for all parties involved: children, for whom showing appreciation of a vlog could be a form of social expression; the vloggers, whose popularity may increase exponentially when their video is clicked, liked and shared; and companies and advertisers, who aim to increase brand or product awareness by viral spread of the sponsored video. Furthermore, there is a strong, positive and direct effect of children's perception of appropriateness on their attitudes toward the ad and the brand it promotes.

Altogether, it seems most beneficial for all stakeholders that children develop advertising literacy for the ad practice by learning about its goals, tactics and ways in which they could be evaluated morally (e.g., through AL education). Companies, advertisers and influencers are obliged to reveal their commercial intentions anyway – and as online covert advertising is booming, it is likely that regulatory supervision will become stricter, and penalties for failing to disclose sponsorship more severe. Therefore, they might be better off when children process their ads in a rational way, rather than via affective processes, which are still more likely to turn out negative for most parties (e.g. by feeling deceived when becoming aware of advertising). In this way, it becomes also in their own interest to behave and express themselves as honest as possible. That is, when children recognize and

understand an ad and its tactics, and judge these as morally appropriate, they may just as well decide to go along with the ad's persuasive intention – as a result of critical reflection.

Of course, it is crucial that this freshly developed advertising literacy is also triggered at the moment of exposure to the ad. In this regard, the priming strategy has proven to be most effective (in comparison with a forewarning cue). This finding is in accordance with Fransen and Fennis (2014), having found that implicit priming of persuasive intent is more efficient than explicit forewarning, as it required less cognitive resources to have consumers applying their advertising literacy. As predicted, this is especially beneficial for young children, who have more difficulties with consciously and critically processing advertising embedded in highly immersive content, such as brand placement in vlogs.

## **6.5.2 Limitations and further research**

The present study shows a number of limitations, which at their turn generate opportunities for further research. First and foremost is the practical feasibility of activating children's advertising literacy through priming by making them reflect on an ad's intentions and tactics before being exposed to it (see Hudders et al., 2017). Obviously, it is highly unrealistic to expect children going through this process every time they are about to be confronted with advertising. Therefore, follow-up studies could test whether the implicit reasoning processes triggered through priming may be activated more automatically, for instance by conditioning a mental association between the prime and a cue. More specifically, children could be primed while being exposed to a warning cue, for instance by displaying it on the paper sheet used for writing the essay (see Methods), or through inducing implementation intentions (e.g., "If I see this cue, then I will think about an ad and how it tried to influence me"; cf. Gollwitzer, 1999). This could be repeated for an undefined number of times, by showing them a different ad (preceded by the warning cue) after each priming session. It can be expected that after a few repetitions, relevant schemes related to critical thinking about advertising will be triggered by the cue alone, thus without having to prime children first. In this way, the cue could guarantee long term effectiveness of a limited number of priming sessions.

Second, it can be noted that the study's goal to address ad outcomes through activating advertising literacy (and critical thinking) only occurred in very specific circumstances, namely when children were primed and educated. As these results only pertain to one of the six experimental conditions, it is perhaps no surprise that only a negative effect is found from prime-activated advertising literacy on eWOM, that is, when perceived appropriateness is low, and no (significant) positive effect when it is high. Follow-up research could be dedicated to this condition, and extend it by manipulating the appropriateness of the ad, for instance by adding advertising stimuli promoting healthy food.

However, perceived appropriateness of the ad may have more to do with *how* sponsoring is disclosed. It has been suggested that conflicting findings regarding the effects of disclosing sponsoring in blogs on ad effectiveness are due to differences in the source of disclosure, namely by an outsider versus the blogger itself (van Reijmersdal et al., 2016). Preliminary research has shown that adolescents prefer that vloggers disclose the sponsoring themselves (van Dam & van Reijmersdal, 2018), while the present study has opted for external disclosure; this could partially be the cause for the prevailing negative effect of children's moral attitude.

From a broader perspective, this might also partially be the reason why three distinctive paths (being uncorrelated mediators) were found in the current study. Most children may have correctly noted that sponsorship was not revealed by the vlogger itself, evoking feelings of deception and making them perceive the vlogger as less credible. Other children may have believed that it was the vlogger itself having revealed commercial intentions, with the resulting perception of transparency (and thus honesty) leading to more favorable ad outcomes. Educated and primed children, finally, may have been most adept at noting the external source of sponsorship, and consequently have formed a moral opinion based on this information, which ultimately directed their responses to the vlog. Future studies may thus also manipulate disclosure source, which could imply that the activated advertising literacy also has a positive effect on ad outcomes through a positive evaluation of the appropriateness of sponsoring in vlogs.

