Abstract

Purpose: This exploratory study examines what parents from across the United States know about online advertising/marketing tactics directed at children, their familiarity with these tactics, and what they believe about the appropriateness of using these promotional methods to target children.

Design: The online survey company Qualtrics was used to collect data from 500 parents in the United States. Parents had to have at least one child between the ages of 5 to 14 to participate. To ensure socio-economic diversity, half of participants had an associate degree or more of schooling while the other half of participants had some college or less. Participants were given vignettes describing 11 different online advertising/marketing tactics and were asked how familiar they were with each tactic, whether they could identify the tactic by name, at what age they believed their child could understand the promotional intent of the tactic, and the age that they thought it was ethical to use this tactic with children.

Findings: The results revealed that parents were only moderately familiar with many of these advertising/marketing tactics and had difficulty identifying most of them by name. In addition, parents reported that, on average, most 11-year-old children would understand the purpose of these marketing approaches and that it was ethical to target children with them.

Originality: The results of this exploratory study offers researchers some key insights into how American parents perceive online advertising that targets children.

Paper type: Research paper

Keywords: online advertising, new media advertising, parental knowledge, parental attitudes, exploratory study

Parental awareness of new online advertising techniques targeting children: An exploratory study of American parents

Children in the U.S. are vital contributors to the consumer market. They influence family purchases, they spend their own money on consumer goods, and brands are eager to establish long-term bonds with them (McNeal, 2007). As such, marketers employ tremendous resources to reach out to the youth market. This attention to the child market yields dividends for marketers as research shows that children who see more advertising messages more likely to express a desire for advertised products (Lapierre *et al.*, 2020).

Over the last decade, however, marketers have faced a considerable challenge in reaching younger consumers. While live television has traditionally dominated as the screen medium of choice for children and teens (Rideout, 2017), changes to the media landscape have provided audiences with an array of options to consume media. Importantly, these changes have made it much more difficult to target children and teens with commercial messages.

According to research by Common Sense Media (Rideout and Robb, 2019), young people today are more likely to watch TV shows on smartphones/tablets and most teens and tweens report enjoy watching online videos on platforms like YouTube rather than traditional television. This research further shows that younger audiences are more likely to turn to digital games and social media platforms for their media enjoyment. For these reasons, marketers have begun employing techniques that are better equipped for connecting to younger audiences in this media environment as things like advergames and product integration by social influencers have replaced traditional 15 second television commercials (Gunter *et al.*, 2014).

These changes by marketers in how they reach young people often means they need to blur the lines between editorial content and advertising content. In the traditional media world,

advertising content is typically kept distinct from editorial content (with the exception of product placement) but in these new media formats, it is often difficult for young viewers to recognize the commercial intent of these marketing strategies because these distinctions are not as clear (An, Jin and Park, 2014; van Reijmersdal *et al.*, 2017). One way to help children negotiate the new commercial environment is through parental involvement as parents may be an important line of defense when it comes to helping their children engage with these commercial messages. Specifically, research has shown that parents' active discussions with their children about advertising messages can help reduce advertising effects (Buijzen, 2014). However, these recent changes in the media landscape has potentially made it more difficult for parents to provide this help (Spiteri Cornish, 2014). With these new online tactics, it is unclear whether parents are aware of how marketers are potentially reaching their children.

Despite its importance, little is known about parental awareness/knowledge regarding these new online advertising techniques. Of note, the authors could find just one study that has explored parental attitudes and their views about the ethical appropriateness of these advertising techniques (see Daems, 2018). Yet, this study did not examine what parents knew about these tactics and was limited to parents in one country in Western Europe. Therefore, this exploratory study extends this research by examining what parents know about these online and new media marketing tactics with parents in the United States. Specifically, this study explores how familiar parents are with these new marketing tactics, whether they can identify these tactics, the age at which they believe children need to reach before they can understand these tactics, and the age at which parents think using these tactics are ethically appropriate for children/teens.

Online Advertising to Children

As live television viewing has declined among young people (Rideout and Robb, 2019), marketers have attempted to expand their ways to approach these customers in a number of ways. Specifically, as children's mobile and internet connected device use has increased (Rideout and Robb, 2019), marketers have recognized online platforms as ideal places to promote products. In addition, research shows that marketers yield high returns with new media marketing which needs relatively small investments (Calvert, 2008). Hence, marketers have developed various persuasive techniques to attract these young audiences in online platforms.

One notable feature of these newer online advertising techniques is their ability to use children's personal information and track behaviors in these settings. For example, on social networking sites, advertisers are able to collect users' personal information, such as their names, media products they have watched, and groups they are involved with and apply the information they have gained to provide advertisements that fit the users' needs and interests (De Keyzer, Dens and De Pelsmacker, 2015). Considering young children's difficulty in understanding and processing advertising messages (Wilcox *et al.*, 2004; Rozendaal, Buijzen and Valkenburg, 2010; Panic, Cauberghe and De Pelsmacker, 2013), their exposure to personalized advertising techniques may make them more susceptible to advertising messages in these contexts.

For this reason, van Reijmersdal and colleagues (van Reijmersdal *et al.*, 2017) investigated whether the personalization of advertising to children influences their brand attitudes and purchase initiations. They found that participants were less likely to recognize that advertising messages were intentionally tailored for them by using their personal information on SNS. Furthermore, what increased their positive brand attitude and purchase initiation was not their perceived relevance of the advertised products or targeting recognition, but their liking of the advertisements. In other words, the researchers found that affective aspects of advertising

messages appealed to children as these children may have employed lower levels of cognitive work to process these messages. This finding is in line with previous research that children are more likely to be persuaded with peripheral elements of advertising messages (Rozendaal *et al.*, 2011).

