

Assessing the What is Beautiful is Good stereotype and the Influence of Moderately Attractive and Less attractive Advertising Models on Self-Perception, Ad Attitudes and Purchase Intentions of 8-13 year old Children.

Iris Vermeir · Dienneke Van de Sompel¹

The final publication is available at: <http://link.springer.com/article/10.1007%2Fs10603-013-9245-x>.

DOI 10.1007/s10603-013-9245-x.

¹ I. Vermeir and D. Van de Sompel
Ghent University, Tweekerkenstraat 1, 9000 Ghent, Belgium.
E-mail: iris.vermeir@Ugent.be; Dienneke.vandesompel@Ugent.be

Abstract

This paper investigates (1) whether the physical attractiveness stereotype applies to children, (2) whether children's self-perception is influenced by the attractiveness of an advertising model, (3) whether children's attitudes towards an ad and buying intentions for a non-beauty related product are influenced by the attractiveness of an advertising model, and (4) whether age affects (1), (2) and (3). Results of two experimental studies with respectively 8-9 year old ($N = 75$) and 12-13 year old ($N = 57$) girls and boys confirm the presence of the physical attractiveness stereotype in children. The presence of a moderately attractive (versus less attractive) model has a negative influence on general self-worth for 8-9 year old boys, but not for girls, nor for 12-13 year old children. Exposure to a moderately attractive (versus less attractive) model also has a positive influence on perceived physical appearance of 8-9 year old girls, but this effect does not occur for boys, nor for 12-13 year olds. The studies also show that moderately attractive (versus less attractive) models increase attitudes and buying intentions for 8-9 year olds, but not for 12-13 year old boys and girls.

Keywords: physical attractiveness, physical attractiveness stereotype, children, advertising effectiveness, self-perception

Introduction

From an early age, children develop the knowledge, skills, and values they will use in making purchase decisions now and in the future (John 1999). Children rely on parents and peers as well as on advertising to learn how to behave as a consumer. Advertising is an important consumer socialization agent in children's lives, since children are exposed to numerous advertising stimuli. Because they are relying on these advertising stimuli to perform consumer actions, more insights are needed on reactions to advertising of our youngest consumers (Bijmolt et al. 1998; Füg 2008; Martin 1997). These insights could help young consumers to make more solid consumer decisions and help practitioners and policy makers to get a better sense of the impact of specific advertising methods on children.

The number of advertising methods used to target children is numerous: marketers incorporate bright colours, humour, catchy music and attractive models in their campaigns to attract children. The latter advertising method is specifically a topic of discussion. Marketers use attractive models in advertising to stimulate advertising effectiveness, but common belief has it that children are negatively affected by watching idealized models in advertising.

Research using adult samples has shown that attractive (versus less attractive) models are rated more positive on other unrelated characteristics. This is explained by the physical attractiveness (PA) stereotype, also called the "what is beautiful is good" stereotype or the perception that physically attractive individuals possess more positive qualities and experience more satisfying life outcomes than do less attractive individuals (Dion et al. 1972). This PA stereotype leads people to believe that attractive people are, for example, also happier (Dion et al. 1972), more popular etc. The PA stereotype explains the positive evaluation of attractive movie characters and advertising models (Buunk and Dijkstra 2011; Caballero et al. 1989). In movies, attractiveness of a character is often strongly associated with moral goodness, higher levels of romantic activity, better life outcomes and higher centrality to the plot, and weakly related to higher intelligence and slightly lower levels of aggression for both male and female models (Smith et al. 1999).

People also agree more often with the opinion of attractive (versus less attractive) individuals (Kardes et al. 2011). Debevec et al. (1986) suggested that higher source attractiveness led to higher verbal and behavioural compliance. The same pattern is found in advertising research: attractive sources are more persuasive than less attractive sources (Baker

and Churchill 1977; Joseph 1982; Kahle and Homer 1985; Kamins 1989; Solomon et al. 1992).

Some studies already confirmed the presence of the PA stereotype in children samples (e.g., Bazzini et al. 2010; Dion 1973; Ruiz et al. 2005), stating that children also rate attractive people more positive on other characteristics. Much is unknown, however, about age differences in the presence of the PA stereotype and the effects of using attractive models in advertising to children of different ages (both on advertising effectiveness and on self-perceptions of children). Cognitive development theories show that children become more informed consumers with age and learn a number of essential skills that might help them to process advertising claims and make them less susceptible to the influence of advertising (Martin 1997; Rozendaal et al. 2009). With increasing age, children also focus more on important and relevant attribute information (Davidson 1991; Wartella et al. 1979), which could make them less susceptible to peripheral advertising elements (such as beautiful models). We draw on the differences in cognitive development between adults and children to argue that for children, the PA stereotype will hold, even when advertisements make use of moderately attractive models. Moreover, children have less cognitive defence mechanisms towards advertising compared to adults, which makes them more susceptible to advertising cues. This paper therefore proposes that even a moderate level of attractiveness of a peer model engenders higher ratings on other characteristics than low levels of attractiveness would. Moreover, we suggest that because only children of about 11 years or older are capable of high order reasoning (Piaget 1964), younger children will also associate characteristics that are less related to beauty with moderately attractive models compared to older children.

Previous research also suggests age differences in the effect of exposure to attractiveness in advertising on self-perceptions and self-esteem (Martin and Gentry 1997). Apart from its positive effects on advertising effectiveness, exposure to attractiveness in advertising might also influence children in a negative way. Attractive models in advertising can negatively influence self-ratings of attractiveness, self-esteem and mood (e.g. Bessenoff 2006; Hatoum and Belle 2004; Little and Manion 2006; Thornton and Moore 1993) and evoke feelings of inadequacy and/or jealousy (Bower and Landreth 2001; Richins 1991). Richins (1991) suggest that advertising generates social comparison, at least in some instances. Exposure to idealised advertising images alters comparison standards for the self and alters self-perceptions on the attribute idealized in the ads, resulting in lower satisfaction.

Richins (1991) shows that after viewing attractive models, subjects rated average women as less attractive because their comparison standards changed. This is consistent with prior research (Kenrick and Gutierrez 1980; Kenrick et al. 1989; Wedell et al. 1987) showing that images of highly attractive individuals can cause viewers to rate the attractiveness of more ordinary others lower than they would otherwise. Research on children shows inconsistent results. Martin and Kennedy (1993) assessed the effects of highly attractive models in ads for female pre-adolescents and adolescents but found no support for a lowering of self-perceptions. Martin and Gentry (1997) did find that female pre-adolescents' and adolescents' self-perceptions and self-esteem can be detrimentally affected by looking at beauty models, particularly when self-evaluation occurs, a motive naturally occurring when people compare themselves with models in ads (Martin and Kennedy 1994).

In their paper on children's understanding of TV advertising, Bijmolt, Claassen and Brus (1998) discuss that there seems to be a consensus among parents, researchers and policy makers about the possible negative effects of TV advertising on children. However, research on the effects of using attractive models in advertisements for children remains limited. Meanwhile, research finds more and more evidence that children are -in many ways- different than adults and adolescents. Our goal is to shed some light on the effect of using attractive models in advertising on evaluations, behaviour and self-perception of children of different ages. Our contribution to the literature is threefold: (1) we add to the limited research on the PA stereotype in children by investigating if the PA stereotype is present for moderately attractive models and if different characteristics are associated with beauty for two different age groups. Research on cognitive development suggests that the effects of the PA stereotype should be larger for younger children compared to older children; (2) To date, inconsistent research results exist on the influence of attractive (versus less attractive) models on the self-perception of children (Martin and Gentry 1997; Martin and Kennedy 1993; Van de Deen et al. 2011), which concentrates on the influence of idealised attractive models on girls between 10 and 13 years old. We extend this by investigating both *boys* and girls between 8 and 13 years old and by concentrating on *non-idealised moderately* attractive same age peer models; (3) no research on the effects of using moderately attractive same age peer models in advertising on children's attitudes and behaviour exists - while these models are often used in advertising to children.

More specifically, we determine how the use of moderately attractive (versus less attractive) models influences children's (aged 8-13) state of mind by presenting results of two

studies (study 1: 8-9 years old; study 2: 12-13 years old). We investigate (1) whether and to what degree the physical attractiveness stereotype applies to children, (2) whether children's self-perception is influenced by the attractiveness of an advertising model, (3) whether children's attitudes and buying intentions are influenced by the attractiveness of an advertising model, and (4) whether age affects (1), (2) and (3).

What is beautiful is good

Several studies already confirmed the presence of the PA stereotype, or the perception that physically attractive individuals possess more positive qualities and experience more satisfying life outcomes than do less attractive individuals, in children samples (e.g., Bazzini et al. 2010; Dion 1973; Ruiz et al. 2005). This PA stereotype has been observed in adult samples in different contexts (social and professional, Abramowitz and O'Grady, 1991; Buunk and Dijkstra 2011; Caballero and Pride 1984; Caballero and Solomon 1984; Caballero et al. 1989; Cash and Kilcullen 1985; Farley et al. 1998; Fink et al. 2006; Smith et al. 1999) and different cultures (Chen et al. 1997). The stereotype is most robust for perceptions of social competency and less predictive of intellectual competence, psychological adjustment, integrity and concern for others (Eagly et al. 1991). Dion et al. (1972) similarly found that individuals who were physically attractive were expected to experience more happiness in their lives (e.g., happier marriages, more professional success) than were less attractive individuals. More recent research on beliefs about attractiveness further supports such expectations. Evans (2003), for example, showed that women tend to believe that professional female models (who embody idealized attractiveness and thinness) are happier than average females.

While research with babies found that to some degree the attractiveness stereotype is innate (Langlois et al. 1990; Ramsey and Langlois 2002), there is little doubt that, despite the biological propensity for the stereotype, the environment encourages the preference by means of socializing agents (e.g., peers, parents, caregivers, teachers, mass media), who expose children to their own values and beliefs. Popular culture (like movies and advertising) is one of these powerful educational forces, teaching children cultural norms, regardless of parental background. Media contributes to the physical attractiveness stereotype by frequently encouraging associations between beauty and goodness. The movies children watch, for example animated children's movies, including Disney films, link beauty with goodness and happiness (Bazzini et al. 2010) and even pair beauty with intellect more than in adult movies.

As children watch films dozens of times (Robertson 1998), the subtlest messages in children's media become ingrained (Bazzini et al 2010). These associations stimulate the physical attractiveness stereotype and can make children infer that good things only happen to beautiful people, even though attractive women also have less positive qualities - like higher levels of narcissism and have higher divorce rates (Kaner 1995).

A number of diverse processes can be at play when employing the "what is beautiful is good" stereotype. Some authors argue that personality might in fact be correlated to the appearance of people (Dion et al. 1972), since attractive people might, for example, behave socially desirable when they learn that peers expect certain behaviour from them. The meta-analysis of Langlois et al. (2000) showed that attractive people are in fact more popular, show greater intelligence/performance competence and are better adjusted. The stereotype can also be seen as a projective technique in relationships with others. People may project their own desire to relate to attractive others by ascribing additional positive attributes (compatible to these bonding motives) to these attractive people (Lemay et al. 2010).

Consumer socialization and advertising to children

To be able to act as consumers in the market, children have to acquire skills, knowledge, and attitudes relevant to their role as consumers, a procedure that is called consumer socialization (John 1999; Kuhlman 1983). While growing up, children gain knowledge on products, brands, advertising, shopping, pricing, decision-making strategies, parental control and negotiation approaches (Berey and Pollay 1968; Hawkins and Conney 1974; John 1999; McNeal 1964; Robertson 1979; Ward 1972; Ward et al. 1977).