Finally, the above also indicates that more complex and interwoven relationships may exist, which could not be fully accounted for by the elaborate yet still simple moderated mediations models in the current study. Many variables that were not adopted in this study's analyses may co-determine how children react to covert advertising in vlogs: not only feelings of deception (which may precede children's trust in the vlogger, and follow their perception of transparency; see Evans & Wojdyski, 2017), but also their previous familiarity with vlogs in general (cf. Göbel et al., 2017) and with the specific vlogger and the promoted brand or product (cf. Wei et al., 2008). For instance, vlogger familiarity was low in the current study, which could have contributed to lower source credibility and an increase in skepticism (see Hansen et al., 2014). Future research could assess all of these factors and examine how they are interrelated, for instance through structural equation modelling.



## 6.6 References

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## 6.7 Appendix

Figure 6-3 Snapshot of extra video material

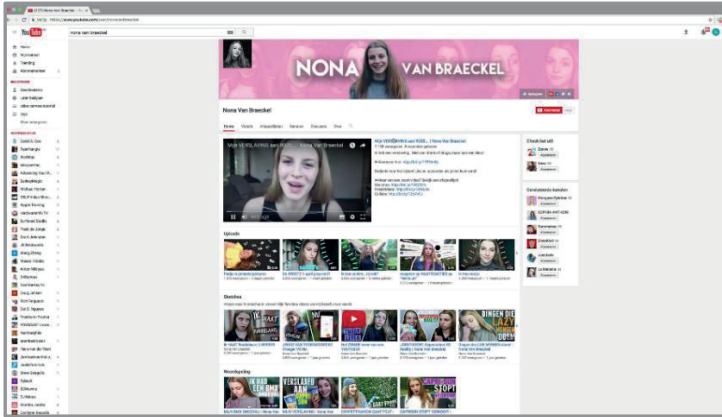


Figure 6-4 Snapshot of visual forewarning cue within YouTube window

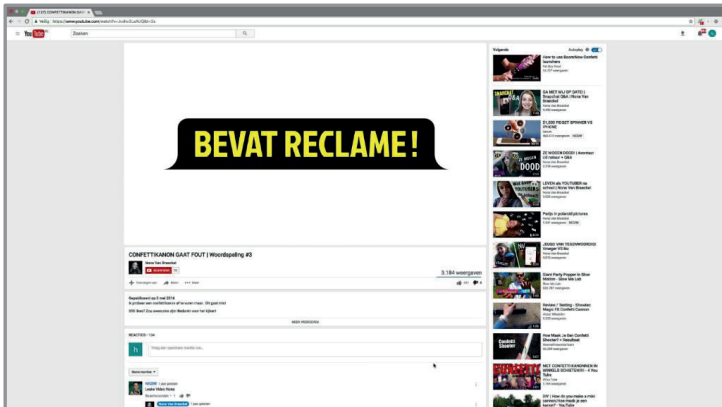


Figure 6-5 Snapshot of vlogger showing branded product to camera







## 7 GENERAL DISCUSSION AND CONCLUSION

Today, children are increasingly targeted with advertising using implicit tactics and pursuing commercial goals that are difficult for them to reveal. Consequently, more and more ethical concerns are voiced, as children's developmental status would make them highly susceptible to preconscious and possibly unwanted persuasion (Nairn & Fine, 2008). This has amounted to a lively academic and sociopolitical debate, which seems to be dominated by two assumptions, namely that 1) children are unable to cope with contemporary advertising – or at least not in a cognitively elaborate, critical manner; yet also that 2) children may be enabled to deal with this advertising, though only when they are learned to use affective defense mechanisms (Rozendaal, Lapierre, van Reijmersdal, & Buijzen, 2011).

In the present dissertation is acknowledged that these assumptions are well-substantiated, but also argued that crucial nuances should be added. Therefore, its aim was to deliver theoretical and empirical contributions to the extant literature on children's advertising literacy, and more specifically by 1) exploring 8- to 12-year-old children's abilities to cope with contemporary, embedded advertising, and by 2) investigating their abilities for doing so in a well-advised, critical way through acquiring and using advertising literacy (rather than via evoking negative attitudes toward advertising only).

This final chapter first presents a brief summary of the main findings and conclusions for the studies reported in this thesis, and then discusses its key and/or more general implications and limitations, and finally provides suggestions for future research.

### 7.1 Summary of findings and conclusions

The first three chapters in this dissertation mainly aimed to refine insights and draw conclusions about children's abilities to cope with the mostly embedded advertising formats they are currently targeted with, by challenging the first assumption:

#### **Assumption 1: Children are unable to adequately cope with contemporary advertising**

Reckoning with children's developmental abilities, the first chapter started by building a theoretical foundation on which their advertising literacy can be investigated (Hudders et al., 2017). Proposing a comprehensive and holistic conceptual model, it was argued that research may reveal that children are more adept at coping with embedded advertising than previously thought (see De Jans, Van de Sompel, Hudders, & Cauberghe, 2017), when acknowledging different types and dimensions of advertising literacy. First, it was suggested to make a clear distinction between dispositional (i.e., possessing) and situational (i.e., using) advertising literacy and to acknowledge the coping skills needed to connect both types. Second, it was urged to fully recognize the indispensable role of moral advertising literacy next to cognitive, attitudinal or affective advertising literacy, as well as the interplay between these dimensions in determining the outcomes of the coping process.