A second issue to consider with online advertising to children is that these newer online advertising techniques merge persuasive messaging into non-persuasive message content (e.g., games, user-generated videos, etc.) so that viewers are less likely to notice the commercial intent while consuming the original content (Owen *et al.*, 2013). For instance, marketers create online games that feature their brand mascots and release the games for free on their product websites so that young consumers might be unconsciously exposed to their brand materials while playing the game.

Such new marketing techniques that intentionally blur the line between advertisements and entertainment content likely make it more difficult for children and teens to understand the ultimate intent of these messages. Specifically, new types of commercial messages that appeal to young people with entertaining elements could increase their liking of them, which are revealed to be positively associated with children's positive brand attitude and purchase initiation (Van Reijmersdal et al., 2017). Moreover, research suggests that young consumers are vulnerable to these kinds of messages because they lack the skills and the experience to adequately understand the nature of these messages (Kunkel et al., 2004; Panic et al., 2013; Rozendaal, Buijzen, & Valkenburg, 2010). In particular, research has shown that even teens struggle to understand online marketing tactics with evidence suggesting that adult levels of persuasion understanding do not emerge until 16 years of age and comprehension of commercial data collection practices does not reach adult levels of comprehension until the age of 20 (Zarouali *et al.*, 2020).

The last issue of note with these online marketing tactics targeting children is that there is evidence that online marketers are not careful stewards of children's best interests and this has been true for as long as the internet has been available in children's homes (Cai *et al.*, 2003). For example, a study by Dahl and colleagues (2009) found that online marketers were more likely to engage in questionable behavior in these settings particularly in comparison to what they were doing in more traditional formats. Another study by Cai and Zhao (2013) found that of the 117 websites that were examined in their study, less than half of the websites complied with federal laws protecting children and their privacy.

These issues extend to other new media domains as well. For example, when Google established the app YouTube Kids, they immediately came under fire for both the content that was available on the site (i.e., heavily commercialized videos) and the advertising practices they used to target children (Hamedy, 2015). Similar issues were found in a study of mobile applications that were used by children between the ages of 1 to 5-years-old (Meyer *et al.*, 2019). In this content analysis of 135 applications, the authors found that nearly all of these apps targeted children with advertising messages and many of them used tactics that were ethically questionable (e.g., 30% sought in-app purchases from users).

Types of New Online Advertising

Marketers have used five primary approaches to maximize their exposure to young targets in new online commercial environments. They have embedded advertising messages within the application, on websites, in digital games, via online videos, and through search engines.

Online Applications

Marketers often try to reach out to their younger consumers through advertising in online application. For example, in order for a child to play, watch, and/or interact with an application, the child needs to watch an advertisement from a sponsor. Typically, with *advertising in application,* the child needs to watch at least the first few seconds of an advertisement and skip it or click a close icon to remove the advertising message from the screen so they can continue with the application. Research recently revealed that 95% of 135 children's mobile apps contained at least one type of advertising within each application (Meyer *et al.*, 2019).

Website advertising

Marketers also employ similar tactics to reach young consumers when they browse the internet. One example of this is *pop-up advertising* (Eastin, Yang and Nathanson, 2006), this kind of advertising "pops up" automatically while surfing the web and can be removed or hidden by the user. Relatedly, there is *online banner advertising*. Unlike pop-up advertising, *banner advertising* is fixed within the website. For example, if surfing on Nickelodeon or Cartoon Network, an advertisement might be displayed at the top of the page and it may include video and sound. Parents often believe that this particular type of advertising is not effective with children (Spiteri Cornish, 2014). According to Spiteri Cornish (2014), this underestimation stems from parent beliefs that such online advertisements are "annoying" and they believe that their children would also view these same advertisements as irritating.

Digital Games

There are also online advertising techniques which utilize online games and videos to deliver persuasive messages (see Terlutter and Capella, 2013). First, marketers employ gaming context to advertise their products. They might develop their own game so that the game players are directly exposed to their logos and products as part of gameplay, known as *advergames*. To

illustrate, on Kellogg's website, there are many games for children that use the brand mascots as the main characters in the games. In one game, for example, a player wins the game by playing as the brand mascot Tony the Tiger and earning more “frosted flakes”. Companies also can pay the developers of well-known video games to include their products and logos in the games which is known as *in-game advertising*. For example, in the FIFA soccer game, the advertising boards that surround the soccer field can be filled with real brand logos of companies or featured on player jerseys in the game.

Online Videos

The blurred line between advertising messages and the entertainment content is also found in online video advertising. The first strategy of note is *product placement*. Marketers pay influencers (e.g., YouTubers) who have many subscribers/followers of their channels to display the brand's products in their online videos (Gerhards, 2019). For example, a vlogger can conspicuously feature a particular beverage in her video or even drink the beverage. In the case of product placement, the vlogger does not mention the product or explicitly focus attention on it, it is just routinely visible in the video.

The second strategy is known as *product integration* (Schwemmer and Ziewiecki, 2018). Like product placement, marketers pay vloggers to display their products in their videos. However, with this strategy, vloggers will focus on the use of the sponsored product as a prominent theme of the video. For example, a vlogger might share her meal preparation for a week. Within the video, she will use a sponsored recipe app to prepare her meals. In this way, although the main theme of the video seems to share her meal preparation, there is consistent promotion of the recipe app in the video.

The third one is known as *affiliated links*. This strategy refers to a partnership between a vlogger and a company. Specifically, if viewers click the link that a vlogger shares within a video, which directs them to a website where they can purchase the product that the vlogger uses in the video, the vlogger gets commission from the company. The last online video advertising strategy is called *unboxing*. These are videos that feature vloggers opening or “unboxing” newly purchased products and sharing their reviews of the products to their audience. In many cases, marketers pay for the products to be featured in famous YouTubers’ videos (Daems, De Pelsmacker and Moons, 2019). The most common and popular product that is featured in unboxing videos for children are toys (Craig and Cunningham, 2017).

