Chapter 1

General Introduction
“I would love to be someone in a magazine, ‘cause then I would be really thin and feel better about myself. But some women in magazines are extremely thin, that’s a pity!”

Respondent, girl, 15-years-old
1. General Introduction

The studies that are presented in this dissertation have investigated the impact of contextualization to idealized body imagery on body-related perceptions, such as body (dis)satisfaction. Such a pairing of model images with, for instance, verbal references is common in media fare. This research aims to contribute to the development of uniformly applicable mass media tools to counteract the negative effects of exposure to idealized body imagery, especially in adolescent girls. The General Introduction starts with positioning the relevance of this dissertation in the domain of media's impact on body perceptions and by explaining ideal bodies being perceived as sociocultural standards. Herein, we also indicate some paradoxical and inconsistent findings in the realm of media-induced body perceptions research. Furthermore, this chapter introduces the use of contextualization of media imagery by verbal messages such as labels and comments as a strategy to negotiate the effects from idealized body exposure, which gives rise to propose our Negotiated Media Effects Model. Finally, the general methodological considerations behind our study designs are defined, and an outline of subsequent chapters is presented.

1.1 Idealized Body Imagery in Mass Media

In contemporary Western society, advertising campaigns for products like diet pills, correcting underwear, and fitness equipment all thrive on exploiting the same body-ideal for women: ultrathin and beautiful. This pursuit for the ideal body sells. Many women and girls surrender to the fantasy of achieving an ideal body comparable to the highly attractive media models that are often portrayed in advertising and media fare, and buy into the proposed attainability solutions. While such ideal-body images can thus be employed as heuristic cues by marketers to increase sales, idealized body imagery can also have negative effects on consumers' social well-being and health (e.g., Grabe, Ward & Hyde, 2008; López-Guimèra, Levine, Sánchez-Carracedo, & Fauquet, 2010). After all, the constant exposure to ideal-body portrayals leads to accepting these bodies as sociocultural standards, and thereby guides comparison, modeling and imitation behavior to obtain such ideal bodies (e.g., Tiggemann, 2003; Barlett, Vowels, & Saucier, 2008). In some cases, such effects of media’s focus on the thin body-ideal can be extremely negative. For instance, a recent headline from a Dutch newspaper article read ‘Liposuction casualty weighed 54 kilos’ (“Lipsuctiedode woog 54 kilo”, 2007). According to the boyfriend interviewed in the article, his young and slender girlfriend became so dissatisfied with her own appearance by watching television programs like Extreme Make Over that she decided to endure deathly cosmetic surgery.
What is considered ‘an ideal body’ has been subject to changes over time and must be seen in a sociocultural context. Seventeenth-century paintings such as “The judgment of Paris” (1636) by the Flemish artist Peter Paul Rubens clearly show an admiration for voluptuous women. Still, in some countries like South Africa bigger bodies stand for prosperity and health among those experiencing a low socioeconomic status and living in rural areas (Swami et al., 2010). Likewise, aesthetic preferences seem to vary cross-culturally. For instance, African-Americans show more positive body images and tolerate bigger body sizes compared to their Caucasian-American counterparts (Padget & Biro, 2003). However, for women and girls in our 21st-century Western society, general ideal-body standards pertain to highly attractive and ultra-thin media models (e.g., Grabe et al., 2008; Groesz, Levine, & Murnen, 2002; Harrison, 2003). Such bodies are presented as a prerequisite for being pretty, successful, and having self-control, while bigger bodies are associated with laziness and a lack of discipline (e.g., Bergstrom & Neighbors, 2006; Bordo, 1993; Harrison, 2003). In line with such associations made to body shape, literature has suggested that the reasons underlying the desire to be slender and well-shaped may vary and go beyond ‘just physical aesthetics’. That is, Bordo (1993) has argued women associate a slender and firm body with a body that is ‘under control’ regarding the body’s internal processes as well as in the individual’s emotional and moral state. In this perspective, the study results of Dalley and Buunk (2009) pointed at a ‘fear of fat’ rather than ‘thinspiration’ as a motive for weight loss behaviour in women. Put differently, avoiding an over-fat identity more than approaching a thin-ideal identity seemed to have motivated dieting behaviour (Dally & Buunk, 2009). Bordo (1993) further argued that the shape and size of one’s body may reflect the social position, such as class status and gender role. Such sociocultural identity beliefs may coincide with a media landscape where ultra-thin models and celebrities with ideally-toned bodies prevail. In general, media consumers are highly influenced by these norm-setting body ideals (e.g., Grabe et al., 2008; López-Guimèra et al., 2010; Park, 2005). This is especially the case for young girls (e.g., Groesz et al., 2002).

Paradoxically, body shapes in reality have become increasingly discrepant with those in media stereotyping. While slim figures are omnipresent in the mass media (Fouts & Burggraf, 2000), Western society has seen an epidemic increase of overweight and obesity in recent years (WHO, 2012). In fact, media figures’ body shapes are highly unrealistic because they largely deviate from actual female body sizes (Fouts & Burggraf, 1999; 2000). Moreover, the increase in overweight prevalence coincides with a decrease in media figures’ sizes in the past decades (e.g., Park, 2005; Sypeck, Grey, & Ahrens, 2004). Additionally, although modeling principles and engagement in weight control strategies like dieting and exercising suggest that ultrathin bodies could be within-reach, media figures’ body shapes are not
attainable for most women. That is, the use of graphic modification computer programming creates an *artificial* ideal by removing imperfections and cutting body size (Derenne & Beresin, 2006), while most women cannot achieve the presented thin-ideal by healthy eating and exercising (cf. Brownell, 1991).