In the second chapter, this conceptual typology was deployed to reveal methodological ambiguities in extant research on children's advertising literacy, as these may have contributed to the

inconsistent findings and divergent conclusions regarding their coping abilities (see Hudders et al., 2017; Kunkel, 2010). Based on the resulting overview, recommendations were formulated with regard to measuring children's advertising literacy according to their age-dependent psychological development (Zarouali et al., 2017). It was not only reasoned that children in late childhood acquire the necessary skills to develop and use every aspect of advertising literacy (as identified in the first chapter), but also for these constructs to be assessed with a wide range of methods and instruments. The use of questionnaires was considered appropriate, though with the suggestion to visualize items and answer options as much as possible. Further, it was emphasized that, for children at these ages, qualitative interviews may be particularly suitable to explore more deeply how they cope with the current complexity of advertising. These suggestions were taken to heart in following studies.

As in previous chapters an important role was attributed to moral advertising literacy as prerequisite to fully cope with contemporary advertising – and especially with those formats that are most unclear about their commercial nature and intentions – the third chapter aimed to gain rich insights in children's abilities to morally judge these practices. Thereby it drew on focus groups using child-friendly (visual) eliciting and probing techniques, and on a reevaluation of the much-cited yet rarely fully-honored Persuasion Knowledge Model (Friestad & Wright, 1994). In summary, it was found that, initially, children had little knowledge of ad formats that make use of implicit tactics, and that they strongly questioned the mechanism of preconscious persuasion. However, when they were made aware of these tactics, convinced of their effectiveness, and encouraged to imagine the potential consequences for others, they showed the ability to understand, and to form complex judgments based on moral reasoning. Having established their potential for well-advised critical thinking, children's moral advertising literacy and evaluation of the appropriateness of ad practices were assigned a central role in the following three, empirical studies – challenging the second assumption:

### **Assumption 2: Children can be enabled to deal with advertising, but only through affective defense mechanisms**

In the second half of this dissertation, insights were gained and conclusions were made about how children can be empowered to acquire the relevant advertising literacy and to actually make use of their abilities to critically process the contemporary advertising formats (as established in previous chapters) when the need arises, and about the underlying (not only cognitive and/or affective, but also moral) pathways that need to be considered, expanded and activated to reach this desired goal.

The fourth chapter made a first step toward these goals by having investigated major determinants of advertising literacy, and more specifically the extent to which children's dispositional advertising literacy is influenced by their social context. Although it has rarely been thoroughly investigated what is the impact of important socializing agents in the daily lives of children on their acquisition of advertising literacy (De Jans et al., 2017), it can be argued that such insights are crucial to develop interventions and strategies to effectively impart and exchange the advertising-related knowledge, skills and beliefs needed cope with subsequent exposure to contemporary advertising formats (see below). Using the appropriate statistical (multilevel) techniques, it was revealed that children's cognitive and attitudinal advertising literacy is strongly determined by group level influences, and especially by their peers or classmates – which were indicated to have empowering qualities



regarding the transfer of literacy and attitudes related to advertising. Moral advertising literacy was found to be a more individually determined feature (cf. McAlister & Cornwell, 2009), though significantly and negatively influenced by teacher's self-perceived level of advertising literacy – insights ultimately suggesting to also update teachers' (and parents') knowledge and beliefs regarding the newer ad formats and tactics (see below). Moreover, with regard to affective attitudes as defense against commercial persuasion, additional findings indicated that children's literacy development may benefit more from a receptive than an indiscriminately negative stance toward advertising.

Finally, the fifth and sixth chapter built on insights gained in the previous studies to develop and test interventions and strategies that enable children to cope more effectively with embedded ad formats by triggering their advertising literacy at the moment of exposure, thereby aiming to evoke critical processing rather than mere affective dismissal of the ad. In Chapter 5, it was proven that disclosure by a visual forewarning cue (versus an auditory cue, or a visual cue that is shown concurrently) is most effective in activating children's advertising literacy for TV and movie brand placement. Moreover, it was shown that the activated literacy actually increased persuasion, but only for children that were least skeptical toward these ad practices. In chapter 6, then, it was demonstrated that for a highly engaging embedded ad format (i.e., a sponsored vlog), a more implicit strategy requiring less cognitive resources, namely priming (preceded by advertising literacy education) (cf. Fransen & Fennis, 2014), is more effective than an explicit forewarning strategy in addressing children's ad literacy. Similarly, this literacy inhibited the intention to engage with the promoted brand, but only among children that judged the ad tactic as inappropriate – while a positive moral evaluation of this practice favored their attitudes toward the ad and brand. Importantly, both studies indicate that children can be enabled to cope with advertising in a critical way – or at least in a more nuanced manner depending on their evaluations of the advertising practice – when the need arises.