Online Behaviors

Marketers are not only taking seeking to capitalize on the connections between vloggers and viewers but also tracking individual's personal online behaviors (e.g., browsing history) to increase the exposure of their brands to potential customers (Boerman, Kruikemeier and Zuiderveen Borgesius, 2017). The strategy exploits individuals' browsing history to target ads directly to consumers (i.e., *online behavioral advertising*). For example, if someone looks at a pair of shoes they might want to purchase on Amazon, the similar shoe brands or similar type of shoes might appear on their Facebook accounts. Thus, marketers use personal online behaviors to maximize the chance to sell products to potential customers.

Search Engines

The final online advertising category is known as *search engine marketing* (Montgomery and Chester, 2009). When a web user searches for camping equipment, for example, the person will see advertisements of camping-related products next to or on top of the actual results of the search. Although children regularly visit search engine websites and are familiar with using

them, research suggests that children younger than 12 years tend to have difficulties in distinguishing advertisements from non-advertisement on search engine websites (Li *et al.*, 2014).

Parents, Online Advertising, and Negotiating Child Exposure

Considering these different types of advertising tactics and children's potential difficulty in handling these kinds of tactics, parents' active involvement in helping to build the foundation of advertising knowledge and literacy for their children is crucial. However, what this requires is that parents are knowledgeable about the tactics that are being used to reach their children. In other words, parents cannot help their children negotiate this marketing landscape if they are not well-versed in how it works. For example, Newman and Oates (2014) interviewed sixteen parents in the United Kingdom and found that they were generally unaware of marketing approaches in online settings. Yet we know very little about how familiar parents are with these kinds of appeals with more representative samples of the broader population as there have been few studies that have explored parents' awareness of new online advertising techniques.

One of the few studies that has looked at this issue was a doctoral dissertation that sampled 340 Belgian parents with children between the ages of 6 to 18 years (Daems, 2018). This study explored what parents think about new online advertising techniques after explaining to them what kinds of advertising techniques are currently available for their children in online settings. From that study, Daems found that, on average, parents believed their children would understand these new tactics when children were older than 13 years of age. They also reported that it is ethically appropriate to target children with these new types of online advertising when they are older than 13. More importantly, the study found that parents were more likely to

engage in mediational practices if advertising messages and media devices were in traditional formats (e.g., commercials on television) than if they were online.

Daems' study (2018), however, provided a list of the new online advertising techniques to parents before asking them what they think about the techniques. Therefore, the study could not answer the question of how much parents were familiar with the new types of advertising formats prior to the study. Because parents' knowledge about these new advertising tactics and their attitudes towards them are crucial in terms of shaping their conversations with children, understanding what parents know about and how they think about these new online advertising techniques is important. In addition, Daems' study (2018) was conducted with a Belgian sample. No study yet has explored what American parents know and think about the new online advertising techniques. This matters because previous research has shown that parents and children in the United States behave significantly different than parents and children in similar European countries regarding consumer attitudes, socialization, and behavior. For example, according to Lapierre and Rozendaal (2018), American parents are more likely to discuss consumer issues with their children and engage their children in shopping when compared to Dutch parents. Thus, working with a diverse sample of American parents, the authors offer the following research questions:

> RQ1: How familiar are parents in the United States with specific advertising practices on new media and the internet?
>
> RQ2: Are parents in the United States able to identify specific advertising practices on new media and the internet?
>
> RQ3: At what age do parents in the United States believe that their child is able to understand specific online and new media advertising approaches?
>
> RQ4: At what age do parents in the United States believe that it is ethical/appropriate to use specific online and new media advertising approaches with children?

Methods

Recruitment

After receiving approval from the authors' Institutional Review Board, the authors obtained participants via a sample recruited by Qualtrics. Participants were compensated for their participation. To participate, participants had to be the parent of at least one child between the ages of 5 to 14. To ensure that the sample was socio-economically diverse, the authors set a quota for participant education with half of the participants having an associate's degree or above and the other half having some college or below. Moreover, to ensure that the sample had an even breakdown for parent gender (approximately 50/50 for mothers and fathers) the authors set a quota for parent gender. However, because of an error with panel recruitment, there were more fathers with male children than female children. To balance this out, more fathers with female children were recruited to be part of the sample.

In the initial round of data collection, a total of 1,793 potential participants were approached to take part in the survey. Of that original number 266 people did not have children, 183 did not have children in the age range that the authors were interested in, and 85 did not consent to participate after reading the consent form which left 1,259 potential participants who were eligible to participate and consented. To ensure data quality, two methods were used to screen out participants who were not paying attention or were moving through the survey too quickly. Of these, 830 did not pass an early attention check question and 9 moved through too quickly. This left 420 total participants in the sample and with the extra parents mentioned above (80 parents), we had 500 parents in the final sample.

Participants

Of the parents who completed the study, 41.2% (N = 206) were women (1 reported that they were transgender and 3 did not answer). The mean age of parents in the sample was 38.44 years (SD = 8.60). Participants in the study racially/ethnically identified as white (n = 375, 75%), African American (n = 51, 10.2%), Asian/Pacific Islander (n = 19, 3.8%), Latino/a (n = 20, 4%), Native American (n = 8, 1.6%), “other” (n = 2, 0.4%), and multi-racial (n = 25, 5%). The educational breakdown for participants in the sample indicated that 38% (n = 190) had a high school degree or less, 26.8% (n = 134) had some college or a vocational degree, 19.8% (n = 99) had a bachelor’s degree, and 15.4% (n = 77) had a graduate degree.

Participants were asked to keep one of their children, in the age range between 5 to 14 years old, in mind when answering certain questions. If the parent reported that they had more than one child in this age range, the parent was asked to select the child with the next approaching birthday. The average age of children selected was 9.99 years (SD =2.81) and 50.2% (N = 251) of children were female (one parent preferred not to answer regarding their child’s gender). Children in the study were racially identified as white (n = 357, 71.4%), African American (n = 49, 9.8%), Asian/Pacific Islander (n = 15, 3%), Latino/a (n = 15, 3%), Native American (n = 5, 1%), “other” or prefer not to answer (n = 7, 1.4%), and multi-racial (n = 52, 10.4%).