Even more worrying are findings on the prolonged effects of young girls’ negative body perceptions and subsequent weight control measures at later stages in life. Not only do unbalanced weight control strategies such as purging and excessive exercising put them at risk for developing eating disorders (e.g., Spettigue & Henderson, 2004), disturbed eating patterns are *also* predictive of being overweight or obese in a later stage of life, thereby closing the circle from thin-ideal exposure to being overweight (e.g., Neumark-Sztainer, Wall, Guo, Story, Haines, & Eisenberg, 2006a). In other words, dieting and unhealthy weight-control behaviors during adolescence are associated with more extreme and increasingly prevailing disturbed eating behaviors later in life, as well as with weight *gain* instead of weight *control* (Neumark-Sztainer et al., 2006a). Similarly, body dissatisfaction during adolescence is associated with depression and eating disorder symptoms in adulthood (Ohring, Graber, & Brooks-Gunn, 2002). Pointing at the role of media herein, some research has found direct associations of magazine exposure and weight control practices in girls (e.g., Field, Cheung, Wolf, Herzog, Gortmaker & Colditz, 1999a). The severe consequences on several sides of the weight spectrum accentuate the relevance of finding effective ways to counteract negative responses to idealized body exposure, and to prevent (long-term) health-risks, especially in adolescent girls.

In the field of prevention programming, several scholars have suggested that adolescent girls should be motivated to critically reflect upon the portrayed media models’ body shapes and appearances. Such critical reflection should include questioning how realistic these ideal images are (Sheldon, 2010; Spettigue & Henderson, 2004). Some efforts have already been made by means of media literacy interventions targeting body image issues. Generally, media literacy interventions aim to “*reduce harmful effects of media by informing the audience about one or more aspects of the media, thereby influencing media-related beliefs and attitudes, and ultimately preventing risky behaviors*” (Jeong, Cho, & Hwang, 2012, p. 454). Media literacy interventions that specifically target the topic ‘body image’ further aimed to induce critical thinking about appearance-related media fare and the portrayed idealized bodies (e.g., Ridolfi & Vander Wal, 2008; Stice, Chase, Stormer, & Appel, 2001; Yamamiya, Cash, Melnyk, Posavac, & Posavac, 2005). An example of such an intervention is a structured discussion following a video on body image or a body image session during ‘eating disorders awareness week’ on campus (Irving & Berel, 2001; Ridolfi & Vander Wal, 2008). Positive intervention effects were found such as increased skepticism...
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toward media images, increased awareness of media influence, and less internalization of beauty-ideals (e.g., Irving & Berel, 2001; Jeong et al., 2012; Ridolfi & Vander Wal, 2008; Posavac, Posavac, & Weigel, 2001).

Despite such positive effects, most of these interventions appear relatively limited in their outreach: they are time-consuming, small-scale, relatively expensive, and sometimes focus only on specific target groups. To overcome these restrictions, this dissertation studies a cost-effective intervention approach through contextualizing media models’ weight status in specific mass media settings. Using a mass media approach allows to target large groups and to use multiple exposure formats, the latter being revealed as an effective component in media literacy interventions (Jeong et al., 2012).

In this realm, some recent initiatives of media actors, stakeholders, and policy makers expressed the willingness to take responsibility and to show more realistic and healthier body standards in media fare. For example, several editors of Vogue-magazine throughout the world do not allow too young (i.e., below 16 years old) and too skinny (i.e., suspects of having an eating disorder) anymore, following their pact called ‘The Health Initiative’ (Milligan, 2012). Also, glossy magazines like Grazia sometimes openly discuss the weight of famous women by adding verbal references to pictures like ‘she’s too thin’, and recently a so-called plus-sized model won the America’s Next Top Model competition on international television. Furthermore, Dove® (i.e., a brand for body care products like deodorant and shampoo) launched its 'Dove® Campaign for Real Beauty' in 2004. This campaign entails, amongst others, that Dove® features a wide variety in body shapes of ‘real women’ in commercial outings to withstand the stereotypical thin-ideal norms. In a political context, the government of the United Kingdom has carefully considered a point-system that rates the amount of retouching used in images to be turned into legislation (BBC, 2012; Kee & Farid, 2011). Likewise, Israel has implemented a policy to ban too skinny models from national media appearances and to use disclosures on graphically made alterations to media images (Reuters, 2012). Similar measures have been suggested by Australia’s National Advisory Group on Body Image (see Tiggemann, Slater, Bury, Hawkins, & Firth, 2013). Importantly, these initiatives illustrate that tables seem to be slightly turning regarding thin-body idealization in contemporary society. However, the specific effects of these measures are not yet clear and warrant further study to test whether these initiatives of societal actors do favor the viability of applying such interventions in real-life mass media contexts.