## **7.2 Implications**

### **7.2.1 Implications per chapter**

The research documented in this thesis has yielded many specific (theoretical, empirical and practical) implications, which were presented at the end of each chapter in more detail.

In brief, the first two chapters recommended researchers to acknowledge advertising literacy as a complex concept or construct with multiple interwoven dimensions, and to assess it accordingly using age-appropriate methods; that is, if they aim to fully uncover children's advertising coping abilities. In this regard, the third chapter urged them to recognize the importance of moral advertising literacy, as children were found to have the abilities to judge the appropriateness of implicit advertising tactics – which is more important than ever considering the covert nature of most advertising formats currently aimed at children, and for them to arrive at the most comprehensive evaluations of these practices.

To public and regulatory policy, these first three chapters emphasized the importance of not only considering children's current abilities to cope with contemporary advertising, but also of acknowledging their (hidden) *potential* to do so. As the studies reported in these chapters indicated that children in late childhood are also “cued processors” (John, 1999) in the current advertising context – that is, they demonstrate the abilities to adequately process contemporary ad formats, but these need

to be externally 'awakened' (e.g., by a simple explanation of ad tactics; cf. De Pauw, De Wolf, Hudders, & Cauberghe, 2017) – the political and societal debate should perhaps steer away from mere protection and restriction, and focus more on interventions addressing children's latent abilities to cope with advertising on their own.

Subsequently, the following three chapters presented specific implications for how such interventions could be designed and tested by researchers and eventually implemented by governmental agencies. The fourth chapter demonstrated the importance of peers in transferring and jointly developing and refining knowledge, skills and beliefs related to advertising, and thereby proposed to employ (the dynamic between) classmates to extend children's advertising literacy, for instance through peer-led educational training sessions (cf. Pinkleton, Austin, Cohen, Chen, & Fitzgerald, 2008). In this regard, it also revealed possible weaknesses and opportunities concerning children's teachers and parents, who could be targeted with campaigns to improve their advertising literacy first, to ensure children receive the most relevant and correct information about the newer ad formats (cf. Cornish, 2014). Furthermore, and with regard to the content of future interventions, the findings in this chapter suggested that children may benefit more when these primary socializing agents teach them an open, receptive stance rather than cultivate immediate resistance toward advertising (see next section).

Finally, the fifth and sixth chapter showed how this advertising literacy could be activated at the actual moment of exposure to entertaining, embedded ads. Chapter 5 focused on advertising disclosure through warning cues as a situational intervention, and emphasized the importance of considering (and further studying) cue characteristics in capturing children's attention needed to trigger adequate coping behavior. Chapter 6 further examined interventions that allow children to cope with the most engaging ad formats by using a minimum of cognitive resources, and encouraged researchers to further investigate the practical employability of implicit priming strategies (as these were found to be more effective than explicit forewarning strategies in triggering children's advertising literacy). Especially important for researchers, but by extension also for any stakeholder in the realm of advertising, is that both studies affirmed the moderating role of skeptical and moral evaluations of the advertising practice as the way through which critical reflection on advertising may occur – on which is elaborated in next section.

## **7.2.2 Implications throughout this dissertation**

### **7.2.2.1 Theoretical and empirical implications**

More general, and as a common thread running through and linking the studies, are the implications of the findings and conclusions regarding the role of advertising-related attitudes, and how these relate to critical reflection on ads and their tactics. In particular, it was repeatedly noted that scholars increasingly pin their hopes on evoking negative, affective attitudes toward advertising as the ultimate and perhaps only way for children to cope with current forms of advertising (cf. assumption 2). As these attitudes are found to trigger resistance to persuasion (i.e., by negatively affecting outcomes desired by the advertiser), they are often considered to constitute a dimension of advertising literacy (e.g., Rozendaal et al., 2011). However, some reservations could be made here, which may have substantial implications

for theory underlying the design of empirical studies and interventions related to children's advertising literacy.

First thing to consider is the general definition of advertising literacy, which refers to the knowledge and skills needed to allow for the critical processing of advertising (Hudders et al., 2017) – of which the outcomes can be either negative or positive, depending, for instance, on a child's judgment of the appropriateness of the persuasive tactics used in an ad (cf. Chapter 5 & 6). Arousing negative attitudes toward advertising, by contrast, is generally hoped to evoke a direct, specific, and one-sided evaluation with a clear, negative direction, aiming for indiscriminately unfavorable responses to any ad, irrespective of the fairness or manipulateness of its tactics (as could otherwise be reflected on by the child, cf. Chapter 3). Of course, it would be unwise to oppose such noble efforts to protect the youngest children from the influence of harmful advertising, for instance in the case of products that are detrimental to their health (e.g., Rozendaal, Buijs, & van Reijmersdal, 2016). However, it can be argued that such attempts may discourage companies who are determined to advertise fair products in an honest way – a practice that could otherwise be rewarded by a positive ad response from children, as a result of critical reflection.