[Insert Table one here]

Measures

Using a procedure outlined by Daems and colleagues (Daems, De Pelsmacker and Moons, 2019), we presented parents with vignettes asking about various online marketing tactics that children are likely to encounter when surfing the internet (see Table 1). Of these earlier vignettes, five were taken verbatim from Daems et al, two were slightly modified, and four were

created specifically for this study based on current literature (De Veirman, Hudders and Nelson, 2019; Meyer *et al.*, 2019). Moreover, in piloting this measure, the feedback the authors received was that asking about all eleven vignettes contributed to participant fatigue; as such, each of the participants in the main study were randomly assigned to answer questions about nine of these eleven vignettes.

Familiarity with online marketing tactic. After reading the vignette, parents were asked how familiar they were with this particular tactic (i.e., "How familiar are you with this kind of child-targeted advertising/marketing?"). They answered with a scale from 1 = *not familiar at all* to 5 = *extremely familiar*.

Knowledge of online marketing tactic. Parents were then asked if they knew what the marketing tactic they had just read about was named. For each vignette, parents were presented with five answer options: the correct answer, an "I don't know" option, two responses of other marketing tactics, and one that was completely made up by the authors (e.g., product fluidity, emblem promotion, top-down engagement, synergistic optimization).

Age at which child understands online marketing tactic. Parents were asked at what age a child should be able to understand the particular advertising tactic after reading each vignette (i.e., "Based on your judgment as a parent, at what age do you think children are *generally* able to understand the advertising format described above?"). Parents were able to answer this on a sliding scale with answers ranging from 5-years-of-age to 16-years-of-age.

Ethical appropriateness of marketing tactic. Parents were then asked how old a child needed to be before it was ethical to target children with each of these tactics (i.e., "At what age do you think it is ethically appropriate to use the advertising format described above to target children?"). Similar to the questions asking about children's age of understanding, parents were

able to answer this question on a sliding scale with answers ranging from 5 to 16-years-of-age. Parents were given the option to indicate that it was "never ethical" to use a specific marketing tactic with children.

Results and Discussion

As shown in table two, the means and standard deviations are presented for parent familiarity with each advertising technique, the age at which the parent thinks a child can understand a given advertising/marketing tactic, and the age at which the parent thinks that the particular technique is ethical to use with children. We also report the percent of parents who got the knowledge question correct for each advertising technique and the percent of parents who said that a specific tactic was never ethical to use with children. Lastly, we have included the average age that parents thought it was ethical to target children with the parents who reported that it was never ethical included as 17 years of age.

[Insert Table two here]

General Findings

Regarding parent knowledge about these strategies, the results of this study revealed that parents were only moderately familiar with most of the strategies they were asked about and they also struggled to identify many of these tactics by name when asked as only one of them (popup advertising) was correctly identified more than half of the time. When looking at parent judgments about when children are capable of understanding these advertising tactics, American parents reported that their children would be capable of doing so between the ages of 11 to 12 years of age and this general set of findings extended to when parents thought it was ethical to use these tactics with children. However, a large contingent of parents (approximately 20%) believe that the tactics described to them were never ethical. In the following paragraphs, the

authors will discuss these findings in greater depth and what they mean for children, parents, and the online/new media marketing industry.

Parent Knowledge and Familiarity with Online Marketing Tactics

Our first set of findings centers on parent knowledge and familiarity with these eleven selected online advertising tactics. When looking at parents' familiarity with these tactics, they consistently reported that they were only moderately familiar with them. In fact, the range of mean scores on this question across the eleven tactics parents were asked about was from 2.95 to 3.49. These findings suggest that parents are, in general, not fully literate when it comes to how their children are targeted by advertisers in online and new media settings. Moreover, there were only two advertising tactics that parents, on average, reported being less than moderately familiar with- advergaming (i.e., embedding advertisements in online games) and product integration (i.e., online personalities talking about brands without necessarily discussing their connection to the brand).

The fact that parents were least familiar with these two particular tactics is interesting as these two kinds of marketing approaches are likely among the least overt types of advertising that are directed at children. For example, for product integration, advertised products are promoted to young audiences without it being made clear that the online personalities are deliberately promoting a product/service (Schwemmer and Ziewiecki, 2018). Considering that young people generally struggle to understand the purpose of even overt marketing appeals like television advertisements (Lapierre, 2015) and have an even harder time with less overt tactics (van Reijmersdal *et al.*, 2017; Zarouali *et al.*, 2020), parents not being as familiar with this tactic means that they are likely less able to intervene when their children are exposed to these messages online.

When looking at parents' ability to identify these tactics by name, we also found that they seemed to struggle to correctly do so. As noted above, there was only one tactic that parents were able to identify more than half of the time- pop-up advertising with 52.6% of parents identifying this tactic correctly. It should be noted, however, that many of these parents were likely helped by the fact that the vignette describing this tactic included the phrase "pops up", so that may have given parents some advantage when identifying pop-up advertising. Even with that advantage, parents only being able to identify this approximately half of the time, still seems quite low.

We also found that with certain advertising tactics, parents' ability to correctly identify them were at chance levels (i.e., they selected the tactic at the same rate that we would expect if they were randomly selecting one of the five answers). Specifically, parents correctly identified advertising in applications (i.e., advertisements embedded in phone/tablet applications like games) 24% of the time and product integration only 20.1% of the time. Regarding the latter, this should not be entirely surprising as parents where least familiar with this tactic than all others. For the former, it may be the case that parents were vaguely aware of the tactic when described to them, but they then struggled to affix a name to this marketing tactic.