This dissertation ties in with such a challenge of finding effective ways to promote a healthy body image while it also informs societal and political debates on the use of mandatory labels and disclaimer information on media models’ body shapes. In contrast to ample research on the effects from exposure to idealized body shapes in mass media,
surprisingly little research seems available on how to counteract media-induced negative effects by using the very same media. That is, we address the two-sided coin of media effects in our studies (Spettigue & Henderson, 2004): Although idealized media images clearly have detrimental effects, mass media also are ubiquitous and popular venues for providing information and social standards and, thus, may be able to counteract or redirect these negative effects. An important element to be addressed when redirecting negative media effects, is that a one-size-fits-all approach is usually ineffective. In fact, various studies have shown that consumers of media can respond in very different ways to similar media content (e.g., Holmstrom, 2004). Therefore, in order to effectively design interventions aimed at changing social standards and idealized body images, it is important to take potential divergent reactions to media fare into account.

1.2 Divergent Reactions to Idealized Body Imagery

Explaining the effects of idealized body exposure on its often young viewers is complex because, next to media exposure, many predisposing and reinforcing factors are involved. Zooming out to a bigger picture, individuals are influenced by their (social) environment, such as peers, parents, and media (Bandura, 2001; Bandura, 2004). This is no different for the internalization of ideal bodies as representations of social reality and the way an individual sees his or her own body. Body image has been defined as a multidimensional construct that entails self-perceptions and self-evaluation such as body satisfaction (Cash, 2004; Cash & Szymanski, 1995). The development of body image during adolescence is determined by biological (e.g., gender), psychological (e.g., susceptibility for internalization), socio-relational (e.g., family, peers), and sociocultural (i.e., media, schools, country) factors (Jones & Smolak, 2011; Keery, Van den Berg, & Thompson, 2004). Hence, media should be considered ‘only’ one aspect in this complex interplay of individual and environmental factors that impact an individual’s body perceptions (cf. Bandura, 2001; Jones & Smolak, 2011). However, while body-ideals result from trends and norms within Western society, mass media and peers have been addressed as most important reinforcing sources that offer ample references for such desirable body-standards (Field et al., 1999a; Grabe et al., 2008; López-Guimerà et al., 2010; Tiggemann, 2003). Therefore, media and peers take a central role in the studies presented in this dissertation.

Various theories further explain why people internalize ideal-body images as normative and realistic representations to which they should comply. First, Cultivation Theory proposes that constantly communicated messages become integrated in perceptions of social reality, especially in heavy media-consumers (cf. Gerbner & Gross, 1976; Gerbner, Gross, Morgan, Signorielli, & Shanahan, 2002). Hence, exposure to a large dose of idealized
body figures through media fare may normalize such figures (cf. Harrison, 2003; Tiggemann, 2003), especially since media further underscore idealization by emphasizing and rewarding ultraslim figures (e.g., Fouts & Burggraf, 2000; López-Guimèra et al., 2010). Second, Social Cognitive Theory postulates that individual behavioral patterns and environmental factors, such as media, mutually influence each other. The modeling principle from this theory further explains how exposure to ideally-shaped media role models may guide imitation behavior (Bandura, 2001). In addition, social comparison (cf. Festinger, 1954) with media models has been postulated as an important underlying mechanism for internalization of ideal standards and for developing body perceptions (e.g., Cattarin, Thompson, Thomas, & Williams, 2000; Dittmar & Howard, 2004; Hargreaves & Tiggemann, 2009; Tiggemann & McGill, 2004). Similarly, Objectification Theory (Fredrickson & Roberts, 1997) explains that internalization of a body-focused view of the female body can result in third-person observations of one’s own body, thereby focusing on one’s outer appearance and one’s looks rather than inner personality and competences (e.g., Lindberg, McKinley, & Hyde, 2006). The resulting objectified body consciousness is classified by constantly assessing one’s looks and feeling ashamed of one’s body, and this particular body affect has been found in (emerging) adults and adolescents (e.g., Knauss, Paxton, & Alsaker, 2008).

Inconsistent findings within the large body of research on media affecting body image secure the complexity of media’s role in affecting body perceptions. A large body of research has pointed toward the detrimental effects of media-induced ideal-body imagery. Such negative effects include experiencing body dissatisfaction, lowered self-esteem, distorted body perceptions, and depression, and involving in unhealthy self-regulatory behaviors to control weight such as skipping meals, and excessive exercising (e.g., Dohnt & Tiggemann 2006; Field, Camargo, Taylor, Berkey, & Colditz, 1999b; Lee, Damhorst, & Ogle, 2009; Neumark-Sztainer, Paxton, Hannan, Stat, Haines, & Story, 2006b). Recent meta-analyses and reviews have confirmed the negative impact of ideal body exposure (Barlett, Vowels, & Saucier, 2008; Grabe et al., 2008; Groesz et al., 2002; López-Guimèra et al., 2010), especially in girls below 19 years old (Groesz et al., 2002). Such media-induced negative effects may even induce approval of more invasive measures such as using diet pills and laxatives or considering plastic surgery (Harrison, 2003; Sarwer & Crerand, 2004), or contribute to the onset of eating disorders (Spettigue & Henderson, 2004). In all, body dissatisfaction is found to be so prevalent among women and girls nowadays, that it is considered a “normative discontent” (Tantleff-Dunn, Barnes, & Larose, 2011). More specifically, body dissatisfaction can be defined as subjective and negative beliefs about one’s body shape (e.g., in Garner, 2002) and was found to be induced by exposure to ideal-body images, regardless of the media type in which exposure was set, such as magazines (Tiggemann, 2003),
advertisements (Bissell & Rask, 2010; Hargreaves & Tiggemann, 2003; Hargreaves & Tiggemann, 2004), or music videos (Dohnt & Tiggemann, 2006; Tiggemann & Slater, 2003). While various models and studies thus provide strong theoretical and empirical explanations for the negative effects of media coverage showing idealized bodies, some more positive news should also be reported. After all, a few meta-studies concluded that ideal-body depictions in media resulted in only small to hardly any effects on body perceptions in women (Ferguson, 2013; Holmstrom, 2004). Moreover, some studies even found more positive body perceptions after idealized body exposure (Knobloch-Westerwick & Crane, 2012; Mills, Polivy, Herman, & Tiggemann, 2002).