But yet again, children's capacity for critical thinking in the current context of overstimulating and embedded ad formats should not be overestimated. There is much to be said for creating a level playing field, in which the implicit tactics advertisers use to persuade (covertly, in an overwhelming and therefore mentally depleting media context) are counterbalanced with implicit strategies that allow children to cope with advertising using a minimum of cognitive resources. Such strategies could indeed make use of affective mechanisms (that induce reactance among children) as these are found to effectively override advertisers' attempts to transfer positive emotions from engaging media content to the integrated brand or products (e.g., Rozendaal et al., 2016).

Nonetheless, the present thesis indicated that one should also not *underestimate* children's capabilities to critically process advertising. More specifically, several findings suggested that implicit strategies (such as priming, see Chapter 6) may also be used to maintain the cognitive space required for moral and even ethical reflections on advertising tactics, resulting in evaluations that at least partially determine the extent to which children comply with the advertisers' intentions. Undoubtedly, as long as children are developing they will always have difficulties and often fail to cope in the well-informed manner described above. However, it can be argued that the earlier and the more they practice through experience (incl. trial-and-error) with elaborate and nuanced processing of advertising (rather than being shielded from it), the better they will become at it in the near future – pursuing the ultimate objective of turning them into independent consumers making conscious decisions which serve their own goals (Friestad & Wright, 1994; Wright, Friestad, & Boush, 2005).

That being said, the fundamentals of attitudinal mechanisms to cope with advertising definitely call for further scrutiny. For one thing, it may give rise to interesting debates on the mental connections children make with the very concept of "advertising". In particular, underlying the rationale for attitudinal defenses toward advertising lays the assumption that children dislike advertising. Indeed, the many interviews and surveys from which this thesis is composed suggest that children predominantly associate this concept (e.g., when hearing, reading or seeing the word "advertising") with traditional forms of advertising, such as TV ads. As TV commercials interrupt media content (rather than being

merged into each other) they are not only likely to evoke feelings of irritation, but are also more easily identifiable as “advertising” (with a more obvious commercial intent than newer ad formats), implying that this concept has negative connotations for most children.

Now, as attitudinal defense mechanisms rely on evoking these negative emotions and transferring them onto any ad children are exposed to, one may wonder whether such strategies will stay effective if such connotations would fade. The latter is a likely scenario, as marketers continually attempt to break through the advertising clutter generated by traditional formats, and aim to capture children’s scant attention by integrating commercial messages in fun and entertaining media. In Chapter 3 (and 6), it was already noted that while children often notice the presence of brands and products, they do not always perceive this to be advertising, and that (when making them aware of it) they are mostly positive about such practices, especially when compared to the irritation they feel for traditional ads.

In other words, this evolution toward more “pleasant” forms of marketing could not only imply that children will have an increasingly unclear picture of what constitutes advertising, but also that they may develop more positive feelings toward this concept when it is labeled as such – thus shattering the very foundations of attitude-based opposition against advertising. Notwithstanding, even when advertising fails to shake off the bad connotations it has for children, it can be assumed that marketers will always come up with methods to neutralize or transcend these negative emotions, for instance by turning each time to the most engaging media to have their commercial messages embedded in (cf. sponsored vlogs in Chapter 6).

In spite of these considerations, this dissertation definitely acknowledges the pivotal role of advertising-related attitudes. Unlike extant research, however, it is advocated that these attitudes are assigned a moderating rather than a direct mediating role, whereby advertising literacy – as an inherently neutral construct – alters advertising effects in a way determined by critical thinking, or at least more elaborate reflection. The latter can then be supposed to occur when advertising literacy, or the recognition and comprehension of an ad and its tactics, leads to favorable ad outcomes if the child positively evaluates various aspects of the ad (cf. Chapter 5), and to adverse reactions if the child negatively judges these (cf. Chapter 6).

Here it could be noted that this thesis focused primarily on moral evaluations of ad tactics. In particular, it was found that when children in late childhood were made aware of implicit ad tactics, they were able to judge these advertising practices based on their perceived effectiveness and possible consequences for others, for instance by asking themselves, “Is it fair that little children are influenced by ‘hidden advertising’ without their awareness, making them pester their parents?”. Moreover, it was demonstrated that children can be triggered to form such evaluations during ad exposure by using interventions (especially education combined with implicit priming strategies), consequently altering outcomes desired by the advertiser.