Consumer socialization takes place in a social context including the family, peers and mass media. This latter influential factor is of particular interest for this study. Young children are exposed to increasing numbers of media sources, of which television advertising is an effective tool to motivate consumers to buy products. In USA alone, children between 8 and 18 years watch about 4.5 hours TV each day (Kaiser family foundation, 2010), while European children spend between 2 hours and 20 minutes and three hours in front of the TV (Eurodata 2012). Some recent studies even report television watching times of 3.78 hours per day for preschool children (Tandon et al. 2012). Since children watch television as frequently as they do, they are also exposed to advertising stimuli on a daily basis. These advertising stimuli are therefore prominent in children's lives: it is estimated that children see over 40.000 television commercials a year (Kunkel et al., 2004). The more time children spend watching

television, the more they are influenced by it (Strasburger 1993) in their consumption choices and purchase requests (Bandyopadhyay et al. 2001), and the more they are socialised as a consumer.

Since in nearly 25% of the commercials, some form of attractiveness is present (Downs and Harrison 1985) and movies often link beauty with goodness and happiness (Bazzini et al. 2010), children learn to relate beauty to goodness by means of the process of consumer socialisation. This association is especially true in advertising, in which attractive models appear in positive settings (Buunk and Dijkstra 2011).

The influence of children's cognitive development on advertising effectiveness

Since the early 1970's, concerns about children's ability to comprehend and evaluate advertising messages have risen (McNeal 1987; Young 1990). Studies show that advertising can persuade children that a product is desirable (Roedder et al. 1983), but that cognitive development plays a crucial role in the processing of advertising (Martin 1997). Both Piaget's theory of cognitive development and information processing theories of child development share a focus on children's developing skills in the areas of acquisition, decoding, organization and retrieval of information (John 1999).

Cognitive development theories show that children become more informed consumers with age. With increasing age, children learn a number of essential skills that might help them to understand the intent of advertising, help them process advertising claims and make them less susceptible to the influence of advertising (John 1999; Martin 1997; Rozendaal et al. 2009).

Research on advertising literacy suggests that advertising literacy or the skills of analysing, evaluating, and creating persuasive messages across a variety of contexts and media (Young 2003) increase with age (Bandyopadhyay et al. 2001; Hastings et al 2003; Kunkel et al. 2004; Martin 1997; Oates et al. 2002; Rozendaal et al. 2011; Valkenburg and Cantor 2001; Wright et al. 2005; Young et al. 1996).

Before about 5 years of age, children do not consistently distinguish advertising from programs and so regard advertising as entertainment or as information about products rather than as persuasion (Blosser and Roberts 1985; Buijzen and Valkenburg 2003; Wartella 1980). However, by about 7 or 8 years of age, children have learned to identify the persuasive intent of advertising, distinguishing it from information, although, as Roedder (1981) added, they

often do not use this knowledge spontaneously and must be cued to do so (see also Brucks et al. 1988; John 1999; Moore 2004). Young children are perhaps incapable of using cognitive defences against advertising. Rozendaal, Buijzen and Valkenburg (2009) show that only at the age of 10 years, the understanding of the persuasive effect of advertising is effective in diminishing the relationship between exposure to advertising and product desire.

Between about 7 and 11 years of age, children are in a transitional phase in their responses to advertising, whereas younger children are widely considered limited in cognitive terms and therefore vulnerable to advertising.

Starting from about 7 years old (start of the “analytical stage”, Piaget 1964), enormous changes take place, both cognitively and socially, as children undergo important developments in terms of consumer knowledge and skills (John 1999). By the time children reach the age of 8 years, they are capable to respond to commercial advertisements in a more mature and informed way (John 1999). They learn to think abstractly, organize and use what they learn in the environment and learn to see the world through multiple perspectives, which provides them with consumer knowledge and decision making skills (John 1999). Their impression formation skills develop, enabling them to form impressions about people who use certain products (John 1999).

At about 11 years (start of the “reflective stage”, Piaget 1964), children progress to thought patterns like the ones employed by adults, they are more and more capable of complex thought about concrete and hypothetical objects and situations (John 1999).

From 11 years and on, children develop more sophisticated information processing and social skills (John 1999). There is a shift in orientation to a more reflective way of thinking and reasoning, as children move into adolescence and become more focused on the social meanings and underpinnings of the consumer marketplace. A heightened awareness of other people’s perspectives, along with a need to shape their own identity and conform to group expectations, results in more attention to the social aspects of being a consumer, making choices, and consuming brands. Consumer decisions are made in a more adaptive manner, depending on the situation and task. From about 12 years of age, children can articulate a critical understanding of advertising and of the intentions of its producers (Martin 1997; Peterson and Lewis 1988; Peterson et al. 1984), even becoming sceptical or distrustful of advertising (Boush 2001; Dorr 1986; van Evra 1998).

With increasing age, children also focus more on important and relevant attribute information (Davidson 1991; Wartella et al. 1979), use more attributes and dimensions in forming preferences (Bahn 1986; Capon and Kuhn 1980; Ward et al. 1977) and are more careful in considering these preferences in making choices (Roedder et al. 1983). The ability to focus on relevant attribute information also emerges as children move through the early elementary school years. Children younger than 7 are often attracted to perceptually salient information, which may or may not be relevant (Wartella et al. 1979). The ability to ignore irrelevant information, in favour of more relevant or important information, progresses as children move from kindergarten into the early elementary school grades (Wartella et al. 1979) and onward through early adolescence (Davidson 1991).

More recently, Livingstone and Helsper (2006) suggest that age does not necessarily cause a decrease of the effects of advertising, although this is a widespread common belief. They argue that, in fact, all age groups can be affected by advertising, but different persuasion processes occur at different ages. Livingstone and Helsper (2006) use the Elaboration Likelihood Model of Persuasion (Petty and Cacioppo 1986), and the Heuristic-Systematic Model (Eagly and Chaiken 1993) to make a distinction between younger children, who would be more likely to be persuaded by the peripheral route, and older children, who are more likely to be persuaded by the central routes that are proposed in these models. Since young children are more persuaded by peripheral elements, they are more interested in such superficial or peripheral features of advertising that are less related to the content of the message, such as colours, music and celebrity endorsers (Carruth et al. 2000; Dalmeny 2003; Kunkel et al. 2004; John 1999; Valkenburg and Cantor 2001). Older children, on the other hand, would be more attentive to the central persuasive route, which relates to the actual arguments of the message. Because they focus on the creativity or informative nature of the commercial they are more influenced by the quality of the arguments and claims of advertising, providing that they attend, that they are motivated to engage with the message, and that its arguments are convincing. This is consistent with the three stage persuasion process model that was suggested by John (1999), arguing that children younger than 7 years process advertisements in a “simple”, “concrete” and “unidimensional” manner. Children in this stage often make decisions based on limited information (for example based on one single attribute) and focus on perceptual information. In John’s model (1999), older children (11-16 years) process advertising “abstract”, “multi-dimensional” and “strategically”. Children in this stage make decisions based on multiple dimensions and are able to focus on relevant

attributes. Seven- to 11-year-olds then, are labelled as “analytical/cued:” they are gaining an understanding of the persuasive intent of advertising but they do not always use it and must be cued to use their developing analytical skills. Some other studies also suggest the presence of this dual process model (Moore and Lutz 2000; Ross et al. 1984). Moore and Lutz (2000) found that younger children use less elaborate strategies to process advertising suggestive of peripheral route processing and Ross et al. (1984) showed that children older than 11 years were less influenced by celebrity endorsements than children between 8 and 10. The younger children were more impressed by images of adult authority and more influenced by perceptual distortions of the product in the advertisements, again supporting the argument that peripheral route processing is more typical of younger than older children.

We can see that advertising practice actually used these differences in persuasion difference across age groups. Advertisements for younger children often use bright colours, lively music, and simple messages (Livingstone and Helsper 2006), and often emphasize the physical aspects of the product (Lewis and Hill 1998). These characteristics could be labelled as peripheral advertising elements. Advertisements for older children, on the other hand, use more stylish images, subtle messages and are often more witty (Livingstone and Helsper 2006).

Since younger children (1) have lower cognitive defences against advertising and (2) focus more on peripheral and less important advertising elements, they might be more susceptible to the PA stereotype, and might be more influenced by the persuasive intentions of these types of advertisements.

Hypotheses

Our first goal is to confirm the presence of the PA stereotype in children. Following previous research (Bazzini et al. 2010; Dion 1973; Ruiz et al. 2005), we argue that children rate attractive (versus less attractive) sources higher on other characteristics that are unrelated to beauty. Despite this general agreement with previous studies that established the PA stereotype in children, in this paper, a number of aspects are put forward that expand the limited insights that currently exist on the stereotype and its effect on children’s lives. First, this paper will make use of moderately attractive (versus less attractive) advertising models instead of highly attractive models. We draw on the differences in cognitive development between adults and children to argue that for children, the PA stereotype will hold even when advertisements make use of moderately attractive models. Children have less cognitive

defence mechanisms towards advertising, what makes them more susceptible to advertising cues. This paper therefore proposes that even a moderate attractiveness level of a peer model might engender more positive evaluations on other characteristics than less attractive peer models would. Second, contrary to some previous studies who used exposure to adult models (Bazzini et al. 2010), this study portrays same-age peer models. Same-age peer models as well as adult models are used in advertising practice to children, but few studies investigate same age peer models. Third, we assess a range of characteristics to relate to attractiveness of the model, whereas previous studies only used a few items per study (e.g. Dion 1973; Bazzini et al. 2010).

We argue that the PA stereotype reaches further for younger compared to older children, meaning that younger children will also associate characteristics that are less related to beauty with moderately attractive models. Younger children think differently than older children. Younger children's more simplistic representations of concepts might enhance the prevalence and effect of the physical attractiveness stereotype. Ramsey and Langlois (2002) suggested that younger children are less capable to process and recall information that is inconsistent with information they already have. Also, only children of about 11 years or older are capable of high order reasoning (Piaget 1964). As a result, when younger children see moderately attractive models, they will translate and alter additional information about the model so it conforms to already existing knowledge and schemas (i.e. the belief that what is beautiful is good). If young children are shown movies in which less attractive people perform good acts, they are less likely to correctly recall this movie (Ramsey and Langlois 2002). This could suggest that the effect of the PA stereotype in younger children's evaluation is more prevalent compared to older children's evaluations.

To the best of the authors' knowledge, no studies exist that tackle these aspects in one paper. We therefore propose the following hypothesis:

H1: Children of 9-years old or younger rate moderately attractive (versus non-attractive) sources higher on other source characteristics than children of 12 years or older.

A second goal is to investigate if physical attractiveness, shown in advertising, affects children's self-perception. Social comparison is an essential contributor to body image (Jones 2001) and children compare themselves with both peers and models. Research in adult samples shows that several aspects of self-perception can be affected by exposure to idealised models in advertising. For example, self-ratings of attractiveness decrease when respondents

see highly attractive models, social self-esteem is negatively (e.g., Bessenoff 2006; Little and Manion 2006; Thornton and Moore 1993) and body concern is positively affected (Hatoum and Belle 2004) by using highly attractive models in advertising. Research on children shows inconsistent results. Martin and Kennedy (1993) demonstrated that exposure to advertising with highly attractive models raises comparison standards for physical attractiveness, but does not affect self-perceptions of physical attractiveness. They also show that the tendency of female pre-adolescents (4th and 6th grade) and adolescents to compare themselves to models in ads increases with age, and this tendency is greater for those with lower self-perceptions of physical attractiveness and/or self-esteem. This non-significant result could be explained by the fact that the motive for which children compare themselves to models in ads (i.e. self-evaluation, self-improvement, or self-enhancement; Gentry et al. 1996) was not taken into account. Martin and Gentry (1997) did find that female pre-adolescents' and adolescents' self-perceptions and self-esteem can be detrimentally affected by looking at beauty models, particularly when self-evaluation occurs, a motive naturally occurring when comparing oneself with models in ads (Martin and Kennedy 1994). Following this research we pose:

H2: Exposure to moderately attractive (versus less attractive) models in advertising negatively affects children's self-perceptions.