When looking at these results more broadly, what explanation is there for parent's relative inability to correctly identify these tactics and their lack of familiarity with them? To wit, the grand mean for familiarity across all tactics was 3.25 (out of 5) while the grand mean for percent correct on identifying advertising tactics was 35.3%, which seems low for a sample of adults who are almost certainly familiar with the internet and capable of negotiating online spaces (e.g., these participants had all agreed to take surveys for an online research firm). One possibility is that the adults in this study struggle with this type of digital and advertising literacy (see Newman and Oates, 2014). For example, a study by the Pew Research Center (2019) found

that over half of American adults in their sample struggled to answer questions correctly about digital literacy. In particular, the questions they tended to perform the worst on were centered on cybersecurity and privacy. Consequently, our results may be capturing this same dynamic and that our parents are just less aware of this corner of the digital world.

A second reason, which is not mutually exclusive from the first reason, is that parents may not be entirely motivated to learn about the advertising tactics that their children are likely to encounter online or when using newer media. Specifically, with a range of other issues to deal with regarding their children (e.g., managing school and extracurricular activities, daily care routines) and their own lives to manage (e.g., work-life balance), this may be very low on the list of things that parents feel that they need to attend to or learn about. Moreover, even within online and mobile media spaces, exposure to advertising messages in these environments could be perceived as substantially less harmful for their children when compared to other problematic issues that could happen online such as cyberbullying, exposure to inappropriate sexual or violent content, and/or interactions with malign actors (e.g., pedophiles).

Researchers and practitioners often ask a lot of parents when suggesting how they could manage their child's media use/environment (Lapierre, Piotrowski and Linebarger, 2014) and parents report that it is often difficult to enact these recommendations (Brown and Smolenaers, 2018). Moreover, a study by Lapierre and Bickham (2017), which looked at media and parenting differences between parents with a background studying children and media and lay parents (i.e., parents without any formal background studying children and media), revealed that lay parents were generally less restrictive about their child's media use (in terms of time spent with media) and had less negative beliefs about media. As such, these findings may just reflect a general disinterest on the part of parents to understand this part of their child's media environment.

Attitudes and Ethical Judgements about Children's Understanding of Advertising Tactics

Our results for parents' judgements of when children (a) could understand specific tactics and (b) it was ethical to target children with these marketing appeals yielded interesting results. Across marketing tactics, parents reported that by around the age of 11, children were likely able to understand the commercial nature of these appeals and that it was ethical to use these marketing tactics on children. These findings are intriguing for a couple of reasons.

First, there is consistent evidence that children and teens struggle to understand the intended purpose of advertising (Kunkel *et al.*, 2004). In fact, research by Rozendaal and colleagues (Rozendaal, Buijzen and Valkenburg, 2010) compared the advertising literacy of children to adults in the Netherlands, and found that even by the age of 12, children did not match adults in their understanding of advertising. Moreover, in this study by Rozendaal and her colleagues, the authors' focus was on television advertising which is likely much easier to understand than what young people are likely to face online (An, Jin and Park, 2014; van Reijmersdal *et al.*, 2017). As such, parents in this sample are likely overestimating their child's ability to understand that the messages they are seeing in online spaces are intended to encourage commercial behavior.

Second, these results are quite different from what Daems' study (Daems, 2018) of Belgian parents found when those parents were asked similar questions. In that study, Daems reported that parents believed their children could understand similar tactics by an average of 13.01 years of age and it was ethical to use these tactics by 13.66 years of age. This is approximately two years later than what was found in the current study. Yet, these differences in the findings do seem to be in-line with recent research that compared consumer attitudes and beliefs for parents in the United States and the Netherlands (Lapierre and Rozendaal, 2018). In

that study, the authors found that parents from the United States reported discussing consumer issues more with their children than Dutch parents did, involved their children in shopping more than Dutch parents, and reported that their children were significantly more focused on the social aspects of consumption (i.e., how much their child connected purchasing decisions to social standing; Rose, 1995).

With these previous findings in mind, it may be the case that families in the United States are more optimistic about their child's consumer savviness in online spaces because their children are raised in a more saturated consumer environment. That noted, in the Lapierre and Rozendaal study, the authors also found that children in the United States asked for more consumer goods and argued more with their parents about purchasing decisions compared to participants in the Dutch sample, which suggests that this self-reported savviness does not necessarily translate into protective behavior. As such, the parents in the current study may be more confident that their children can successfully negotiate the consumer environment than they ought to be.

Lastly, it is worthwhile to note that a sizable minority of parents in this sample reported that it was never ethical to target children with these various marketing tactics. Specifically, across marketing tactics, approximately one-fifth to one-quarter of parents reported that it was never ethical to use the tactic they are asked about. What this suggests is that for a certain group of parents, there is a healthy level of skepticism about the appropriateness of marketing to children using the tactics described in the current study. In addition, when we included these responses under the assumption that they would have considered the tactics to be ethical for children/teens 17 years or older, the average age increased to 12.6 years old (an average increase of 1.25 years) which is a bit closer to what Daems found (13.66 years) in her study (Daems,

2018). Although, in the Daems study, they did allow parents to report that it was never ethical to use a specific tactic with 6.7% of parents choosing this option. Moreover, we are assuming in our study that parents would have agreed that it is ethical to target children/teens when the child was at least 17, but that is a conservative assumption as it could be the case that these parents view these tactics as inappropriate for children or adults at any age.

Implications

Considering these findings, what are some of the potential implications? Specifically, our results indicate that parents are not very aware of the marketing tactics that are used to reach children in online and mobile settings. With parents playing an important role in helping their children learn about consumer issues (Buijzen, 2014), this lack of parental awareness is concerning. One way to address this issue would be to target educational interventions at parents to help improve their advertising literacy in this domain. However, as noted above, with parents having to focus on any number of other issues related to their child's health and welfare, it may well be the case that these educational interventions will face significant hurdles in reaching parents.