However, it could be argued that the child can ask itself many considerate questions that may constitute critical (or at least elaborate) thinking and codetermine their willingness to engage with an ad, and should be considered when developing advertising literacy training sessions. Children could also be encouraged to reflect on, for instance, whether the ad is *creative* or well made, as can be illustrated in the case of brand placement: “Is the product or brand merely shown, or are the possible

usages also demonstrated?"; "Does it fit the story, or are certain scenes clearly dragged into it just for the sake of advertising?"; "Is the way in which is advertised well found, fun and perhaps even beautiful, or none of that?".

Another, important category of questions may pertain to the ethical nature of the *products* advertised (cf. Eagle & Dahl, 2018), whereby a child may ask itself: "Are the products placed unhealthy, such as alcohol, tobacco or fast food? Or is the movie character promoting a healthy juice of a particular brand?" Importantly, this example highlights the importance of other, complementary types of literacy, for instance in the realm of food and substances. In other words, children should also possess a fair amount of topic knowledge to fully judge the appropriateness of an ad, and to form – in the words of Friestad and Wright (1994) – "valid" attitudes about the persuasion attempt.

### **7.2.2.2 Practical implications**

The previous section should also inform and inspire public and regulatory policy, which is ideally backed by theory- and evidence-based insights. In particular, by concluding that children in late childhood have the potential and can be enabled to cope elaborately and even critically with contemporary advertising, this dissertation advocates adherence to a paradigm of empowerment rather than vulnerability. Consequently, it is to be hoped that governmental agencies will choose the path of enabling these children to deal with advertising head-on by supporting researchers in developing interventions and strategies, rather than of merely shielding children from advertising, for instance through regulation and restriction.

However, it should be noted that not all interventions are inherently or fully empowering, for instance when they solely aim for (or come down to) triggering children's affective defenses toward an ad. A possible illustration is the recently leaked (and currently unvalidated) proposal for guidelines drafted by the Belgian Federal Public Service for Economy, in which online influencers are obliged to clearly communicate to their followers when they are compensated for mentioning or promoting brands, products or services (in their posts on social media such as YouTube, Instagram, Facebook and Twitter). More specifically, it is proposed that these influencers identify any sponsored message, video or image by adding "#advertising" at the front of its title (Feys & Bauwens, 2018)

It can definitely be argued such explicit forewarning disclosures may help children to recognize embedded commercial content (cf. Chapter 5), which could subsequently set conscious and perhaps more elaborate processing in motion. However, as indicated in the final chapter, presenting a mere disclosure cue is likely to trigger mainly affective responses that influence advertising outcomes in an indiscriminately negative way, for instance by lowering the communicator's credibility – which is also the main obstacle for influencers to be transparent about sponsorship (Koch & Zerback, 2013), and therefore perhaps for the successful adoption of such guidelines. Hence, disclosure cues should be introduced in such a way that they rather encourage more nuanced critical thinking – which may have the additional advantage that honest advertising practices are rewarded (as was reasoned earlier), and therefore also that these guidelines are more readily followed.

To support critical thinking, policy bodies can be recommended to at least provide the target groups of such interventions with an explanation of what is being attempted to achieve with these disclosure cues. As demonstrated in Chapter 6, for children this could entail concise advertising literacy

educational training sessions, in which (embedded) advertising is not necessarily portrayed as a bad thing that is to be avoided as soon it is recognized as such. Rather, these sessions could promote an open, receptive stance toward advertising by linking the proposed disclosure cue to a neutral explanation of the ad format, the tactics it uses, and the many ways in which they could be evaluated (e.g., morally).

Though looking in the first place to additions to the curricula of primary schools and their teachers to impart this knowledge (or to assist peer-led training sessions), this dissertation also suggests to consider approaching parents for instance through sponsoring campaigns (not only aiming to inform their children, but also for parents themselves to be educated about contemporary ad formats). Moreover, it is recommended to fund further research on more implicit strategies such as priming or implementation intentions, which in training sessions could be linked to these cues, to ensure that they also allow for children's freshly acquired knowledge and skills for critical thinking to be used during exposure to commercial content.

In other words, when following these suggestions in the policy-making process, it should not only be more likely that companies, advertisers and endorsers comply with the proposed guidelines for sponsorship disclosure, but also that well-meant interventions are more instructive to children and thus more fruitful in the long term. Although it would be an illusion that children can be empowered to consistently cope with every ad, well-thought-out interventions and strategies may support them to learn more rapidly from processing advertising through experience, practice, and trial-and-error. If not immediately, such efforts may eventually lead children to deal with advertising that is not transparently communicated (or labeled as such) in the future.

Altogether, it seems appropriate here to emphasize what was already argued in the previous chapter, namely that it may be most beneficial for any party involved – thus not only children but also companies and advertisers – that advertising is fair and clearly disclosed by those responsible for it, and that children are encouraged to develop advertising literacy and motivated to engage in critical thinking about advertising. Aiming for children to preconsciously, affectively process covert advertising may certainly yield advantages for companies, yet perhaps primarily short-lived ones. These can probably not outweigh the long-term disadvantages created by violating children's trust when they discover being manipulated, for instance through external disclosure of sponsorship – regardless of whether it spurs negative moral judgments or attitudinal defenses through feelings of deception.