Our third goal is to identify if children's evaluations of advertising and subsequent behaviour are also affected by using a moderately attractive (versus less attractive) model. To the best of the authors' knowledge, no studies on the effects of using a moderately attractive (versus less attractive) model on advertising effectiveness in children exist, while advertising to children often uses popular, attractive sources as a recognizable spokesperson for a product, thereby influencing children's preferences and buying behaviour (Pringle 2004). Children are often not solely interested in the product, but rather attracted by the image, as brought forward by the spokesperson that surrounds the product (Acuff 1999). Hence, source characteristics can play an important role in the effectiveness of advertising. Studies do show that advertising can persuade children that a product is desirable (Atkin and Gibson 1978; Roedder et al. 1983) but that cognitive development plays a crucial role in the processing of advertising. Scepticism towards advertising claims develops only from a certain age once certain cognitive and social developments have taken place (Bandyopadhyay et al. 2001; Rozendaal et al. 2011; Wright et al. 2005). Heyman and Gelman (2000) proposed that when young children (under 8 years) receive information about the attractiveness of a person and receive trait information that

might contradict the physical attractiveness stereotype, children sometimes reinterpret the information that contradicts the physical information to solve any inconsistencies. Older children are less likely to do this, since they rely more on behavioural information in making judgments (Hoffner and Cantor 1985). We can therefore assume that the effects of using a physical attractive (versus less attractive) model in advertisements are higher for younger children.

Research among adults shows that an attractive (versus less attractive) model results in higher message effectiveness (Parekh and Kanekar 1994). When adults see advertisements displaying attractive (vs. less attractive) models, products are more favourably evaluated. Interestingly, Parekh and Kanekar (1994) show that this effect is greater for products related to beauty (e.g., shampoo) compared to non-beauty related products (e.g., a ball-point pen). This linkage between attractiveness and the type of product might be irrelevant for younger children. Since the ability to focus on relevant attribute information increases with age (Davidson 1991; Wartella et al. 1979), we expect that age affects the pervasiveness of the effect of using attractive (versus less attractive) models, meaning that attitudes and intentions regarding an advertised product that is unrelated to beauty are more influenced by the physical attractiveness of the model for children of 9 years old or younger compared to older children. Younger children are limited processors, with processing skills that are not yet fully developed or successfully utilized (John 1999). The dual model proposed by Livingstone and Helsper (2006) suggests that younger children are more likely to be persuaded by the peripheral route, while older children are more likely to be persuaded by the central route. Hence, peripheral elements like the attractiveness of a source should have more influence on attitudes of younger (versus older) children.

H3a: Exposure to moderately attractive (versus less attractive) models positively affects advertising attitudes and buying intentions for products unrelated to beauty for children of 9 years old or younger.

H3b: Exposure to moderately attractive (versus less attractive) models does not affect advertising attitudes and buying intentions for products unrelated to beauty for children of 12 years old or older.

Methodology

Two experimental studies (study 1: 8-9 years old; study 2: 12-13 years old) were conducted to test the prevalence of the PA stereotype across different age ranges and the effect of using

moderately attractive models in advertising on self-perception and advertising effectiveness. For both studies, schools were contacted, where all children within the age range were invited to participate. Teacher, school and parental consent were obtained before starting each study. The children completed a self-administered survey and were interviewed in the classroom, out of sight of each other.

Study 1

Respondents

In study 1, 75 children between 8 and 9 years old participated (48% girls, $M = 8.5$, $SD = 0.50$). Children of 8 or 9 years were selected because research shows that children below that age are limited processors and are less able to ignore irrelevant information, in favour of more relevant or important information (John 1999; Wartella et al. 1979).

All children were recruited in two schools located at the centre of adjacent middle-sized cities in the Dutch speaking part of Belgium. These schools were located in the same province at only 12 miles distance of each other.

Design and stimuli

Children were randomly confronted with an advertisement using either a moderately attractive or less attractive same-sex model of their own age group. Since previous research shows that the assessment of overall attractiveness strongly correlates to the assessment of the attractiveness of the face (Mueser et al. 1984), we changed facial characteristics of the models. The models (one boy and one girl) used in this study were the same person in both the moderately attractive and less attractive ad, but were depicted as less attractive by changing some facial characteristics using Photoshop. Three aspects were manipulated that impact the way facial characteristics are perceived as attractive: symmetry, averageness and hormone signals. Symmetry is one of the main features that is associated with an attractive face for both men and women. Especially for young children and older people, symmetry is attractive (Kowner 1996). Averageness is a second characteristic that was taken into account when adjusting the models' facial characteristics. An average face is seen as more attractive because it is more balanced (Langlois and Roggman 1990). Finally, hormonal characteristics were incorporated by employing an imperfect skin for the less attractive model. Elements of all three facial attractiveness characteristics were employed when creating the less attractive model (e.g., adding pimples, changing nose and ear size, manipulating the size of the forehead etc.).

Pretesting ($N = 15$, $M_{age} = 8$) showed that the "moderately attractive" and "less attractive" models were identified as such. The moderately attractive models were found to be significantly (Boys: $F(1,14) = 6.65$, $p < .05$; Girls: $F(1,13) = 5.52$, $p < .05$) more attractive (Boys: $M = 2.93$; $SD = 1.16$; Girls: $M = 3.64$; $SD = 1.01$) than the less attractive models (Boys: $M = 2.07$; $SD = 0.96$; Girls: $M = 2.86$; $SD = 1.03$), as measured with a five-point scale.

Children saw an ad for a new pencil case, a product suitable for both boys and girls. In a pretest, children indicated a pencil case as a gender-neutral product when they were asked to rate the product on a five-point scale, ranging from "only for boys" to "only for girls" ($M = 3.13$, $SD = 0.52$), where the value "3" indicated respectively "for both boys and girls."

We selected a new pencil case, not available in Belgium, to eliminate the experience with the product - which could affect children's attitudes. Pretesting showed that the product was in fact unknown to the respondents when they were asked to rate the product on a five-point scale, ranging from "I have never seen this pencil case before" to "I have seen this pencil case before" ($M = 1.40$, $SD = 0.63$). We additionally compared evaluations of boys for the boy pencil case with evaluations girls had about the girl pencil case. Results show that boys' ($M = 1.57$, $SD = 0.54$) prior knowledge of the boy pencil case was not significantly different than girls' ($M = 1.25$, $SD = 0.46$) prior knowledge about the girl pencil case ($t(13) = 0.23$, $p = .23$).

Pretesting also showed that a pencil case is not perceived as a beauty product ($M = 1.33$; $SD = 0.62$). This item was evaluated by asking children to indicate if a pencil case is used to make a person pretty, and evaluated this on a five-point scale ranging from "NO!!!" to "YES!!!".

Boys saw a different pencil case than girls in the actual study (same shape, different colour). The pretest showed that both pencil cases were evaluated as equally positive when children were asked how much they liked each pencil case ($F(1,14) = 1.35$, $p = .27$). This was evaluated by asking children to indicate if they "liked" the particular pencil case on a five-point scale ranging from "NO!!!" to "YES!!!". We additionally compared evaluations of boys for the boy pencil case with evaluations girls had about the girl pencil case. Results of the pretest show that boys ($M = 3.71$, $SD = 1.25$) like the boy pencil case equally as girls ($M = 4.38$, $SD = 0.92$) like the girl pencil case ($t(13) = -1.18$, $p = .26$). Girls also believed the pencil case for girls ($M = 4.38$, $SD = 0.92$) was equally pretty as boys ($M = 3.43$, $SD = 1.72$) believed the pencil case for boys was ($t(13) = -1.36$, $p = .20$) when they were asked to

evaluate “how pretty they thought the pencil case was”, measured on a five-point scale ranging from “NO!!!” to “YES!!!”.

Measures and Procedure

Before the exposure to the ad, children reported their age and gender. Then, they completed all five items from the “general self-worth” and two items of the “physical appearance” subscales of the Dutch version (Treffers et al. 2002) of Harter’s (1988) Self-Perception Profile for Adolescents (SPP-A). In the original version of this scale, children had to choose one of two statements. For our study, and consistent with previous studies (Soenens et al. 2006; Wichstrom 1995), all questions were transformed to one-statement questions instead of having children choose between two statements (e.g., “Are you happy with who you are?” (general self-worth); “Are you happy with the way you look?” (physical attractiveness)). Questions were used instead of statements, because previous research showed that children are more capable of interpreting questions than statements (Buijzen and Valkenburg 2003). The children responded to the questions on a five-point scale, for which each answer possibility had verbal and non-verbal anchor points. The non-verbal anchor points were emoticons that indicated respectively (1) a very sad face, (2) a sad face, (3) a neutral face, (4) a happy face and (5) a very happy face. The verbal anchor points that were used were shown once at the beginning of the questionnaire. Verbal anchor points corresponded with the emoticons and indicated respectively (1) “NO!!!”, (2) “no”, (3) “In between”, (4) “yes” and (5) “YES!!!”.

Next, children saw the ad and filled in questions about their attitude towards the ad (Derbaix and Pecheux 2003; e.g., “Do you like this ad?”) and purchase intention. This latter factor was measured with items selected from Pecheux (2001) and supplemented with the following items “Would you want to buy this?” and “If you could choose one item in a toy store, would you choose this game?” Children also completed measures on previous experience with the product (one item measure: “Did you know the product before you saw this ad”; $M = 1.72$, $SD = 1.23$), liking of the product category (one item measure: “Do you like pencil cases in general?”; $M = 3.71$, $SD = 1.34$) and the attractiveness of the model on a five-point scale (“Do you think this child is pretty?”) using the non-verbal anchor points as described above. To assess the “what is beautiful is good” stereotype, we asked children to rate the sources on individual characteristics, which were adapted from previous studies and adjusted to the age of our sample. Characteristics were adapted from Lemay et al. (2010) (e.g., “generosity” was altered to “willingness to share toys”), Ramsey and Langlois (2002)

(e.g., “kind” and “friendly”), Boyatzis et al. (1998) (e.g., “smart”), Dion et al. (1972) (e.g., “happy”). To account for attractiveness unrelated traits, some other characteristics were added (e.g., “is good at sports”, “honest” and “follows the rules”)². Children were asked to indicate if the child on the advertisement possessed this characteristic and indicated their answer on a five-point scale using the non-verbal anchor points as described above. Finally, children completed the SPP-A subscales again.

Reliability analysis were performed for all individual scales and indicated coefficient alphas within the acceptable range for attitude towards the ad ($\alpha = .93$, $M = 3.47$, $SD = 1.36$), purchase intention ($\alpha = .85$, $M = 2.20$, $SD = 1.14$) and self-worth after being exposed to the ad ($\alpha = .68$, $M = 4.05$, $SD = 0.78$).

Reliability coefficients were low for self-worth before being exposed to the ad ($\alpha = .50$), therefore we removed two items from the scale ($\alpha = .58$). Additionally, perceived physical appearance before being exposed to the ad was also found to be low in reliability ($\alpha = .41$), although perceived physical appearance after being exposed to the ad ($\alpha = .80$) was reliable. Therefore, we used the two individual items measuring perceived physical attractiveness in the analysis: “Are you pleased with your body? (Before exposure; $M = 4.51$, $SD = 0.96$; after exposure; $M = 4.45$, $SD = 0.90$)” and “Are you happy with the way you look? (Before exposure; $M = 4.45$, $SD = 0.96$; after exposure; $M = 4.32$, $SD = 1.08$)”.

Research Results

Before analysing the results, we conducted a manipulation check to evaluate if the moderately attractive and less attractive models were also perceived as such. ANOVA analysis performed on the female part of the dataset showed that moderately attractive³ sources were rated as more attractive ($M = 3.94$, $SD = 1.30$) than less attractive sources ($M = 2.47$, $SD = 1.61$; $F(1,34) = 8.92$, $p < 0.01$). For boys, no differences between the moderately attractive and less attractive condition were found ($F(1,37) = 0.04$, $p = .84$). Boys consequently believed that both models were equally attractive. To account for this effect, the attractiveness rating (“How attractive is this boy/girl?”) was used in the further analysis for 8-9 year old boys instead of the manipulated condition.