To explain the divergent directions of the effects in idealized body image research, we propose that the setting of the image is an important element that should be accounted for: To date, studies on media effects of idealized body images seem to have underplayed the importance of contextualization. Some scholars stated previously that the implications of several studies dealing with media and body image are constrained, because these studies only exposed their participants to images that were deprived of accompanying texts. Although understandable from a researcher point of view in designing an experiment, this practice appears rather unnatural because real-life media fare such as magazines generally shows joint images and text (Aubrey, 2010; Dohnt & Tiggemann, 2006; Ferguson, 2013; Harrison, Taylor, & Marske, 2006; Holmstrom, 2004; Knobloch-Westerwick & Crane, 2012; Want, 2009). Importantly, it could be expected that the content of messages, headlines, and surrounding comments made to the idealized body images frames the viewer's perceptions of these images. Thus, the differences found for the impact of idealized body imagery, may be dependent on how the imagery is contextualized by, for instance, verbal references and feedback. Related, studies thus far on media effects of body images may have overlooked the importance of underlying motivational processes for media exposure, while these may also contribute in clarifying the direction of media-induced effects (Levine & Murnen, 2009). In this context, a few studies have indicated that different motives for social comparison with ideal-body figures may direct either negative effects on body satisfaction (i.e., when a self-evaluation motive is induced), or positive effects (i.e., when a self-improvement motive is triggered; Halliwell & Dittmar, 2005; Knobloch-Westerwick & Romero, 2011; Martin & Gentry, 1997; Mills et al., 2002). Such underlying motives for body comparisons that are evoked upon exposure to ideal-body models can be seen as contextualization as well. Hence, the topic of contextualization of media models' body shapes takes center stage in our studies.

In further extending the above, given the impact media can have, the question arises why not to use the very same media for improving one's body image? To the best of our knowledge, only very few studies have investigated how mass media can be used to redirect
detrimental effects from ideal-body exposure. In our studies, we therefore address the two-sided coin of media effects (cf. Spettigue & Henderson, 2004) and reasoned that media can be used as a tool to negotiate its effects: Although idealized media images clearly have detrimental effects, mass media also are ubiquitous and popular venues for providing information and setting social standards and, thus, may be able to counteract or redirect these negative effects. Such a tactic is supported by scholars who strongly argue the need for research guiding effective prevention programming in case of body image issues (Levine & Murnen, 2009; López-Guimèra et al., 2010). It also lines up with the field of entertainment education and serious game studies, in which popular media approaches are used as tools to increase learning and promote health behavior (Baranowski, Buday, Thompson, & Baranowski, 2008; Kato, 2010). Further drawing on the use of information labels in other health settings and on marketing principles, we planned a systematic and empirical analysis to investigate the effectiveness of negotiating idealized body imagery by contextualization through (peer) feedback and verbal messages. In order to explain the underlying considerations of our approach in more detail, we next present our Negotiated Media Effects Model and its empirical predictions.

### 1.3 Negotiated Media Effects Model

The focus on contextualization of media models’ body shapes is fundamental in this dissertation as a mechanism for explaining the divergent media-induced effects on body perceptions. More specifically, we argue that contextualization of idealized body imagery may act to negotiate psychosocial responses and body perceptions resulting from ideal-body exposure. The direction of these responses is assumed to be dependent on the specific directive content of the contextualization. Here, we propose a Negotiated Media Effects Model that predicts two main effects on recipients’ body perceptions resulting from exposure to ideal-body imagery in specific context: counteracting and normalization, which will now be discussed in more detail (see Figure 1.1 for a schematic presentation).

First, we assumed that undesired effects from ideal-body exposure can be counteracted by bringing the actual weight status of the idealized media models to the fore. Put differently, a counteracting effect would occur when thin-ideal images are contextualized as being ‘underweight’ or ‘extremely thin’. In this case, the contextualization would confirm what media consumers see and implies that the portrayed bodies are in fact not a realistic and healthy norm to live up to. Subsequently, girls may respond less upset regarding their own body upon exposure to such ideal-body imagery. Next to the counteracting effect, we expected that overtly considering media models as ‘normal’ would instigate a normalization effect in adolescent girls: they are then led to believe that the presented models have
commonly occurring body shapes. In case of thin-ideal media models, expressing that such ideally-shaped figures are ‘normal’ explicitly mimics what implicitly occurs through media exposure in Western countries: ultrathin media models are predominantly portrayed as if their body shapes are ‘normal’ and strived after. Consequently, explicating that idealized body images are ‘normal’ may lead to negative body-related self-perceptions. Alternatively, considering average-sized (and thus in fact more normally-sized) media models to be ‘normal’ may ease responses.