As the amount and scope of initiatives to enhance children's advertising literacy is growing (e.g., AdLit, 2018; Media Ridders, 2018), and as being transparent about sponsorship becomes increasingly mandatory for advertisers (Wojdyski, Evans, & Hoy, 2018), it seems in their best interest to make children aware of the presence of advertising, and aim to have them process this information in a more rational (rather than affective) manner. When children approve of these efforts and perceive the ad as nice and fair, they may just as well decide to comply with its commercial intentions.

### 7.3 Limitations and opportunities

This section covers possible limitations that have not been fully addressed in the current thesis, and identifies resulting opportunities for future studies.

First, although adapted or new constructs, measures and strategies were put forward (especially in the conceptual and methodological chapters of this dissertation), some of them still need to be elaborated upon and tested. In particular, as preference has been given to first scrutinize the role of attitudinal advertising literacy or advertising-related attitudes (being predominant in the current literature), the proposed concept of *affective* advertising literacy (which is similar yet also quite different) has not yet been made operational. However, Chapter 1 has advanced a clear definition (i.e., “the conscious awareness of one’s initial emotional reactions toward advertising, and the ability to regulate or suppress these reactions”), and Chapter 2 has suggested several ways to measure this concept among children of different ages. However, the proposed methods could be quite challenging to develop and execute. First, a thorough knowledge of the extensive and complex literature on emotion regulation may be required (Adrian, Zeman, & Veits, 2011). Second, and especially for the youngest children, it may be necessary to assess their levels of affective advertising literacy implicitly and individually, for instance through observation (Lapierre, 2016), think-aloud protocols (Rozendaal, Buijzen, & Valkenburg, 2012), or by measuring psychological-biological indicators in clinical settings (Lewinski, Fransen, & Tan, 2016). In other words, it could be recommended to devote a significant amount of time and effort to set up a number of fully dedicated studies.

Conversely, with regard to moral advertising literacy, not only a definition has been stated (i.e., “the ability and propensity to morally evaluate advertising”), but the concept has also been thoroughly explored in Chapter 3. Moreover, Chapter 4 has introduced a simple measure, which has allowed for identifying a significant amount of variation between individual children’s tendency to reflect about advertising’s appropriateness. Nonetheless, future research should be dedicated to developing and validating a proper scale that captures every possible aspect of moral advertising literacy. However, it should be noted that this concept could also be assessed without the use of numerical scales. For instance, children could be presented with moral dilemmas related to advertising tactics (cf. Chapter 3), consequently probing them about how they arrived at certain choices and the underlying reasoning strategies. The answers on these open questions could then be coded to represent the level of moral reflection upon an ad (format and tactics).

Also, concerning the new or combined strategies that have been advanced to cultivate and activate children’s advertising literacy, some of the interventions deemed to be promising still need to be developed and tested. In Chapter 1, for instance, it was proposed that children may be taught specific implementation intentions (Gollwitzer, 1993, 1999) and according heuristics (whether or not combined with existing interventions such as warning cues) to help them with critically evaluating advertising in a more automatic manner. Nevertheless, the studies reported in Chapter 5 and 6 suggested that critical ad processing can already be stimulated with simple forewarning and priming strategies and training sessions. On the other hand, it can be noted that neither of these studies succeeded in finding a full interaction effect that otherwise may have confirmed nuanced critical thinking: advertising literacy had a negative influence on ad persuasiveness in case of a negative moral judgment (in Chapter 6), or a

positive effect in case of when skepticism was lacking (in Chapter 5), but not both at once. As suggested before, these unilateral evaluations might be due to little variation in children's perceptions of the appropriateness of the products advertised and the tactics used in the presented ad stimuli – which could perhaps be solved by manipulating these factors. However, it cannot be excluded that children's critical thinking could be stimulated even more effectively through implementation intentions, as this strategy might address even less cognitive resources than forewarning and priming (and their combination, which also remains to be tested).

A second potential limitation is that the experimental studies in this dissertation might have not taken all of the possibly relevant factors into account, which is primarily due to technical limitations. The statistical models were relatively simple (considering the complex reality of children's relation to advertising) though still heavily loaded. Therefore, focusing on the newly proposed constructs, potential co-determinants such as familiarity with or pre-existing attitudes toward the brand or product (category) (e.g., Campbell & Keller, 2003) were not accounted for. To allow for more complex and interwoven relationships, future studies could strive to obtain larger samples, and/or examine these through structural equation modelling followed by path analysis (cf. Vanwesenbeeck, Walrave, & Ponnet, 2016). Next, and for the same reason, not all of the own recommendations were followed, such as controlling for possible group effects (e.g., by adding a dummy variable for each class – see Chapter 4), as the statistical program used only allowed for a limited number of covariates (Hayes, 2017). Further research could look into solutions to overcome these technical obstacles.