² Factor analyses were performed to identify specific groups of characteristics. Since no consistent factors were found in the different gender groups, we used the single items in the analysis so comparisons between these characteristics can be made between gender groups.

³ Moderately attractive means that the model scores between 3 and 4 on the attractiveness scale; less attractive means that the models scores below 3 on the attractiveness scale.

Since beauty is, after all, a matter of perception (Little and Perrett 2002), the attractiveness rating was also used for the 8-9 year old girls and 12-13 year old boys and girls. In this way, we account for possible differences in perceived attractiveness of the models within manipulation conditions. Except for the boys of 8-9 years old, additional MANOVA analyses were performed using the manipulated conditions which showed similar results as the results reported.

We selected a new product to eliminate the experience with the product - which could affect children's attitudes. Results indicate that overall, children were not familiar with the product shown in the ad (Boys: $M = 1.84$, $SD = 1.39$; Girls: $M = 1.58$, $SD = 1.05$), and no gender differences were found in previous knowledge about the product ($F(69) = 4.36$, $p = .37$), which was consistent with the pre-test.

No significant gender differences were found when comparing for boys' and girls' evaluation of the product category "pencil cases" ($t(73) = -.78$, $p = .44$; Boys: $M = 3.59$, $SD = 1.37$; Girls: $M = 3.83$, $SD = 1.32$).

"What is beautiful is good" stereotype

We tested if the "what is beautiful is good" stereotype applied for children of 8-9 years old by identifying the relation between the perceived attractiveness rating and ratings on the other source characteristics through regression analysis for each characteristic (Table 1, part a).

For both boys and girls of 8-9 years old, perceived model attractiveness predicts a number of characteristics attributed to the model: "being friendly", "being kind", "being good at sports", "being happy", "being cheerful", "being smart", "being helpful", "paying attention in class" and "having a lot of toys".

Additionally, more than boys, girls of 8-9 years old attribute "trustworthy", "following the rules", "having a lot of friends", "willingness to shares toys", "honest", "doesn't leave the table without finishing meal" and "likes all kinds of food" to the model's level of attractiveness.

Insert Table 1 about here

Self-Worth and Physical Appearance

Interestingly, a negative relationship was found between attractiveness ratings and general self-worth for 8-9 year old boys, controlling⁴ for general self-worth before seeing the ad ($\beta = -.22$, $t(35) = -2.33$, $p < .05$), but not for girls ($\beta = .04$; $t(30) = 0.68$; $p = .50$).

Due to low reliability of the physical attractiveness scale, the two individual items were used in the regression analysis. Perceived attractiveness of the advertising model had no significant influence on 8-9 year old children's perceptions of their physical appearance after seeing the ad as measured by "Are you happy with the way you look?" (Boys: $\beta = -.01$, $t(36) = -.04$, $p = .97$; Girls: $\beta = -.09$; $t(33) = -.97$, $p = .34$), when controlling for this item measured before seeing the ad. There was, however, a positive significant influence of perceived attractiveness of the advertising model on 8-9 year old girls' perceptions of their physical appearance after seeing the ad as measured by "Are you pleased with your body?" ($\beta = .18$, $t(33) = 2.09$; $p = .05$), when controlling for this item measured before seeing the ad. This effect was not found for boys of the same age ($\beta = -.00$, $t(36) = -.03$; $p = .98$).

Hence, H2 is only confirmed for general self-worth in boys, the usage of moderately attractive sources has a negative impact on 8-9 year old boys' self-worth. The higher the participating boys rated the attractiveness of the advertised peer model, the lower their general self-worth. Exposure to moderately attractive models had a positive impact on 8-9 year old girls' self-reported physical appearance. The more attractive these girls rated the model, the more they boosted the self-evaluations of their body (Table 2, part a).

Insert Table 2 about here

Advertising effectiveness

We also show that for 8-9 year old children, attractiveness in models increases attitudes toward the ad (Boys: $\beta = .43$, $t(37) = 2.15$, $p < .05$; Girls: $\beta = .31$, $t(34) = 2.54$, $p < .05$) and purchase intentions (Boys: $\beta = .28$, $t(36) = 2.17$, $p < .05$; Girls: $\beta = .49$, $t(34) = 4.98$, $p < .001$) confirming H3a (Table 3, part a).

⁴ We used the post-rating as dependent variable and the pre-rating as an additional independent variable (besides perceived model attractiveness) to control for self-worth before seeing the ad.

Study 2

Respondents

In study 2, 57 children of 12-13 years old participated (49% girls, $M = 13$, $SD = 0.43$). Children within this age range were selected, because they represent children that are capable of high order reasoning (Piaget 1964).

All children were recruited in the same school in the Dutch speaking part of Belgium. This school was located in the same middle-sized city as one of the schools in study 1.

Design and stimuli

Consistent with study 1, children were randomly confronted with an ad using a same-sex moderately attractive or less attractive model of their own age group. Again, for the moderately attractive condition, a normal picture of the model was used, while for the less attractive model, the model was made less attractive by changing some facial characteristics using Photoshop.

Pretesting ($N = 11$, $M_{age} = 14$) showed that the "attractive" and "less attractive" models were identified as such. The attractive models were found to be significantly (Boys: $F(1,10) = 25.43$, $p < 0.01$; Girls: $F(1,10) = 26.94$, $p < 0.01$) more attractive (Boys: $M = 3.45$, $SD = 1.04$; Girls: $M = 3.64$, $SD = 0.81$) than the less attractive models (Boys: $M = 1.36$, $SD = 0.67$; Girls: $M = 1.91$, $SD = 0.54$), as measured with a five-point scale.

The same Wii game was offered to both girls and boys, since previous research indicated that videogames are rather gender neutral (Van de Sompel et al. 2012). This was additionally tested and children indicated a Wii game as gender-neutral when they were asked to rate the product on a five-point scale, ranging from "only for boys" to "only for girls" ($M = 2.82$, $SD = 0.41$), where the value "3" indicated respectively "for both boys and girls."

The advertised product in study 2 was a new Wii game, i.e., "Wii Around the world", which was especially developed for the purpose of this study. Pretesting showed that the product was in fact unknown to the respondents when they were asked to rate the product on a five-point scale, ranging from "I have never seen this game before" to "I have seen this game before" ($M = 1.82$, $SD = 1.17$). No gender differences occurred for prior knowledge of the Wii game ($t(9) = -.45$, $p = .66$; Boys: $M = 1.67$, $SD = 1.21$; Girls: $M = 2$, $SD = 1.23$).

Pretesting also showed that a Wii game is not perceived as a beauty product ($M = 1.55$, $SD = 0.69$). This item was evaluated by asking children to indicate if a Wii game is used to make a person pretty, and evaluated this on a five-point scale ranging from “NO!!!” to “YES!!!”. We additionally compared evaluations of boys and girls for the specific Wii game by asking children (1) if they liked the specific Wii game and (2) if they would like to play the game. They evaluated both on one-item five-point scales ranging from “NO!!!” to “YES!!!”. The pretest showed no gender differences in “liking” of this game ($t(9) = .59$, $p = .57$; Boys: $M = 3.50$, $SD = 1.05$; Girls: $M = 3.20$, $SD = .45$) or in willingness to play the game ($t(9) = .98$; $p = .35$; Boys: $M = 3.67$, $SD = 1.03$; Girls: $M = 3.00$, $SD = 1.23$).

Measures and Procedure

The same measures and procedure are used as in study 1. The children in this study received different answer possibilities than the youngest children in study 1. They answered on a five-point scale, for which each answer possibility only had verbal anchor points ranging from (1) “No, not at all”, (2) “No, not really”, (3) “In between”, (4) “Yes, somewhat” to (5) “Yes, absolutely.” The non-verbal anchor points that were used in the first study were not added due to the target age of this study. No difficulties in filling in the questionnaire due to the use of these verbal anchor points were reported.

Reliability analysis were again performed for all measures and indicated coefficient alphas within the acceptable range for all measures: attitude towards the ad ($\alpha = .87$; $M = 2.43$; $SD = 0.79$), purchase intention ($\alpha = .86$; $M = 2.22$; $SD = 0.95$), self-worth before being exposed to the ad ($\alpha = .82$; $M = 4.25$; $SD = 0.67$), perceived physical appearance before being exposed to the ad ($\alpha = .69$; $M = 4.12$; $SD = 0.79$), self-worth after being exposed to the ad ($\alpha = .87$; $M = 4.07$; $SD = 0.74$) and perceived physical appearance after being exposed to the ad ($\alpha = .81$; $M = 4.02$; $SD = 0.84$).

Children again completed measures on model attractiveness, model characteristics, previous experience with the product ($M = 1.68$; $SD = 1.18$) and liking of the product category ($M = 4.02$; $SD = 1.17$)

Research Results

Manipulation checks with ANOVA analysis showed that girls rated the moderately attractive source ($M = 3.80$, $SD = 0.68$) more attractive than the less attractive ($M = 2.54$, $SD = 0.97$) source ($F(1,26) = 16.35$, $p < 0.01$). The boys in this study also perceived the moderately attractive model as more attractive ($M = 3.27$, $SD = 0.46$) than the less attractive ($M = 1.50$,

$SD = 0.86$) model ($F(1,27) = 49.08, p < 0.01$). Consistent with the procedure described in study 1, the attractiveness measure was used to account for possible differences in perceived attractiveness of the models. All analyses were also performed using the manipulated conditions and showed similar results as the results reported.

We created a new Wii Game to eliminate confounding effects due to previous experiences with the product. Results indicate that overall, children were not familiar with the product shown in the ad (boys: $M = 1.86, SD = 1.27$; girls: $M = 1.50, SD = 1.07$), and no gender differences were found in previous knowledge about the product ($t(55) = 1.16, p = .25$).

Both boys and girls were asked to indicate whether they liked Wii games in general. Consistent with the pretest, results showed no gender differences in liking for Wii games ($t(54) = -1.75, p = .09$; Boys: $M = 3.75, SD = 1.30$; Girls: $M = 4.29, SD = 0.98$).

“What is beautiful is good” stereotype

We tested if the “what is beautiful is good” stereotype applied for children of 12-13 years old and evaluated if the perceived attractiveness rating influenced ratings on the characteristics by using regression analysis for each characteristic (Table 1, part b).

For both boys and girls of 12-13 years old, perceived model attractiveness predicts a number of characteristics attributed to the model: “being kind”, “being good at sports” and “having a lot of friends”.

Additionally, more than girls, boys of 12-13 years old attribute “being friendly”, “being happy”, “being helpful”, “having a lot of toys”, “being trustworthy” and “likes all kinds of food” to the model’s level of attractiveness and perceive moderately attractive models as being “less attentive in class”. Girls of 12-13 years old, on the other hand attribute “cheerful” to moderately attractive sources, where boys of this age did not.

Self-Worth and Physical Appearance

For children of 12-13 years old, regression analysis was used to investigate the influence of perceived model attractiveness on children’s own self-worth and physical appearance. No significant influence of attractiveness on self-worth was found for children of 12 to 13 years

old, when controlling for general self-worth before seeing the ad (Boys: $\beta = .11$, $t(26) = 1.14$, $p = .27$; Girls: $\beta = .08$, $t(24) = 1.09$, $p = .29$).

Similarly, perceived attractiveness of the advertising model had no significant influence on children's physical appearance, when controlling for physical appearance before seeing the ad (Boys: $\beta = -.02$, $t(25) = -.33$, $p = .74$; Girls: $\beta = .09$, $t(24) = 1.18$, $p = .25$).

Hence, H2 is not supported (Table 2, part b).