Then, the question arises on how to create these effects to be put to the test. Drawing on so-called counter-advertising principles as used in other health settings, we propose that information labels can be used to establish the effects. In counter-advertising, factual and persuasive information about the content and risks of certain products and behaviors is presented to reduce harmful effects of advertising (Agostinelli & Grube, 2002). A general approach in counter-advertising is the use of textual labels, which has shown positive results for a variety of health issues such as smoking cessation, reduction in excessive alcohol intake, and more healthy beverage and food intake (e.g., Agostinelli & Grube, 2002; Bushman, 1998; Cowburn & Stockley, 2005; Gray, Karnon, & Blackwell, 2011; Neuhouser, Kristal, & Patterson, 1999). These examples indicate that accurate and purely informative texts about the content of a certain product (information labels; cf. Bushman, 1998; Cowburn & Stockley, 2005), can positively influence a desired outcome. Thus, more specifically relating to the counteracting effect in our studies, we assumed that accurately informing adolescent girls on the actual underweight status of thin-ideal media models by using simple and factual verbal labels, would reduce negative affect. Put differently, contextualizing (ultra)thin media models with an information label that explicates the ‘underweight’-status of those models, may prompt less negative body-related outcome measures, such as less body dissatisfaction. Alternatively, an information label claiming ideally-shaped bodies to be of ‘normal weight’ may lead to increased negative responses, such as, more body dissatisfaction: the normalization effect would then follow.

Related research that added text to idealized body imagery has shown that images-only and images plus exercise- and diet-related texts on slender media models reduced actual eating behavior when compared to a control group that saw no images at all, and a group that saw images with irrelevant texts (Harrison et al., 2006). These scholars also concluded that words add meaning and connotations to images, since they found different reactions to the different texts in their experiment. In a similar vein, a review showed that exposure to text and images simultaneously enhances learning (Carney & Levin, 2002). This lines up with theorizing on ‘verbal anchoring’, which postulates that verbal cues can fix implicit meanings of images, thereby increasing comprehension of messages and their
interpretation (Philips, 2000). Moreover, Toepoel and Couper (2011) found that verbal and visual cues interact in influencing responses to survey questions. Importantly, they found that verbal texts draw more attention over pictures, especially when verbal cues were not in line with visual cues. Given the proposed impact of texts accompanying pictures, we applied simple and factual verbal labeling of ideal-body imagery in our studies to investigate their combined impact on body-related outcome measures.

Further considering the content of contextualization, informing the public should be clearly distinguished from warning. A large body of research has revealed inconsistent results from warning labels that explicitly notify the risks and detrimental effects of usage. Some results are positive and decrease the attractiveness of the harmful product (Borland et al., 2009), while most studies found boomerang effects of warning labels, causing an increased desire for a harmful or forbidden product (cf. Forbidden Fruit Theory, Christenson, 1992; Reactance, Brehm, 1972). This is the case especially for adolescents who may feel restricted in their freedom and rebel against the cautions (Erceg-Hurn & Steed, 2011). For example, restrictive age labels on violent media increased the desire to watch the TV programs or play the violent games among adolescents (Nije Bijvank, Konijn, Bushman, & Roelofsma, 2009), and warnings increased alcohol consumption (Ringold, 2002). In the context of body image, a few studies have used warning texts on body imagery or pro-anorexia websites and they claimed to have found positive results (Martijn, Smeets, Jansen, Hoeymans, & Schoemaker, 2009; Slater, Tiggemann, Firth, & Hawkins, 2012). However, these studies did not emphasize the personal risk of the exposure to the viewer in their warning texts (as stated in Bushman’s definition of warning labels, 1998), but rather provided facts about the consequences of having an eating disorder, or stated that media images have been subject to digital adjustments. Therefore, these texts might have been perceived more like factual information, such as ‘the image is altered’, than warning texts. Alternatively, a similar study found that warning labels in fashion advertisements showing ideal-body images increased body dissatisfaction in women who are high in appearance comparison (Tiggemann et al., 2013). Given the inconsistencies in effects from warning labels, and considering the possibility of boomerang effects in our target group of adolescents, we assumed simple and clear-cut information labels to be most applicable in our studies. To the best of our knowledge, the use of information labels has not yet been systematically applied in body image and media effects research to counteract negative body perceptions in adolescent girls and young females.

Drawing further on labeling media models, variations can be made to investigate the effects of contextualization of ideal-body imagery in more detail, such as including motivational processes for self versus model comparisons. For instance, the labeling can be
presented more implicitly, such as through messages that evoke specific underlying motives for comparison with the portrayed models. Supposedly, evoking the impression that one can achieve an ideal-body by suggesting effective measures on how to improve one's body, for example by working-out, may also counteract negative body perceptions (e.g., following Harrison et al., 2006; Knobloch-Westerwick & Romero, 2011; Martin & Gentry, 1997). Alternatively, messages that instigate to just evaluate one's body with the presented models’ bodies may cause negative body perceptions to rise when such messages are deprived of effective solutions to become this ideally-shaped.