Another concern with this kind of neoliberal approach (see Craven, 2014) is that it essentially pits parents against marketers where the marketing/advertising industry has tremendous advantages over parents (e.g., availability of cutting-edge market research, financial resources) and does not have the best record of acting responsibly when targeting children online (e.g., Cai and Zhao, 2013; Meyer *et al.*, 2019). As such, one possible solution would be for governments to play a more active role by ensuring that marketing to children in online/mobile settings is easier for parents and children to identify.

Limitations and Future Research

There are two limitations with the present study that ought to be addressed. First, although the sample for this study was comprised of parents from across the United States and used purposeful sampling to make sure participants were educationally diverse, it was not a true representative sample of American parents. As such, while the findings reported in this study do come from a diverse set of parents, we cannot be certain that these findings would be replicated with a truly representative sample of parents in the United States.

The second possible limitation with the current study was that we oversampled fathers in the data collection. Because of an error made by the company that oversaw providing the sample, the original sample included more fathers reporting on their sons than fathers who were reporting on their daughters. If the sampling had originally been done correctly, there would have been an equal number of fathers reporting on their sons as fathers reporting on their daughters. However, due to this error, the sample did not have the gender balance the authors desired. Consequently, the results of this study overreport on the familiarity, knowledge, and attitudes of male parents about these advertising tactics. That noted, having an oversampling of fathers could be seen as a strength since most studies looking at child-focused advertising and parents has traditionally focused on mothers (although this is likely for good reason as mothers tend to be more involved in socializing their children as consumers; see Buijzen and Valkenburg, 2008; Krcmar *et al.*, 2017).

Conclusion

The present study is the first known study that has explored American parents' familiarity, beliefs, and attitudes about new online advertising strategies that may target children. Our findings suggest that American parents reported being moderately familiar with the majority of these advertising strategies. Interestingly, although parents in this study believed that their child

could understand and recognize advertising intent in new online advertising techniques by relatively younger age, a sizable portion of parents reported that the new advertising techniques employed in online settings are never ethical to use with their children. Future studies could investigate how parents' knowledge about new advertising techniques, their beliefs on their child's ability to interpret advertising intent, and their ethical attitudes towards these advertising techniques are related to their approach in shaping conversations with their children about advertising and monitoring of their child's exposure to these persuasive tactics.

References

An, S., Jin, H. S. and Park, E. H. (2014) ‘Children’s advertising literacy for advergames: Perception of the game as advertising’, *Journal of Advertising*, 43(1), pp. 63–72. doi: 10.1080/00913367.2013.795123.

Boerman, S. C., Kruikemeier, S. and Zuiderveen Borgesius, F. J. (2017) ‘Online Behavioral Advertising: A Literature Review and Research Agenda’, *Journal of Advertising*, 46(3), pp. 363–376. doi: 10.1080/00913367.2017.1339368.

Brown, A. and Smolenaers, E. (2018) ‘Parents’ Interpretations of Screen Time Recommendations for Children Younger Than 2 Years’, *Journal of Family Issues*, 39(2), pp. 406–429. doi: 10.1177/0192513X16646595.

Buijzen, M. (2014) ‘The family’s role in children’s interpretation of advertising’, in Blades, M. et al. (eds) *Advertising to Children*. London, UK: Palgrave Macmillan, pp. 137–157. doi: 10.1057/9781137313256_8.

Buijzen, M. and Valkenburg, P. M. (2008) ‘Observing purchase-related parent-child communication in retail environments: A developmental and socialization perspective’, *Human Communication Research*, 34, pp. 50–69. doi: 10.1111/j.1468-2958.2007.00313.x.

Cai, X. *et al.* (2003) ‘Children’s Website Adherence to the FTC’s Online Privacy Protection Rule’, *Journal of Applied Communication Research*, 31(4), pp. 346–362. doi: 10.1080/1369681032000132591.

Cai, X. and Zhao, X. (2013) ‘Online advertising on popular children’s websites: Structural features and privacy issues’, *Computers in Human Behavior*, 29(4), pp. 1510–1518. doi: 10.1016/j.chb.2013.01.013.

Calvert, S. L. (2008) ‘Children as consumers: Advertising and marketing’, *Future of Children*.

Princeton University, 18(1), pp. 205–234. doi: 10.1353/foc.0.0001.

Craig, D. and Cunningham, S. (2017) 'Toy unboxing: Living in a(n unregulated) material world', *Media International Australia*, 163(1), pp. 77–86. doi: 10.1177/1329878X17693700.

Craven, C. (2014) 'Foreword: Countervisions', in Giles, M. V. (ed.) *Mothering in the Age of Neoliberalism*. Bradford, ON: Demeter Press, pp. ix–xii. doi: 10.2307/j.ctt1rrd7zz.3.

Daems, K. (2018) *Online advertising to children & teenagers: Perspectives of youngsters, advertisers and parents*, *Faculteit Toegepaste Economische Wetenschappen*. University of Antwerp.

Daems, K., De Pelsmacker, P. and Moons, I. (2019) 'Advertisers' perceptions regarding the ethical appropriateness of new advertising formats aimed at minors', *Journal of Marketing Communications*, 25(4), pp. 438–456. doi: 10.1080/13527266.2017.1409250.

Dahl, S., Eagle, L. and Báez, C. (2009) 'Analyzing advergames: Active diversions or actually deception. An exploratory study of online advergames content', *Young Consumers*, 10(1), pp. 46–59. doi: 10.1108/17473610910940783.

Eastin, M. S., Yang, M. S. and Nathanson, A. I. (2006) 'Children of the net: An empirical exploration into the evaluation of Internet content', *Journal of Broadcasting and Electronic Media*, 50(2), pp. 211–230. doi: 10.1207/s15506878jobem5002_3.

Gerhards, C. (2019) 'Product placement on YouTube: An explorative study on YouTube creators' experiences with advertisers', *Convergence*, 25(3), pp. 516–533. doi: 10.1177/1354856517736977.