Advertising effectiveness

Advertising effectiveness was measured by assessing the attitude toward the ad and buying intentions for the advertised Wii game. We find that for 12-13 year old children, attractiveness in models does not increase attitudes toward the ad (Boys: $\beta = .21$, $t(27) = 1.55$, $p = .13$; Girls: $\beta = .15$, $t(26) = 1.11$, $p = .28$).

Regression analysis also reveals that perceived model attractiveness has no influence on 12-13 year old children's purchase intentions (Boys: $\beta = .05$, $t(27) = 0.34$, $p = .73$; Girls: $\beta = .15$, $t(26) = .81$, $p = .43$). Hence H3b is supported (Table 3, part b).

Discussion

Children are exposed to beauty and attractiveness in advertisements on a regular basis, which necessitates more insights in the impact attractiveness in advertising might have on children's lives (Bijmolt et al. 1998). It is important to know how children evaluate these attractive (versus less attractive) models and how this affects their self-perception and advertising effectiveness. If children's self-perception would be negatively affected by the use of attractive models, marketers should decrease their use of attractive spokespeople. Also, if results show that children's advertising evaluation and behaviour as well as their self-perception are influenced by the marketing technique of using attractive models, this could encourage governments or other organizations to set up sensitization to attract attention to this topic. Campaigns could be set up to teach children to use the physical attractiveness stereotype less or should invalidate this stereotype by showing its falsehood. Research suggests that teaching advertising literacy to children can help them overcome their misunderstandings of advertising messages (Valkenburg and Cantor 2001).

Our results do confirm the "what is beautiful is good" stereotype in children. For children of 8-9 years old, as well as children of 12-13 years old, attractiveness predicted evaluations of characteristics related to attractiveness (i.e., "being kind"). This confirms

previous research in adolescent samples (Boyatzis et al. 1998), relating attractiveness to popularity. In both age groups, attractiveness also predicted characteristics that are seemingly unrelated to attractiveness, like “being good at sports.” This indicates that the PA stereotype is prevalent for children, as well as young adolescents. Children of 8-9 years old also related characteristics like “being smart” and “paying attention in class” to attractiveness while 12-13 year old children did not, or even related “paying attention in class” negatively to attraction. This latter finding indicates that children of 12-13 years old are already showing perceptions that are consistent with adults, since previous studies show that for adults, beauty is weakly or negatively related to intelligence (Smith et al., 1999). Because the younger children in study 1 related more characteristics to beauty than the older children in study 2 did, we show that the extent to which children attribute positive characteristics to attractive people decreases with age. Our results show that as children mature, they attribute less unrelated characteristics to beauty, supporting H1. Children of about 12 years or older are starting to think more abstractly, make more elaborate deductions in their reasoning and are capable of high order reasoning (Piaget 1964), which can explain why the extent to which children attribute good things to beautiful people is higher for children of 9 years or younger. Age must therefore be seen as an influencing variable in assessing the importance of attractiveness on people’s evaluations of others.

Previous studies indicated that women are only slightly more impacted by attractiveness (Feingold 1992) or even indicated that attractiveness is equally important for males and females (Eagly et al. 1991), but we find gender differences. Most of these previous studies used idealised or highly attractive models, whereas this study employed moderately attractive models versus less attractive models. In this paper, more characteristics were predicted by attractiveness for girls (versus boys) of 8-9 years old and 12-13 years old boys attribute more positive characteristics to attractive models than girls of that age. Future research could additionally investigate the origin of these gender differences.

Our results also show that self-perception is sometimes negatively influenced by attractive advertising sources. High perceptions of attractiveness are associated with lower self-worth for 8-9 year old boys, while self-worth of 8-9 year old girls and children of 12-13 years old is not affected by perceptions of attractiveness. The negative relation between high perceptions of attractiveness and lower self-worth for 8-9 year old boys has to be interpreted with caution, since our manipulation of model attractiveness failed for this group. We used the attractiveness rating instead of the manipulated condition, since the attractiveness of the model can be perceived as an individual perception of the respondent. These perceptions of

beauty might not always be in line with standardised perceptions of beauty, and is therefore difficult to manipulate.

Pretesting did show that the attractive models were perceived as more attractive than the less attractive models and MANOVA performed on the samples for whom the manipulation did work (i.e. 8-9 year old girls and 12-13 year old boys and girls) show similar results compared to the regression results, but nevertheless, because of this failed manipulation in the first study we cannot definitely conclude that the influence of attractiveness on self-esteem and attitudes/intentions for 8-9 year old boys is a causal one. Further research should definitely look into the relation between model attractiveness ratings and self-esteem. Possibly, 8-9 year old boys with lower self-worth for example, think that other people are more attractive and hence rate model attractiveness higher.

Additionally, results show that higher perceptions of attractiveness are associated with higher perceptions of perceived physical (body) attractiveness for 8-9 year old girls, while physical attractiveness of boys of that age and children of 12-13 years old is not influenced. However, since the significance level of the former result is rather high ($p=.05$), future research should validate this to obtain a more conclusive insight in this effect.

If our results could be replicated in future studies, we can conclude that only the young boys are rather negatively affected by exposure to attractiveness in advertising. Current literature about the effect of advertising exposure on self-esteem often focuses on females and (pre)adolescent girls (Jones, 2001). For boys, however, literature is relatively scarce. Common beliefs have it that men are in some way less negatively affected by attractive portrayals of models in media than women are. Although we cannot find conclusive evidence for these suggestions from our study, we do see indications in the literature that the formation of male self-esteem is in many ways different than that of women. As they go from early through late adolescence, boys would for example show increasing self-esteem levels (Harter 1993) and generally, men seem to have higher self-esteem levels than women do (Jones 2001). Due to these differences, boys might also have other social comparison targets than girls. Literature often uses exposure to attractive models to explain the effects of social comparison on body image, but peers can also be central social comparison targets (Jones 2001). We advocate a more in-depth investigation of these comparison targets, since the differences found in our study amongst 8-9 year olds and other studies could be due to the models that were used.

This study employed moderately attractive models instead of the more frequently investigated highly attractive and idealized models. This distinction is important because, for both girls and boys, same-sex peers seem to be more often used for social comparison than models (Jones 2001). Our results point out the idea that boys and girls can be differently impacted by exposure to peer or idealized (celebrity) models. In the literature overview of Martin and Gentry (1997), indications are given about woman's propensity to compare themselves with models in ads. Jones (2001), on the other hand, shows that boys more often see same-sex peers as comparison targets than models. This might explain why their self-worth is negatively impacted by higher evaluations of the perceived attractiveness of same-sex peers. Possibly, for boys, these peers are worth comparing themselves with, whereas idealized models are not seen as possible social comparison targets. For girls, on the other hand, idealized models might be more valid social comparison targets. When they see same-sex moderately attractive peer models, they might not see themselves as less attractive than the model and hence it doesn't harm their own self-worth and can even positively influence perceptions of their own physical attractiveness.

If future research confirms that model attractiveness causes lower self-esteem for 8-9 year old boys, the drivers behind these effects should be examined as well as the fact if lower/higher self-perception is temporarily induced, why exposure to attractive models causes shifts in self-perception, why gender differences exist and if children with high (versus low) self-perceptions are responding differently to advertising stimuli.

Research with adults generally shows that an attractive (versus less attractive) model results in higher message effectiveness. Most studies, however, use products that are in some way related to beauty and attractiveness (e.g., Martin and Gentry 1997). Parekh and Kanekar (2001) show that this effect was greater for products related to beauty compared to non-beauty related products. In this study, we therefore used a non-beauty related product and found results similar to those of Parekh and Kanekar (2001) for the oldest children. For children of 12-13 years old, exposure to attractive advertising models that promoted a non-beauty related product, did not engender higher advertising effectiveness (as measured by attitude towards the ad and purchase intention). We believe these pre-adolescents are already showing similarities with adults, as they are capable of distinguishing the dissimilarities in match-up between characteristics of the endorser and characteristics of the product. However, to confirm this, future research should replicate our results. Study 2 had a rather small sample

size which could result in low test power. Although non-significant, the beta value of .21 for 12-13 year old boys could indicate a positive relation between model attractiveness and product attitude.

Our results do show that, for 8-9 year old children, an attractive (versus less attractive) model results in higher message effectiveness as measured by attitude towards the ad and purchase intention for the non-beauty related product. These results are consistent with previous studies that indicate that children between 7 and 10 have low ability and motivation to process arguments in advertising and have a lower ability to focus on relevant attribute information (Davidson 1991; Wartella et al. 1979), making peripheral information (such as model attractiveness) more important (Petty and Cacioppo 1986). These findings from previous research show that children might simply ignore discrepancies between the levels in which the product and the endorsers are attractiveness-related. Advertising effectiveness (as measured by attitudes and purchase intentions) of a non-beauty related advertised product is therefore more influenced by the physical attractiveness of the model for children younger than 9 years old compared to older children.

Policy implications

Results indicate some important implications for consumer policy. Based on our research, we suggest that policy makers limit the effects of using attractive models in advertising to children, especially to younger boys, since their self-perception could be decreased by these ads but also to young girls since their attitudes and behaviour are determined by ads using attractive models. The use of idealized models is often related to a decreased self-image but we show that even though our ads did not contain idealized images, the influence of attractiveness of models is still possible when using more realistic models, especially for younger boys and girls. If children learn at an early age that good things not only happen to attractive people, but rather that good things can be associated with people with all kinds of physical appearances; the PA stereotype could become less strong on an earlier age and exposure to attractive models could have less effect on children's self-perceptions and behaviour. We also want to note that older girls and boys, although they do think that good things are associated with moderately beautiful people, are not influenced in terms of attitudes and intentions by moderately beautiful models. This implies that, as children get older and their cognitive capacities increase, they are less influenced by the attractiveness of models. This suggests that the influence of attractiveness is extinguishing with increasing age. However, since young children are influenced by their perceptions of

beauty-goodness link and some adults are still affected (cfr. Bessenoff 2006; Little and Mannion 2006; Thornton and Moore 1993; Hatoum and Belle 2004) it remains important that public policy invalidates the PA stereotype. Children should therefore be informed about the stereotype and should be made aware of the possible effects of it.

Children get into contact with the attractiveness stereotype not only through advertising but also through movies, television shows etc. Policy makers should therefore inform and educate children about the prevalence of the stereotype in these different media channels, point out the existence of the stereotype through different educational methods (such as for example standardised lesson materials, educational movies in which the stereotype is discussed etc.), invalidate the stereotype and/or regulate the instances in which the physical attractiveness stereotype is strengthened (for example, movies, TV shows).

First, policy measures should be undertaken to inform/educate children about these effects. Since the stereotype is learnt early on and extends to moderately attractive peer models, children should be made aware of it and should be assisted to weaken the PA stereotype. Europe, for example, launched specific initiatives on consumer education, in which the integration of beauty stereotypes might also be implemented. In 2012, the European Commission started the European Consumer Agenda, a strategic vision on the growth of consumer policy in the next years in line with Europe's growth strategy (Europe 2020). This agenda also presents measures taken to empower consumers and boost their trust (European Commission 2012: 2). To improve consumer education and consumer knowledge, diverse initiatives were launched, among which "the consumer classroom", a website aimed at teachers from secondary schools. This website is an online platform, where teachers can share class material about topics that encourage consumer education for 12-18 year old students⁵. Despite the importance of this initiative, similar material on consumer education for children below that age are less developed. This is especially regretful due to the fact that older children are less influenced by attractive models. We therefore suggest more intensified measures to reach children at a younger age. Especially elementary school children should be made more consumer and media literate by incorporating attractiveness stereotypes in their education and by implying these consumer education programs earlier.

⁵ The Consumer Classroom, launched in 2013: <http://www.consumerclassroom.eu/>.