Another example of further elaborating contextualization of ideal-body portrayals rises from peers coalescing with media portrayals in influencing girls’ weight and appearance-related attitudes and perceptions (e.g., Dohnt & Tiggemann, 2006; Jones, Vigfusdottir, & Lee, 2004; Lawler & Nixon, 2011; also argued by López-Guimèra et al., 2010). Adolescents consider their peers as very important information sources and, seeking for acceptance, copy their behavior and attitudes (e.g., Jones, 2001; Schutz, Paxton, & Wertheim, 2002). Especially given the developmental stage of our main target group being adolescent girls, an even stronger effect of labeling may be expected when peers are explicitly presented as the distinct sender of the information. Thus, in addition to studies on weight information labels put to media models, we investigated the extent to which norm-affecting information from peers strengthens or weakens the psychosocial responses to media-induced ideal-body imagery.

In conclusion, contextualization of idealized body imagery seems important in clarifying effects of media exposure (cf. Harrison et al., 2006; Knobloch-Westerwick & Crane, 2012; Levine & Murnen, 2009). We applied unique experimental research designs to test the presumed causal relationships as presented in the Negotiated Media Effects Model. The studies in this dissertation have applied contextualization principles by systematically framing idealized body imagery with short and factual information texts (versus warning texts), peer feedback on media models’ body weight, and information prompting differential motives for comparison with media models. Our methodological considerations in further developing the study materials and the decisions for choosing specific research settings are further clarified in the next section.
1.4 Methodological Approach and Considerations

In order to investigate the pre-supposed counteracting and normalization effects of contextualizing idealized body imagery, five experimental studies have been carried out. At several points, we have tried to tackle certain methodological constraints that were signaled in the field of body image and media effects research by meta-studies (see Ferguson, 2013; Holmstrom, 2004; Levine & Murnen, 2009). The justifications for choosing experimental study designs and for using specific target groups and stimuli formats will be explained below, as well as the rationale for including individual predisposing factors as alleged moderators.

Experimental designs. The studies in this dissertation relied on experimental research designs which allowed us to systematically combine media models of various body shapes with texts and verbal feedback to carefully establish causal effects in a controlled environment. Furthermore, such designs allowed us to include proper control conditions in various ways throughout the studies to warrant internal validity (as argued by Holmstrom, 2004; Levine & Murnen, 2009). Such control conditions included contrasting experimental text conditions with images-only or body-irrelevant text conditions, as well as contrasting thin-ideal media models with average sized media models (instead of no-images or

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**Figure 1.1  Negotiated Media Effects Model**

Note. The (+) indicates a positive effect: specific contextualization supposedly reduces negative effects of exposure to ideal-body images, resulting in less negative (or: more positive) body-related outcome measures; the (-) indicates a negative effect: specific contextualization supposedly increases negative effects of exposure to ideal-body images, resulting in more negative (or: less positive) body-related outcome measures.
nonhuman objects), and comparing outcome measures to baseline measures (i.e., pre- versus post-exposure). Furthermore, all studies were characterized by random assignment of participants to the experimental conditions.

**Target group.** Our studies have generally focused on adolescent girls as a target group for several reasons. Most importantly, research has revealed adolescent girls as a most vulnerable group for developing media-induced negative body-related responses, such as body dissatisfaction and eating-disorder symptomatology (e.g., Field et al., 1999b; Hargreaves & Tiggemann, 2004; Groesz et al., 2002; Levine & Murnen, 2009). This coincides with adolescent girls being large-scale consumers of ideal-body depicting media, such as magazines (Field et al., 1999a). Furthermore, adolescents find themselves in a developmental stage in which they are aware of bodily changes and sensitive to comparison with attractive others (Jones & Smolak, 2011). That is, a maturing body leads to experiencing increased self-ideal body discrepancies, causing body image concerns to peak at adolescence (e.g., Clay, Vignoles, & Dittmar, 2005; Jones & Smolak, 2011). This also holds true for Dutch adolescent girls, who show a considerable prevalence of negative body image and weight loss behavior (Bun, Schwiebbe, Schütz, Bijlsma-Schlösser, & Hirasing, 2011). Importantly, unhealthy eating and dieting behaviors during adolescence are predictive for future overweight in adult life: adolescents’ unhealthy eating and weight control behaviors were strongly foretelling disturbed eating behaviors such as binge-eating at later stages in life, and eventually weight gain occurred instead of weight management (Neumark-Sztainer et al., 2006b). Therefore, we rendered especially adolescent girls a group that can profit from the implementation of counteractive measures to reduce the development of body image concerns.