Gunter, B. *et al.* (2014) 'Introduction', in Blades, M. et al. (eds) *Advertising to Children*. London, UK: Palgrave Macmillan, pp. 1–16. doi: 10.1057/9781137313256_1.

Hamedy, S. (2015) 'YouTube Kids app exposes children to too many ads, some groups say', *Los*

Angeles Times, 6 April. Available at: https://www.latimes.com/entertainment/envelope/cotown/la-et-ct-youtube-kids-app-20150407-story.html#page=1.

De Keyzer, F., Dens, N. and De Pelsmacker, P. (2015) ‘Is this for me? How Consumers Respond to Personalized Advertising on Social Network Sites’, *Journal of Interactive Advertising*, 15(2), pp. 124–134. doi: 10.1080/15252019.2015.1082450.

Krcmar, M. *et al.* (2017) ‘Observing parent-child purchase related interactions in US-based retail environments: replication and extension’, *Journal of Children and Media*, 11(3), pp. 261–277. doi: 10.1080/17482798.2017.1303524.

Kunkel, D. *et al.* (2004) ‘Psychological issues in the increasing commercialization of childhood’, in *Report of the APA Task Force on Advertising and Children*. Washington, DC: American Psychological Association, pp. 20–54. Available at: http://www.apa.org/releases/childrenads_implications.pdf.

Lapierre, M. A. (2015) ‘Development and Persuasion Understanding: Predicting Knowledge of Persuasion/Selling Intent From Children’s Theory of Mind’, *Journal of Communication*, 65(3), pp. 423–442. doi: 10.1111/jcom.12155.

Lapierre, M. A. *et al.* (2020) ‘Take a deep breath: The effects of television exposure and family communication on family shopping-related stress’, *International Journal of Advertising*. doi: 10.1080/02650487.2020.1820205.

Lapierre, M. A. and Bickham, D. S. (2017) ‘Trust Us, We’re Experts: How Children and Media Researchers Use Media with their Own Children’, in *International Communication Association*. San Diego, CA.

Lapierre, M. A., Piotrowski, J. T. and Linebarger, D. L. (2014) ‘Assessing the relationship

between pediatric media guidance and media use in american families', *Clinical Pediatrics*, 53(12), pp. 1166–1173. doi: 10.1177/0009922814540038.

Lapierre, M. A. and Rozendaal, E. (2018) 'Cross-national differences in consumer socialization, development, and behavior: a comparison of children in the United States and the Netherlands', *Journal of Children and Media*, 12(4), pp. 388–405. doi: 10.1080/17482798.2018.1474481.

Li, S. *et al.* (2014) 'Young children's ability to identify advertisements on television, web pages and search engine web pages', in Blades, M. et al. (eds) *Advertising to Children: New Directions, New Media*. London, UK: Palgrave Macmillan, pp. 199–217. doi: 10.1057/9781137313256_11.

McNeal, J. U. (2007) *On becoming a consumer: The development of consumer behavior patterns in childhood*. 1st edn. New York, NY: Butterworth-Heinemann.

Meyer, M. *et al.* (2019) 'Advertising in Young Children's Apps: A Content Analysis', *Journal of Developmental and Behavioral Pediatrics*, 40(1), pp. 32–39. doi: 10.1097/DBP.0000000000000622.

Montgomery, K. C. and Chester, J. (2009) 'Interactive Food and Beverage Marketing: Targeting Adolescents in the Digital Age', *Journal of Adolescent Health*, 45(3), pp. S18–S29. doi: 10.1016/j.jadohealth.2009.04.006.

Newman, N. and Oates, C. J. (2014) 'Parental mediation of food marketing communications aimed at children', *International Journal of Advertising*, 33(3), pp. 579–598. doi: 10.2501/IJA-33-3-579-598.

Owen, L. *et al.* (2013) 'Is children's understanding of nontraditional advertising comparable to their understanding of television advertising?', *Journal of Public Policy and Marketing*, 32(2), pp. 195–206. doi: 10.1509/jppm.09.003.

Panic, K., Cauberghe, V. and 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), pp. 264–273. doi: 10.1080/00913367.2013.774605.

Pew Research Center (2019) *Americans and digital knowledge*. Washington DC. Available at: https://www.pewresearch.org/internet/wp-content/uploads/sites/9/2019/10/PI_2019.10.09_Digital-Knowledge_FINAL.pdf.

van Reijmersdal, E. A. *et al.* (2017) 'Processes and effects of targeted online advertising among children', *International Journal of Advertising*, 36(3), pp. 396–414. doi: 10.1080/02650487.2016.1196904.

Rideout, V. (2017) *The Common Sense Census: Media Use By Kids Age Zero To Eight*, *Common Sense Media*. San Francisco, CA. doi: 10.1163/9789004250901_013.

Rideout, V. and Robb, M. B. (2019) *The Common Sense census: Media use by tweens and teens, 2019*. San Francisco, CA.

Rose, G. M. (1995) *Parental style, consumer socialization, and developmental timetables in the United States and Japan.* Eugene, OR.

Rozendaal, E. *et al.* (2011) 'Reconsidering Advertising Literacy as a Defense Against Advertising Effects', *Media Psychology*, 14(4), pp. 333–354. doi: 10.1080/15213269.2011.620540.

Rozendaal, E., Buijzen, M. and Valkenburg, P. (2010) 'Comparing Children's and Adults' Cognitive Advertising Competences in the Netherlands', *Journal of Children and Media*, 4(1), pp. 77–89. doi: 10.1080/17482790903407333.

Schwemmer, C. and Ziewiecki, S. (2018) 'Social Media Sellout: The Increasing Role of Product Promotion on YouTube', *Social Media + Society*, 4(3). doi: 10.1177/2056305118786720.

Spiteri Cornish, L. (2014) '"Mum, can I play on the internet?" Parents' understanding, perception, and responses to online advertising designed for children', *International Journal of Advertising*, 33(3), pp. 437–473. doi: 10.2501/IJA-33-3-437-473.