Second, public policy makers might play a more active role in reducing the stereotype by imposing regulations and laws that limit the use of it. Media could be encouraged, for example, to make variations in the link between attractiveness and goodness and to not always link unattractiveness with immoral behaviour. In this way, policy measures could invalidate the stereotype by regulating the instances in which the physical attractiveness stereotype is strengthened (for example, movies, TV shows). In 2013, this specific topic caused media commotion, when Disney launched a new toy line and decided to redesign princess Merida (the heroine of the movie 'Brave') into a better looking and more attractive version of herself. Common perception was that Disney confirmed the attractiveness stereotype, instead of trying to tackle it, by transforming one of the most atypical princesses of the Disney series (a princess that originally had observable imperfections, but was goodhearted). Although the general public is aware of this attractiveness stereotype and reacts to these frequent exposures to the stereotype, relatively little policy actions are currently undertaken to support this general counter reaction and to hereby invalidate the stereotype. Based on our research, we suggest that policy makers take more efforts to limit the effects of using attractive models in advertising to children, especially to younger boys, since their self-perception could be decreased by these ads but also to young girls since their attitudes and behaviour are determined by ads using attractive models. We therefore not only advocate more efforts to regulate the stereotype actively, but also to reinforce and stimulate self-regulatory actions of media.

Third, we believe that policy focus on overall media effects on children should be broadened. A lot of emphasis lies on the impact of media in the establishment of the 'thin ideal' for woman or the 'muscular body ideal' for men, which would have detrimental effects on body image, food intake etc. (e.g.: Flament et al. 2012). The thinness ideal, however, is only one aspect of current beauty ideals. Results of our studies suggest that attention should also go out to other types of stigmatization and stereotyping, such as beauty cues that are unrelated to weight or muscles, but related to facial attractiveness. We show that, even though our ads did not contain idealised images related to the thin or the muscular ideal, the influence of attractiveness of models is still possible when using more realistic models, especially for younger boys and girls. Attention should also go to the level of attractiveness of the advertised models, since we find different effects of exposure to moderately attractive models on boys' and girls' self-worth and self-perception.

A last policy implication that can be considered is the fact that policy makers might need to intensify their efforts to reduce the negative media effects specifically for younger

boys. Media coverage and academic research about idealised models especially focus on the effects on woman and female adolescents, instead of men or boys (Blond 2008). This paper found negative effects of exposure to moderately attractive models on general self-worth for 8-9 year old boys, which indicates that boys are in fact affected and in this specific case where moderately attractive models were used, even more so than girls of that age were. This implies that boys of this specific age should not be neglected in the attempt to reduce negative media effects. Since the body image differs across gender (McCabe & Ricciardelli 2003) and boys have different comparison targets (Jones 2001), we believe it to be essential for public policy to initiate more educational and regulatory activities directed towards reducing these effects.

Limitations and future research

Some limitations arise in the present research. In addition to the small sample size of study 2, as discussed above, we want to stress that boys of 8-9 years old did not evaluate the models' level of attractiveness as we intended. Pretesting did reveal significant differences in attractiveness perceptions, which suggests that boys of this age have different perceptions of what attractiveness is and thus an example of a model that is generally considered as attractive is hard to find. Therefore, we considered attractiveness ratings of the models as indicated by the respondents in our analyses instead of the original manipulated conditions and found that attractiveness perceptions are related to general self-worth and advertising effectiveness. However, we have to interpret the results found for the 8-9 year old boys with caution. Analyses of the relation between model attractiveness ratings, self-esteem, attitudes and intentions of 8-9 year old girls and 12-13 year old boys and girls were similar when using attractiveness ratings or the manipulated conditions so in this case, causal relations are implied.

In this study, each child saw an advertisement with a same-sex model. This technique has been used in previous studies, but might rule out important conclusions about exposure to advertising sources that are of different sexes. As adults, girls and boys might use different norms and values to evaluate the “attractiveness” of male or female advertising sources. Recent research on adults however suggests that gender of the source does not affect the link between attractiveness and persuasion (Praxmarer 2011).

Finally, because we used products in the ads that were adjusted to the age groups there might be more differences between Study 1 and Study 2 that are not related to age alone. The

findings might be attributed to, for example, the type of product, since study 1 tested an ad for a pencil case and study 2 tested an ad for a Wii game. We used different products for the two different age groups because children of different ages like different products. To control for possible differences associated with the products, we pretested whether the products were known, whether products were associated with beauty, and whether gender differences occurred in general evaluation of the product. Results were similar for both products.

Several opportunities for future research arise. We selected children between 8 and 13 years old to account for differences in cognitive development. Nevertheless, insights on this effect across different age ranges might contribute to understanding the developmental factors underlying the effect. Children below 7 years old, for example, are not capable of viewing advertising from the advertiser's perspective (persuasive intent) (Bever et al. 1975; Blosser and Roberts 1985; Robertson and Rossiter 1974; Rubin 1974; Ward 1977). The absence of knowledge of persuasive intent could lead to an even higher influence of model attractiveness on attitudes and behaviour of children who have not yet reached the analytical stage (<7 years old).

Van de Deen et al. (2011) show that idealised (extremely attractive) models in beauty advertising have a slightly positive influence on the self-image of 10-13 year-old girls, when these girls were induced with media awareness and have internalized the Western beauty ideal. Media awareness can thus protect children from the effects of exposure to idealised media images. We used non-idealised attractive models in our ads. Future research can identify if increasing media awareness also enhances self-image of 10-13 year-old girls/boys and other age groups when using non-idealised attractive models.

We have shown that using attractive models in advertising is more effective for the younger age group. As Livingstone and Helsper (2006) suggest, younger children could be more persuaded by peripheral tactics like the use of attractive models. Future research could identify if other peripheral tactics are more persuasive for younger versus older children.

Existing literature provides limited insights in the effects of exposure to attractive models on children's self-perception. This paper gives an indication that children's reactions to these types of stimuli are different than those of adults, and even older children. Study one specifically shows that gender differences can occur early on and should form a more extensive topic of interest for both academics and policy makers. Most regulating instances and pressure groups, for example, concentrate their work on sensibilisation of exposure to thin ideals in advertising exposure of girls and women. Our study at least shows that young

boys deserve more attention, as it is generally believed that they are less affected by these types of media exposure, while they could suffer from deteriorated self-perception after watching attractive peer models. Our study also suggests a more detailed distinction between ages, since social comparison and physical changes depend on the specific dynamics associated with the development of children. Martin and Gentry (1997) show that self-esteem and perceptions of self-attractiveness of female fourth and sixth graders can be lowered by beauty of models, especially when they are self-evaluating. Fourth graders are also negatively influenced by beauty of models when they are self-enhanced by discounting the beauty of the models suggesting that the motives children hold could explain effects of beauty of models on self-perception. Future research should measure motives to enhance our knowledge on the effects of model beauty on self-perceptions.

Conclusion

Our contribution is threefold as mentioned in the introduction: (1) we have gained knowledge on the PA stereotype in two different age groups by showing that the characteristics associated with attractive models are different in different age groups. In doing so, we also differentiate from previous studies in different ways. First, we used moderately attractive (versus unattractive) advertising models instead of highly attractive or idealized models. Second, contrary to some previous studies who used exposure to adult models (Bazzini et al. 2010), this study portrays same-age peer models. Same-age peer models as well as adult models are used in everyday advertising practice to children, while few studies investigate same age peer models. Third, we assess a range of characteristics to relate to attractiveness of the model, whereas previous studies only used a few items per study (e.g. Dion 1973; Bazzini et al. 2010). Fourth, this study employed one and the same model for the attractive and unattractive conditions, but altered the attractiveness level of the unattractive model by editing the pictures digitally. By doing so, we reduced manipulation noise due to differences in model characteristics that are unrelated to attractiveness.; (2) The second contribution of this study is that it adds to the knowledge on the influence of attractive (versus less attractive) models on the self-perception of children by showing that, for our sample, self-perception of 8-9 year old boys and perceived physical body attractiveness of 8-9 year old girls is influenced by looking at moderately attractive models in ads, while self-perception and perceived physical attractiveness of older children is not influenced. (3) We added to research on the effects of using attractive models in advertising by showing that for children of 8-9 years old attitudes and purchase intention are in fact impacted by model attractiveness.

References

- Abramowitz, I. A., & Ogrady, K. E. (1991). Impact of gender, physical attractiveness, and intelligence on the perception of peer counsellors. *Journal of Psychology, 125*(3), 311-326.
- Acuff, D. (1999). *The Psychology of Marketing to Kids: What Kids Buy and Why*. New York: The Free Press.
- Atkin, C., & Gibson, W. (1978). *Children's nutrition learning from television advertising*. East Lansing, MI: Michigan State University, Dept. of Communication.
- Bahn, K.D. (1986). How and when do brand perceptions and preferences first form? A cognitive developmental investigation. *Journal of Consumer Research, 13* (December), 382-393.
- Baker, M. J., & Churchill, G. A. (1977). Impact of physically attractive models on advertising evaluations. *Journal of Marketing Research, 14*(4), 538-555.
- Bandyopadhyay, S., Kindra, G., & Sharp, L. (2001). Is television advertising good for children? Areas of concern and policy implications. *International Journal of Advertising, 20*, 89-116.
- Bazzini, D., Curtin, L., Joslin, S., Regan, S., & Martz, D. (2010). Do Animated Disney Characters Portray and Promote the Beauty-Goodness Stereotype? *Journal of Applied Social Psychology, 40*(10), 2687-2709.
- Berey, L. A., & Pollay, R.W. (1968). The Influencing Role of the Child in Family Decision Making. *Journal of Marketing Research, 5* (February), 70-72.
- Bessenoff, G.R. (2006). Can the media affect us? Social comparison, self-discrepancy, and the thin ideal. *Psychology of Women Quarterly, 30*(3), 239-251.
- Bever, T. G., Smith, M.L., Bengen, B., & Johnson, T.G. (1975). Young Viewers' Troubling Response to TV Ads. *Harvard Business Review, 53* (November-December), 109-120.

Bijmolt, T., Claassen, W., & Brus, B. (1998). Children's understanding of TV advertising: Effects of age, gender, and parental influence. *Journal of Consumer Policy*, 21, 171-194.

Blond, A. (2008). Impacts of exposure to images of ideal bodies on male body dissatisfaction: A review. *Body Image*, 5(3), 244–250.

Blosser, B. J., & Roberts, D.F. (1985). Age Differences in Children's Perceptions of Message Intent: Responses to TV News, Commercials, Educational Spots, and Public Service Announcements. *Communication Research*, 12 (October), 455–484.

Boush, D. M. (2001). Mediating advertising effects. In J. Bryant, & J. A. Bryant (Eds.), *Television and the American family* (2nd ed., pp. 397–412). Mahwah, NJ: Erlbaum.

Bower, A. B., & Landreth, S. (2001). Is beauty best? Highly versus normally attractive models in advertising. *Journal of Advertising*, 30(1), 1-12.

Boyatzis, C. J., Baloff, P., & Durieux, C. (1998). Effects of perceived attractiveness and academic success on early adolescent peer popularity. *Journal of Genetic Psychology*, 159(3), 337-344.

Brucks, M., Armstrong, G.M. & Goldberg, M.E. (1988) Children's use of cognitive defences against television advertising: a cognitive response approach. *Journal of Consumer Research*, 14 (March), pp. 471-482.

Buijzen, M., & Valkenburg, P. M. (2003). The unintended effects of television advertising - A parent-child survey. *Communication Research*, 30(5).

Buunk, A. P., & Dijkstra, P. (2011). Does Attractiveness Sell? Women's Attitude Toward a Product as a Function of Model Attractiveness, Gender Priming, and Social Comparison Orientation. *Psychology & Marketing*, 28(9), 958-973.

Caballero, M. J., Lumpkin, J. R., & Madden, C. S. (1989). Using physical attractiveness as an advertisement tool –an empirical test of the attraction phenomenon. *Journal of Advertising Research*, 29(4), 16-22.

Caballero, M. J., & Pride, W. (1984). Selected Effects of Salesperson Sex and Attractiveness of Direct Mail Advertisements. *Journal of Marketing*, 48, 94-100.