Additionally, one of our studies focused on emerging adults, including men besides women. Reasons for doing so were two-fold: 1.) Although thin-ideal internalization and body dissatisfaction increase during adolescence, it sustains in early adulthood (e.g., Brown & Slaughter, 2011; Ohring et al., 2002), and 2.) Increasingly, not only women but also men were found to suffer from body image concerns (Cohane & Pope Jr., 2000). Moreover, exposure to musculature-ideal imagery was found to prompt body dissatisfaction and lowered self-esteem in men, which was further associated with eating disorder symptomatology (e.g., Agliata & Tantleff-Dunn, 2004, Barlett et al., 2008). Thus, investigating the effects of verbal messages accompanying idealized body imagery on the body perceptions of men as well as targeting an older age group seemed useful.

**Study materials.** To ensure ecological validity, all stimuli in our studies used specific media formats to present idealized body imagery *simultaneously* with contextualizing texts or comments like generally occurs in real-life media exposure, such as when reading magazines (as argued by, e.g., Aubrey, 2010; Dohnt & Tiggemann, 2006; Harrison et al., 2006;
Knobloch-Westerwick & Crane, 2012; Levine & Murnen, 2009). Following suggestions from previous research on label design, the verbal messages in our studies were simple and factual in order to be most effective and understandable, especially because they are presented in a setting that asks for a quick response to information (Cowburn & Stockley, 2005; Feunekes, Gortemaker, Willems, Lion, & Van den Kommer, 2008). Content-wise, we designed our labels to be either informative on media models’ weight status (i.e., anonymous labels or quiz-like statements; also contrasted with warning labels), or as online feedback from ostensible peers, as well as through headlines triggering different motives for comparison with media models. Both informative and warning label types include an informative component on the media models’ weight status (cf. Bushman, 1998), for example ‘this women has a normal weight’ or ‘these models are underweight’. The warning component additionally informs the viewer about the personal risk as a consequence of the viewers’ behavior (cf. Bushman, 1998), for example: ‘Exposure to media models may negatively impact your self-image’. Likewise, we used headlines to evoke different motives for body comparison with media models in another study, such as to improve one’s body, or to appraise one’s body in contrast to those of media models (cf. Martin & Gentry, 1997). In all studies we used short and comprehensible messages or comments (cf. Cowburn & Stockley, 2005).

To further warrant validity in our studies, we included images of media models varying in body size from ultrathin to average-sized. In choosing these images, we pre-tested a variety of media figures. Separate samples of adolescent girls, other than the main studies, rated the models on perceived thinness and attractiveness (e.g., Brown & Slaughter, 2011; Martin & Gentry, 1997). This pre-testing allowed us to assess the media models as seen from an adolescent girls’ point of view and to select variously-sized media models (i.e., from extremely thin to average). Importantly, all media models were of comparable beauty to rule out confounding effects of attractiveness (cf. Halliwell & Dittmar, 2004). In our study materials, the portrayed female models showed clearly noticeable body shapes by wearing bikinis with their bare skin visible. Additionally, the one study that included men besides women presented same-sex models to the participants. Here, male models were portrayed clearly showing their bare-skinned muscular torso (cf. muscularity-ideal; e.g., Hargreaves & Tiggemann, 2009). All main studies again checked the perceived attractiveness and thinness (or fitness) of the models’ body shapes to secure our manipulations to be in the intended directions.

Regarding media settings, we choose magazines, YouTube (i.e., internet), and an application on a mobile device (‘app’) as appropriate media formats to concurrently present the contextualizing messages and ideal-body imagery in our studies. Magazines in particular
have been identified as the most important sources of portraying idealized bodies, while magazine consumption is related to a variety of body concerns in both adolescents and adults (e.g., Jones et al., 2004; Tiggemann, 2003; Morry & Staska, 2001). Hence, in a first study, textual labels were simply added to pictures of variously-sized media models describing their weight status. In another study that compared information labels with warning labels, media models and labels were presented as an integrated unity on a magazine cover page that also included a title and other texts (e.g., ‘Spring 2011’) and related minor images (e.g., beach slippers) that resemble a realistic setting of a girls’ magazine. In an alternative study, the verbal references were adjusted to a slightly older group of emerging adults by increased complexity. That is, here magazine cover headlines were used to subtly express information targeting self-evaluation and self-improvement motives for social comparison as would occur in real-life viewing occasions, such as in magazine stores (e.g., Martin & Gentry, 1997).

Additionally, two of our studies used novel media settings to present the materials. One study combined peer and media influences (e.g., López-Guimèra et al., 2010) in which we transformed the rather anonymous weight labels into supposedly more relevant feedback of peers commenting on media models’ body weight. Because YouTube is a popular setting to share short movies on which viewers can comment, also in reaction to each other (Madden, 2009), screenshots of a YouTube page were developed to combine these normative peer comments with media images. A body image picture was followed by mimicked comments of viewers that reflected on the models’ weight, alternated with neutral comments (e.g., on the weather), using jargon and nicknames as can be realistically found on YouTube (see also Konijn, Veldhuis & Plaisier, 2013). Finally, given today’s popularity of games and mobile devices, as well as their positive effects on health topics, we applied the labeling principles in a mobile device application (e.g., Baranowski et al., 2008; Kato, 2012). This allowed us to evaluate the practical use of our findings for prevention programming (as argued by Levine & Murnen, 2009), and to further explore appreciations of and preconditions for using such a format. In a simple prototype app, quiz-like statements on body shapes accompanied images of bikini models, and correct answers were rewarded.