Terlutter, R. and Capella, M. L. (2013) 'The gamification of advertising: Analysis and research directions of in-game advertising, advergames, and advertising in social network games', *Journal of Advertising*, 42(2–3), pp. 95–112. doi: 10.1080/00913367.2013.774610.

De Veirman, M., Hudders, L. and Nelson, M. R. (2019) 'What Is Influencer Marketing and How Does It Target Children? A Review and Direction for Future Research', *Frontiers in Psychology*, 10. doi: 10.3389/fpsyg.2019.02685.

Wilcox, B. L. *et al.* (2004) *Report of the APA Task Force on Advertising and Children*, *American Psychological Association*. Washington, DC. Available at: https://www.apa.org/pi/families/resources/advertising-children.pdf.

Zarouali, B. *et al.* (2020) 'Adolescents' advertising literacy and privacy protection strategies in the context of targeted advertising on social networking sites: implications for regulation', *Young Consumers*, 21(3), pp. 351–367. doi: 10.1108/YC-04-2020-1122.

Table 1: Marketing Tactics and Vignette Text for Each Tactic

Type of Internet Advertising/Marketing Technique	*Vignette Text*	*Comparison to Daems et al (2019)*
In-game advertising	In a popular racing game, players can choose from several existing brands of cars, and billboards advertising these car brands appear along the roadside. The car brands have paid the developers of the game to have their brands used in the racing game.	Taken verbatim from original study.
Search engine marketing	Lucas would like to know more about the rules of tennis. To this end, he types 'tennis' as a search term in Google. A large number of advertisements for sports brands related to the search term appear in a sidebar next to the actual results.	Taken verbatim from original study.
Online behavioral adverting	Tom is searching the Internet for camping equipment for his youth movement's annual camp. When he subsequently looks through Facebook, the News Feed contains advertisements related to camping equipment.	Taken verbatim from original study.
Advergames	To promote the newest products in its line, a brand has developed a game that can be played on the brand's website. While playing this game, the game elements are related to the product and the brand, and players attempt to capture as many brand logos as they can.	Taken verbatim from original study.

Type of Internet Advertising/Marketing Technique	*Vignette Text*	*Comparison to Daems et al (2019)*
Product placement	In a user-generated online video, a particular brand of soft drink is consumed often, and the logo is brought into focus. The brand has paid for the soft drink to be used in the online video.	Adapted from original study.
Product integration	A video on YouTube shows a child and a father singing the soundtrack of the latest Disney movie together. Disney paid the child's father to post the video online for the purpose of advertising. The Disney logo does not appear anywhere in the music clip, and there is no statement that the video is part of an advertising campaign.	Adapted from original study.
Affiliated links	A video on YouTube shows a host playing with a toy, and the host introduces the link within the video where the viewers can purchase the same product. When the viewers click on the link and/or purchase the products through the link, the maker of the toy will pay a commission to the host.	Not in the original Daems et al study.
Unboxing	In a YouTube video, the host shows a newly purchased product and shares the process of opening the product and its features and components to the viewers. While the host is opening the product, he or she will narrate each action that he or she would take to explain the features and components of the product.	Not in the original Daems et al study.

Type of Internet Advertising/Marketing Technique	*Vignette Text*	*Comparison to Daems et al (2019)*
Advertising in applications	Lori has her own tablet. Every day, she plays a music quiz that is installed as an application on her tablet. The music quiz application was a free download, with advertising appearing between the questions. A large amount of the advertising consists of ads for the latest CD from her favorite group.	Taken verbatim from original study.
Online banner advertising	Sarah is looking at her favorite website to read about a musical artist that she really likes. As she reads, there is an advertisement for a movie that will soon be released into theaters. The advertisement shows a brief scene of the movie.	Not in the original Daems et al study.
Pop-up advertising	When Laura goes to get information about her favorite cereal, a message box pops up with the advertisement of a popular fruit juice brand. Laura can choose to close the advertising messages if she wishes to and once it was shown to her, but it pops up automatically when she accesses the website.	Not in the original Daems et al study.

Table 2: Descriptive Statistics for all Marketing/Advertising Tactics

Advertising/Marketing Technique	N	Familiarity M (SD)	% Identifying correctly	Age when children understand M(SD)	Age when ethical to target children M(SD)	% Never ethical	Age with never ethical included as 17yo M(SD)
In-game advertising	384	3.20 (1.23)	44.8	11.27 (2.78)	11.19 (2.92)	20.6	12.44 (3.50)
Search engine marketing	405	3.32 (1.21)	44.4	11.51 (2.77)	11.67 (2.75)	23.8	12.93 (3.31)
Online behavioral adverting	390	3.46 (1.23)	35.4	11.64 (2.84)	11.61 (2.89)	26.2	13.02 (3.43)
Advergames	395	2.99 (1.34)	33.2	11.36 (2.88)	11.30 (2.93)	20.8	12.49 (3.49)
Product placement	403	3.27 (1.22)	31.0	11.30 (2.84)	11.47 (2.91)	21.6	12.66 (3.44)
Product integration	403	2.95 (1.33)	20.1	11.57 (2.93)	11.19 (2.97)	23.6	12.55 (3.58)
Affiliated links	404	3.27 (1.26)	36.1	11.41 (2.69)	11.48 (2.71)	25.5	12.89 (3.36)
Unboxing	412	3.49 (1.22)	37.6	11.12 (2.95)	11.23 (2.95)	20.4	12.41 (3.51)
Advertising in applications	418	3.21 (1.26)	24.0	11.13 (2.70)	11.28 (2.84)	23.0	12.59 (3.47)
Online banner advertising	402	3.28 (1.21)	30.3	11.35 (2.75)	11.28 (2.76)	20.4	12.45 (3.38)
Pop-up advertising	405	3.33 (1.19)	52.6	11.26 (2.85)	11.36 (2.83)	24.0	12.71 (3.45)