Cabellero, M. J., & Solomon, P.J. (1984). Effects of Model Attractiveness on Sales Response. *Journal of Advertising*, 13 (1), 17-23.

Capon, N., & Kuhn, D. (1980). A developmental study of consumer information-processing strategies. *Journal of Consumer Research*, 7(3), 225–233.

Carruth, B. R., Skinner, J. D., Moran, J. D., & Coletta, F. (2000). Preschoolers' food product choices at a simulated point of purchase and mothers' consumer practices. *Journal of Nutrition Education*, 32(3), 146–151.

Cash, T. F., & Kilcullen, R. N. (1985). The eye of the beholder – susceptibility to sexism and beautyism in the evaluation of managerial applicants. *Journal of Applied Social Psychology*, 15(7), 591-605.

Chen, N. Y., Shaffer, D. R., & Wu, C. H. (1997). On physical attractiveness stereotyping in Taiwan: A revised sociocultural perspective. *Journal of Social Psychology*, 137(1), 117-124.

Dalmeny, K. (2003). Parents key to reducing overweight in children: Marketing targets children. *BMJ*, 328(7432), 169.

Davidson, D. (1991). Developmental Differences in Children's Search of Predecisional Information. *Journal of Experimental Child Psychology*, 52 (October), 239–255.

Debevec, K., Madden, T. J., & Kernan, J. B. (1986). Physical attractiveness, message evaluation, and compliance – a structural examination. *Psychological Reports*, 58(2), 503-508.

Derbaix, C., & Pecheux, C. (2003). A new scale to assess children's attitude toward TV advertising. *Journal of Advertising Research*, 43(4), 390–399.

Dion, K. (1973). Young Children's Stereotyping of Facial Attractiveness. *Developmental Psychology*, 9 (2), 183-188.

Dion, K., Walster, E., & Berscheid, E. (1972). What is beautiful is good. *Journal of Personality and Social Psychology*, 24(3), 285-290.

Dorr, A. (1986). *Television and children: A special medium for a special audience*. Beverly Hills, CA: Sage.

Downs, A. C., & Harrison, S. K. (1985). Embarrassing age spots or just plain ugly – physical attractiveness stereotyping as an instrument of sexism on American television commercials. *Sex Roles, 13*(1-2), 9-19.

Eagly, A.H., & Chaiken, S. (1993). *The Psychology of Attitudes*. Orlando, FL: Harcourt, Brace Jovanovich.

Eagly, A. H., Makhijani, M. G., Ashmore, R. D., & Longo, L. C. (1991). What is beautiful is good, but – a meta-analytic review of research on the physical attractiveness stereotype. *Psychological Bulletin, 110*(1), 109-128.

Eurodata (11/09/2012). Press release KIDS TV REPORT: Back to School, Back to TV. Retrieved December 17, 2012, from: <http://www.mediametrie.fr/eurodatatv/pages/la-newsletter-d-octobre-2012.php?p=126&page=159#art2>.

European Commission (2012). A European consumer agenda - Boosting confidence and growth. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. COM (2012) 225 final, 22 May 2012. Retrieved September 13, 2013, from: http://ec.europa.eu/consumers/strategy/docs/consumer_agenda_2012_en.pdf

Evans, P. C. (2003). "If only I were thin like her, maybe I could be happy like her": The self-implications of associating a thin female ideal with life success. *Psychology of Women Quarterly, 27*(3), 209-214.

Farley, S. D., Chia, R. C., & Allred, L. J. (1998). Stereotypes about attractiveness: When beautiful is not better. *Journal of Social Behavior and Personality, 13*(3), 479-492.

Feingold, A. (1992). Good-looking people are not what we think. *Psychological Bulletin, 111*, 304–341.

Fink, B., Neave, N., Manning, J. T., & Grammer, K. (2006). Facial symmetry and judgements of attractiveness, health and personality. *Personality and Individual Differences*, 41(3), 491-499.

Flament, M. F., Hill, E. M., Buchholz, A., Henderson, K., Tasca, G. A., & Goldfield, G. (2012). Internalization of the thin and muscular body ideal and disordered eating in adolescence: The mediation effects of body esteem. *Body image*, 9(1), 68-75.

Füg, O.C. (2008). Save the Children: The Protection of Minors in the Information Society and the Audio-visual Media Services Directive. *Journal of Consumer Policy*, 31, 45-61.

Gentry, J. W., Martin, M. C., & Kennedy P. F. (1996). Gender and Age Differences in the Importance of Physical Attractiveness: Advertising Presentations and Motives for Comparison for Pre-Adolescent Children. In *Proceedings of the Third Conference on Gender, Marketing, and Consumer Behavior*, J.A. Costa, ed.. Salt Lake City, UT: University of Utah Printing Service, 1-15.

Harter, S. (1988). *Manual for the Self-Perception Profile for adolescents*. Denver, CO: University of Denver.

Harter, S. (1993). Causes and consequences of low self- esteem in children and adolescents. In R. Baumeister (Ed.), *The Puzzle of Low Self-Regard* (pp. 87-116). New York: Plenum Press.

Hastings, G., M., Stead, L., McDermott, F., Alasdair, A.M., MacKintosh, M. Rayner, C., Godfrey, Caraher, M., & Angus, K. (2003). *Review of the Research on the Effects of Food Promotion on Children*. Galscow, UK: Food Standards Agency.

Hatoum, I.J., & Belle, D. (2004). Mags and abs: Media consumption and bodily concerns in men , *Sex Roles*, 51, 397-407.

Hawkins, D. I., & Conney, K. A. (1974). Peer influences on children's product preferences. *Journal of the Academy of Marketing Science*, 2 (Spring), 322-331.

Heyman, G. D., & Gelman, S. A. (2000). Preschool children's use of trait labels to make inductive inferences. *Journal of Experimental Child Psychology*, 77, 1-19.

Hoffner, C., & Cantor, J. (1985). Developmental differences in responses to a television character's appearance and behavior. *Developmental Psychology*, 21, 1065-1074.

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.

Jones, D.C. (2001). Social comparison and body image: Attractiveness comparisons to models and peers among adolescent girls and boys. *Sex Roles*, 45, 645-664.

Joseph, W. (1982). The Credibility of Physically Attractive Communicators: A Review. *Journal of Advertising*, 11 (3), 15-42.

Kahle, L. R., & Homer, P. (1985). Physical Attractiveness of the Celebrity Endorse: A Social Adaptation Perspective. *Journal of Consumer Research*, 11 (March), 193-202.

Kaiser Family Foundation (2010). Generation M² media in the lives of 8- to 18-year olds. Retrieved December 17, 2012, from: <http://www.kff.org/entmedia/upload/8010.pdf>.

Kamins, M. A. (1989). Celebrity and Noncelebrity Advertisement in a Two-sided Context. *Journal of Advertising Research*, 29 (June/July), 24-42.

Kaner, A. (1995). *Physical attractiveness and women's lives: Findings from a longitudinal study*. Dissertation Abstracts International: Section B. The Sciences and Engineering, 56(5-B).

Kardes, F. R., Cline, T. W., & Cronley, M. L. (2011). *Consumer Behavior: Science and Practice*. Mason, OH: South-Western/Cengage Learning.

Kenrick, D. T., & Gutierrez, S. E. (1980). Contrast Effects and Judgments of Physical Attractiveness: When Beauty Becomes a Social Problem. *Journal of Personality and Social Psychology*, 38 (January), 131-140.

Kenrick, D. T., Gutierrez, S. E., & Goldberg, L. L. (1989). Influence of Popular Erotica on Judgments of Strangers and Mates. *Journal of Experimental Social Psychology*, 25 (March), 159-167.

Kowner, R. (1996). Facial asymmetry and attractiveness judgment in developmental perspective. *Journal of Experimental Psychology-Human Perception and Performance*, 22(3), 662-675.

Kuhlmann, E. (1983). Consumer socialization of children and adolescents. A review of current approaches. *Journal of Consumer Policy*, 6 (4) 397-418.

Kunkel, D., Wilcox, B., Cantor, J., Palmer, E., Linn, S., & Dowrick, P. (2004). *Psychological issues in the increasing commercialization of childhood*. Report of the APA Task Force on Advertising and Children. Washington, DC: American Psychological Association. Retrieved December 17, 2012, from: <http://www.apa.org/pi/families/resources/advertising-children.pdf>.

Langlois, J. H., Kalakanis, L., Rubenstein, A. J., Larson, A., Hallam, M., & Smoot, M. (2000). Maxims or myths of beauty? A meta-analytic and theoretical review. *Psychological Bulletin*, 126(3), 390-423.

Langlois, J. H., & Roggman, L. A. (1990). Attractive faces are only average. *Psychological Science*, 1(2), 115-121.

Langlois, J. H., Roggman, L. A., & Rieser-Danner, L. A. (1990). Infants differential social responses to attractive and less attractive faces. *Developmental Psychology*, 26(1), 153-159.

Lemay, E. P., Jr., Clark, M. S., & Greenberg, A. (2010). What Is Beautiful Is Good Because What Is Beautiful Is Desired: Physical Attractiveness Stereotyping as Projection of Interpersonal Goals. *Personality and Social Psychology Bulletin*, 36(3), 339-353.

Lewis, M. K., & Hill, A. J. (1998). Food advertising on British children's television: A content analysis and experimental study with nine-year olds. *International Journal of Obesity*, 22, 206-214.

Little, A.C., & Mannion, H. (2006). Viewing attractive or less attractive same-sex individuals changes self-rated attractiveness and face preferences in women. *Animal Behavior*, 72, 981-987.

Little, A. C., & Perrett, D. I. (2002). Putting beauty back in the eye of the beholder. *The Psychologist*, 15(1), 28-32.

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), pp. 560-584.

Martin, M.C. (1997). Children's understanding of the intent of advertising: A meta-analysis. *Journal of Public Policy & Marketing*, 16(2), 205-216.

Martin, M.C., & Gentry, J.W. (1997). Stuck in the model trap: The effects of beautiful models in ads on female pre-adolescents and adolescents. *The Journal of Advertising*, 26(Summer), 19-33.

Martin, M. C., & Gentry, J.W. (1997). The Role of Esteem-Relevance and Perceived Control in Determining the Effects of Physically Attractive Models in Advertising on Female and Male Adolescents. *European Advances in Consumer Research*, Vol. III

Martin, M. C., & Kennedy, P.F. (1993). Advertising and Social Comparison: Consequences for Female Pre-Adolescents and Adolescents. *Psychology and Marketing*, 10 (November/December), 513-530.

Martin, M. C., & Kennedy, P.F. (1994). Social Comparison and the Beauty of Advertising Models: The Role of Motives for Comparison. In CT. Allen and D. Roedder John (Eds.), *Advances in Consumer Research*, Vol. 21, Provo, UT: Association for Consumer Research, 365-371.

McCabe, M. P., & Ricciardelli, L. A. (2003). Body image and strategies to lose weight and increase muscle among boys and girls. *Health psychology*, 22(1), 39.

McNeal, J. U. (1964). *Children as Consumers*. Austin, Texas: Bureau of Business Research, University of Texas.

McNeal, J. U. (1987). *Children as consumers: Insights and implications*. Massachusetts/Toronto: Lexington.

Moore, E.S. (2004) Children and the changing world of advertising. *Journal of Business Ethics*, 52(2), pp. 161-167.

Moore, E. S., & Lutz, R. J. (2000). Children, advertising, and product experiences: A multimethod inquiry. *Journal of Consumer Research*, 27(1), 31-48.

Mueser, K., Grau, B., Sussman, S., & Rosen, A. (1984). You're only as pretty as you feel: facial expression as a determinant of physical attractiveness. *Journal of Personality and Social Psychology*, 46(2), 469-478.

Oates, C., Blades, M., & Gunter, B. (2002). Children and television advertising: When do they understand persuasive intent? *Journal of Consumer Behavior*, 1, 238–245.