**Moderators.** To explain the variance in responses to idealized body exposure, some scholars argued that women should not be considered as a uniform entity (Ferguson, 2013; Holmstrom, 2004; Roberts & Good, 2010; López-Guimèra et al., 2010). Preexisting individual difference variables would more accurately explain who specifically is at risk to be affected by idealized body exposure and who is not. Thus, in some studies we considered the role of predispositions in trait levels of self-esteem and appearance schematicity as important moderating factors that, besides the contextualization, direct media effects from ideal-body
exposure. Previous research has indicated that lower levels of self-esteem in girls and women are associated with being susceptible to the negative effects from exposure to (objectifying) media content (e.g., Aubrey, 2006; Tiggemann, 2003). Additionally, appearance schematicity is less well studied than self-esteem, but seems particularly appropriate for studying body image issues (Hargreaves & Tiggemann, 2002). Appearance schematicity reflects the extent to which an individual attributes importance and meaning to one’s appearance (Cash & Labarge, 1996). Those who are high in appearance schematicity are drawn to appearance-related aspects of presented materials and most strongly process appearance-related information, rendering them more susceptible to negative effects of exposure to idealized bodies (Hargreaves & Tiggemann, 2002).

**General procedure.** Given that adolescent girls generally were our group of interest, all studies but one (i.e., Chapter 5) have been conducted in secondary schools and in one primary school (i.e., also including pre-adolescents; Chapter 2). The studies were embedded in media lessons. Generally, procedures were as follows: First, school authorities were approached for participation in the study. School authorities and involved teachers received a letter clarifying that the research was on media use in youth (because most studies focused on girls, the boys in the classes received a questionnaire from an unrelated study, for example on gaming addiction; see Spekman, Konijn, Roelofsma, & Griffiths, 2013). Upon agreement of school authorities, a letter of consent was sent to the parents and given to the pupils in school. Lastly, instructions to the questionnaires in the class rooms were simple and clear to avoid any demand characteristics arising from attentiveness to study aims and procedures beforehand (as also argued by Ferguson, 2013). In doing so, we did our best to rule out confounds and to allocate causal effects of verbal contextualization of ideal-body media portrayals on body-related outcomes. In addition, pupils’ participation was anonymous and voluntarily (i.e., they could withdraw from the study anytime). Upon completion of the questionnaires, participants were debriefed. That is, any questions coming from filling in the questionnaire and participating in our research could be asked in the class rooms and were answered accordingly. Thereafter, the media lesson further explained how models in the media are manipulated and provided more context information about media effects (i.e., by plenary and small group discussions in class). Then, the pupils were again asked for any additional questions and thanked for their willingness to participate. The study that included females and males in emerging adulthood was carried out online (see Chapter 5). For this study, participants were approached through e-mail or at their educational institution and their participation was voluntarily, confidential, and essentially anonymous.
1.5 Outline of the Dissertation

This dissertation presents five experimental studies that have investigated the impact of various verbal messages accompanying ideally-shaped media models on body-related outcome measures. A schematic overview of these studies is presented in Figure 1.2. Chapter 2 describes the first study that aimed to examine the counteracting and normalization effects of specific weight information labels on variously-sized media models in affecting (pre-)adolescent girls’ body perceptions and how they compare themselves with media models ($N = 184$). Furthermore, this study investigated body perceptions among three age groups (9-10, 12-13, and 15-16 years old).

In Chapter 3, the second study further tested the counteracting effect of verbal messages accompanying media models of various weights on body-related perceptions and psychosocial responses among adolescent girls ($N = 178$). However, this time information labels were contrasted with warning labels and no-labels (i.e., images-only). The media models of various body sizes and experimental texts were integrated on magazine covers targeted towards girls. The study further differentiated among girls higher versus lower in trait self-esteem.

Chapter 4 describes a study in which the weight labels were applied by means of peer feedback commenting on media models’ body weight. In this study, adolescent girls ($N = 216$) were exposed to YouTube screenshots in which media models were systematically combined with variations in peer comments, testing normalization and counteracting effects on several body-related perceptions and psychosocial outcomes. Appearance schematicity was treated as a moderator to further differentiate the effects based on individual predispositions.

Along the lines of counteracting and idealization assumptions (resulting from Chapter 4), the study described in Chapter 5 further tested the effects of verbal messages that instigated differential motives for body comparison in a slightly older target group, including both females and males. That is, in an experimental design, emerging adults ($N = 150$) were exposed to social comparison motives induced through magazine cover headlines in testing the impact of such motives paired with ideally-shaped magazine models on body satisfaction.

Chapter 6 describes how verbal anchors by means of quiz-like statements accompanying media models of various body shapes were applied in a ‘body image’-app to further test the counteracting effect. This app was tested among adolescent girls ($N = 206$) on its effectiveness regarding body-related outcomes (summative evaluation), while this study also informed further development and use of such an app (formative evaluation).
Finally, the General Discussion in **Chapter 7** confers the scientific and practical implications of our findings, as well as the strengths and limitations of the present studies in light of recommendations and ideas for future research.

**Figure 1.2** Schematic overview of the five empirical studies underlying the investigation of the predictions from the Negotiated Media Effects Model (see section 1.3).
References


General Introduction