Third, it should be noted that this dissertation has limited itself to a single age category, namely 8- to 12-year-old children (i.e., late childhood). Considering the motivation to focus on “cued processors” (see Introduction) and the fact that in general few age differences were found within this group concerning advertising literacy, this should perhaps not be regarded as a shortcoming. However, it would be highly relevant to empirically identify age-specific breakpoints in the whole range of childhood with regard to children's abilities to cope with contemporary advertising (through critical reflection, also situationally) departing from the conceptual and methodological framework proposed in the first chapters of this thesis. In this way, it could also be ascertained till what age most children lack the abilities to be enabled to independently deal with specific ad formats, and should hence be protected, for instance through regulation.

## **7.4 Further research**

Apart from the opportunities that can be seized when considering the limitations described above, and the elaborate research agenda already put forward in Chapter 1, many more avenues for further study can be suggested to deepen and expand the insights provided in this dissertation – three are proposed in this final section.

First, with regard to moral advertising literacy, which in this thesis was mostly focused on advertising formats and tactics, future studies could also concentrate on advertising *content* or children's “topic knowledge” (Friestad & Wright, 1994), entailing their knowledge and beliefs about the topic of an ad (e.g., about the promoted product or service). As mentioned before, to fully evaluate an ad, children should perhaps not only morally evaluate the persuasive tactics used, but also consider



the ethical nature of the advertised products, for example by asking themselves whether it is appropriate to promote high energy density food products or substances that pose a risk for people's health, or clothes that are made in low-wage countries, or toys made from plastics that accelerate earth pollution. More specifically, it could be investigated whether educating children about these products (including their sustainability) and the consequences of consuming them (for themselves and others) may alter the way in which they evaluate these ads. Similarly, research could look into the “themes” or environmental, heuristic cues that are used to advertise, for instance by considering children's judgments of ads that involve violence (cf. Sekarasih, McDermott, O'Malley, Olson, & Scharrer, 2016), or stereotypes regarding gender (cf., Bakir, Blodgett, & Rose, 2008), body image (cf. Van de Sompel & Vermeir, 2016) or racial/ethnic minorities (cf. Maher, Herbst, Childs, & Finn, 2008). Overall, such efforts would lead to a clearer conception of what constitutes critical reflection on advertising, and how this could be assessed.

Second, and although the main conclusion (that children can be enabled to cope critically with contemporary advertising) should be generalizable to most advertising formats, it should still be worthwhile to investigate children's advertising literacy for the many other (online) formats and tactics that were not (elaborately) studied within this dissertation. Of particular interest in the current context should be search engine marketing (SEM), as a recent report has shown that currently less than a third (28%) of 8-11-year-old children are able to identify sponsored links on Google as advertising, and that less than a quarter (22%) of these children understand that such links are solely displayed for the sake of marketing (Ofcom, 2017). As the green boxes with the word 'Ad' accompanying these links are apparently not sufficient in helping children cope, future studies may investigate whether and how advertising literacy education may help them to recognize and understand this label and evaluate the advertising practice it warns for, and, eventually, test whether alternative, more child-friendly disclosure cues are more effective to achieve these goals (cf. De Jans et al., in press).

Furthermore, it should be noted that many of these online ad formats are individually tailored by processing personal information collected among targets, including children. As in this case ethical concerns are obviously most severe, and have led to investigating possible legal issues with such practices (e.g., Lievens & Verdoodt, 2018; Verdoodt, Clifford, & Lievens, 2016), further research on this matter is urgently needed. In this regard, Chapter 3 of this dissertation already provided a starting point by assessing children's thoughts on retargeted pre-roll video ads on social media (De Pauw et al., 2017). Besides from the finding that children were largely unaware of how these ads function (and were initially unconvinced of their persuasive power), the interviews brought some 'new' or unexpected issues (as experienced by children) to the surface, for instance with regard to the low informative value of personalized ads, and their possible breaches of social (versus institutional) privacy. These findings suggest that more dedicated research (yet also including quantitative studies) should be devoted to this topic, as the many insights that might be left untapped could be crucial to substantiate interventions, and regulatory and policy stands and decisions.

Finally, a more general suggestion for future research can be derived from the plea made throughout this thesis for a reappraisal of interdisciplinarity in studying children and advertising. For instance, Chapter 4 commented on the predominantly psychological focus on the individual child, as it was found that many socio-contextual factors (such as peer culture) codetermine its level of advertising

literacy. Nevertheless, as only an impetus was given to apply sociological insights to this topic, there are still many opportunities for further studies to examine the role of for instance school or class culture and SES in more detail, with lots of insights to be gained from delving into educational research and its long tradition of investigating school and class effects (Townsend, 2007).

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