Parekh, H., & Kanekar, S. (1994). The physical attractiveness stereotype in a consumer-related situation. *Journal of Social Psychology*, 134(3), 297-300.

Pêcheux, C. (2001). *Children's reactions to advertising communication: The moderating effect of involvement and mood on advertising processing and effectiveness*. Doctoral dissertation, Facultés Universitaires Catholique de Mons, January 2001.

Peterson, L., & Lewis, K. E. (1988). Preventive intervention to improve children's discrimination of the persuasive tactics in televised advertising. *Journal of Pediatric Psychology*, 13(2), 163–170.

Peterson, P. E., Jeffrey, D. B., Bridgwater, C. A., & Dawson, B. (1984). How pro-nutrition television programming affects children's dietary habits. *Developmental Psychology*, 20(1), 55–63.

Petty, R. E., & Cacioppo, J. T. (1986). *Communication and Persuasion: Central and Peripheral Routes to Attitude Change*. New York: Springer-Verlag.

Piaget, J. (1964). *Development and learning*. In R. Ripple & V. Rockcastle (Eds.), *Piaget rediscovered* (pp. 7-19). Ithaca, NY: Cornell University.

Praxmarer, S. (2011). How a presenter's perceived attractiveness affects persuasion for attractiveness-unrelated products. *International Journal of Advertising*, 30(5), 839-865.

- Pringle, H. (2004). *Celebrity Sells* (Vol. VI). England: John Wiley & Sons.
- Ramsey, J. L., & Langlois, J. H. (2002). Effects of the "beauty is good" stereotype on children's information processing. *Journal of Experimental Child Psychology*, 81(3), 320-340.
- Richins, M. L. (1991). Social Comparison and the Idealized Images of Advertising. *Journal of Consumer Research*, 18 (June), 71-83.
- Robertson, G. (1998). Snow Whitey? Stereotyping in the magical kingdom. *Canadian Dimension*, 32 (5), 45.
- Robertson, T. S. (1979). Parental mediation of television advertising effects. *Journal of Communication*, 29(1), 12-25.
- Robertson, T. S., & Rossiter, J. R. (1974). Children and Commercial Persuasion: An Attribution Theory Analysis. *Journal of Consumer Research*, 1 (June), 13-20.
- Roedder, D.L. (1981). Age differences in children's responses to television advertising: an information-processing approach. *Journal of Consumer Research*, 8(2), pp. 144-153.
- Roedder, D. L., Sternthal, B., & Calder, B. J. (1983). Attitude-behavior consistency in children's responses to television advertising. *Journal of Marketing Research*, 20(4), 337-349.
- Ross, R. P., Campbell, T., Wright, J. C., Huston, A. C., Rice, M. L., & Turk, P. (1984). When celebrities talk, children listen: An experimental analysis of children's responses to TV ads with celebrity endorsement. *Journal of Applied Developmental Psychology*, 5, 185-202.
- Rozendaal, E., Buijzen, M., & Valkenburg, P. M. (2009). Do children's cognitive defenses reduce their desire for advertised products? *Communications: The European Journal of Communication Research*, 34, 287-303.
- Rozendaal, E., Buijzen, M., & Valkenburg, P. M. (2011). Children's understanding of advertisers' persuasive tactics. *International Journal of Advertising*, 30(2), 329-350.

Rubin, R. S. (1974). The Effects of Cognitive Development on Children's Responses to Television Advertising. *Journal of Business Research*, 2 (October), 409–419.

Ruiz, C., Conde, E., & Torres, E. (2005). Importance of facial physical attractiveness of audiovisual models in descriptions and preferences of children and adolescents. *Perceptual and Motor Skills*, 101(1), 229-243.

Smith, S. M., McIntosh, W. D., & Bazzini, D. G. (1999). Are the beautiful good in Hollywood? An investigation of the beauty-and-goodness stereotype on film. *Basic and Applied Social Psychology*, 21(1), 69-80.

Soenens, B., Vansteenkiste, M., Duriez, B., & Goossens, L. (2006). In search of the sources of psychologically controlling parenting: The role of parental separation anxiety and parental maladaptive perfectionism. *Journal of Research on Adolescence*, 16, 539-559.

Solomon, M. R., Ashmore, R. D., & Longo, L. C. (1992). The beauty match-up hypothesis – congruence between types of beauty and product images in advertising. *Journal of Advertising*, 21(4), 23-34.

Strasburger, V. C. (1993). Children, adolescents, and the media: Five crucial issues. *Adolescent Medicine*, 4, 479–493.

Tandon, P. S., Zhou, C., & Christakis, D. A. (2012). Frequency of Parent-Supervised Outdoor Play of US Preschool-Aged Children. *Archives of Pediatrics & Adolescent Medicine*, 166(8), 707-712.

Thornton, B., & Moore, S. (1993). Physical attractiveness contrast effect – implications for self-esteem and evaluations of the social self. *Personality and Social Psychology Bulletin*, 19(4), 474-480.

Treffers, D. A., Goedhart, A. W., van den Bergh, B. R. H., Veerman, J. W., Ackaert, L., & de Rycke, L. (2002). *Competentie-belevingschaal voor Adolescenten: handleiding*. Lisse: Swets Test Publishers.

Valkenburg, P. M., & Cantor, J. (2001). The development of the child into a consumer. *Journal of Applied Developmental Psychology*, 22(1), 61–72.

Van de Deen, F.S., Schwinghammer, S.A., & Verkooijen, K.T. (2011). The influence of idealised media images on the self-image of young girls: The positive moderating role of media awareness. *Tijdschrift voor Communicatiewetenschap*, 39(3), 90-106.

Van de Sompel, D., Vermeir, I., & Pandelaere, M. (2012). Gender Differences in Children's Creativity and Play Behavior. In S. P. McGeown (Ed.), *Psychology of Gender Differences*. Nova Science Publishers.

van Evra, J. (1998). Television and child development. London: Erlbaum.

Ward, S. (1972). Children's reactions to commercials. *Journal of Advertising Research*, 72 (April) 37-45.

Ward, S. , Wackman, D. B., & Wartella, E. (1977). *How Children Learn to Buy: The development of consumer information-processing skills*. Beverly Hills, CA: Sage.

Wartella, E. (1980). Children and television: The development of the child's understanding of the medium. In C. Wilhoit & H. DeBock (Eds.), *Mass communication review yearbook* (Vol. 1, pp. 516–553). Beverly Hills, CA: Sage.

Wartella, E., Wackman, D., Ward, S., Shamir, J., & Alexander A. (1979). The Young Child as Consumer. In E. Wartella (Ed.) *Children Communicating- Media and Development of Thought, Speech and Understanding*. Beverly Hills/London: Sage Publications.

Wedell, D. H., Parducci, A., & Geisel-man, R.E. (1987). A Formal Analysis of Ratings of Physical Attractiveness: Successive Contrast and Simultaneous Assimilation. *Journal of Experimental Social Psychology*, 23 (May), 230-249.

Wichstrom, L. (1995). Harter's self-perception profile for adolescents: Reliability, validity, and evaluation of the question format. *Journal of Personality Assessment*, 65, 100-116.

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), pp. 222-233.

Young, B.M. (1990). Television advertising and children, New York: Oxford University Press.

Young, B., Webley, P., Hetherington, M., & Zeedijk, S. (1996). *The role of television advertising in children's food choice*. London: Ministry of Agriculture, Fisheries and Food.

Table 1: The influence of gender and source attractiveness on source characteristics; * $\leq .05$; ** $\leq .01$

	PART A 8-9 years old				PART B 12-13 years old			
	Boys		Girls		Boys		Girls	
	df	β (t); p	df	β (t); p	df	β (t); p	df	β (t); p
Friendly	37	.50 (3.16)**	34	.50 (5.00))**	27	.34 (2.73)**	25	.20 (1.60); p = .12
Kind	36	.55 (3.17)**	34	.67 (5.69))**	27	.28 (3.19)**	26	.38 (3.44)**
Good at sports	37	.88 (5.58)**	34	.27 (2.45))*	26	.61 (3.72)**	24	.36 (2.33)*
Happy	37	.84 (4.56)**	33	.45 (4.27))**	27	.44 (2.77)**	25	.32 (1.84); p = .08
Cheerful	36	.69 (3.31)**	33	.42 (3.57))**	27	.28 (1.95); p = .06	25	.37 (2.28)*
Smart	36	.41 (2.29)*	33	.39 (3.34))**	27	-.01 (-0.08); p = .94	24	-.17 (-1.44); p = .16
Helpful	36	.61 (3.78)**	33	.39 (3.30))**	27	.29 (2.21)*	24	-.06 (-0.40); p = .69
Pays attention in class	37	.42 (2.50)*	34	.41 (4.40))**	26	-.43 (-2.06)*	25	-.21 (-1.42); p = .17
Having a lot of toys	37	.45 (2.39)*	33	.28 (2.10))*	26	.37 (2.13)*	24	.23 (1.30); p = .21
Trustworthy	36	.35 (1.69); p = .10	34	.53 (4.86))**	27	.35 (2.86)**	23	.08 (0.44); p = .66
Follows the rules	37	.37 (1.77); p = .09	34	.30 (3.07))**	26	-.22 (-1.17); p = .25	24	-.27 (-1.61); p = .12
A lot of friends	37	.35 (1.79); p = .08	34	.34 (3.17))**	27	.74 (5.95)**	24	.46 (4.17)**
Shares toys	36	.29 (1.50); p = .14	34	.46 (4.00))**	27	.15 (1.09); p = .29	25	.19 (1.35); p = .19

Honest	36	.33 (1.81); $p = .08$	32	.62 (8.25))**	27	.09 (.71); $p = .49$	24	.04 (0.28); $p = .79$
Doesn't leave the table without finishing meal	36	.09 (0.49); $p = .62$	33	.27 (2.76))**	26	.36 (1.88); $p = .07$	23	.21 (1.75); $p = .09$
Likes all kinds of food	37	.17 (0.94); $p = .36$	34	.25 (2.22))*	26	.29 (2.02)*	24	.32 (1.95); $p = .06$

Table 2: The influence of gender and source attractiveness on Self-Worth and Physical Appearance

	PART A 8-9 years old				PART B 12-13 years old			
	Boys		Girls		Boys		Girls	
	<i>df</i>	β (<i>t</i>); <i>p</i>	<i>df</i>	β (<i>t</i>); <i>p</i>	<i>df</i>	β (<i>t</i>); <i>p</i>	<i>df</i>	β (<i>t</i>); <i>p</i>
General Self-worth	35	-.22 (-2.33); <i>p</i> = .03	30	.04 (0.68); <i>p</i> = .50	26	.11(1.14); <i>p</i> = .27	24	.08(1.09); <i>p</i> = .29
Physical appearance					25	-.02(-0.33); <i>p</i> = .74	24	.09(1.18); <i>p</i> = .25
“Are you happy with the way you look?”	36	-.01 (-0.04); <i>p</i> = .97	33	-.09 (-0.97); <i>p</i> = .34				
“Are you pleased with your body?”	36	-.00 (-0.03); <i>p</i> = .98	33	.18 (2.09); <i>p</i> = .05				

Table 3: The influence of gender and source attractiveness on Advertising effectiveness

	<i>PART A</i> 8-9 years old				<i>PART B</i> 12-13 years old			
	<i>Boys</i>		<i>Girls</i>		<i>Boys</i>		<i>Girls</i>	
	<i>df</i>	$\beta (t); p$	<i>df</i>	$\beta (t); p$	<i>df</i>	$\beta (t); p$	<i>df</i>	$\beta (t); p$
Attitudes toward the ad	37	.43 (2.15); $p = .04$	34	.31 (2.54); $p = .02$	27	.21(1.55); $p = .13$	26	.15(1.11); $p = .28$
Purchase intentions	36	.28 (2.17); $p = .04$	34	.49 (4.98); $p = .00$	27	.05(0.34); $p = .73$	26	.15(0.81); $p = .43$