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GUILT TRIPS: HOW NUDITY IN ADVERTISING ENHANCES PRO-SOCIAL BEHAVIOUR

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Guilt Trips: How Nudity in Advertising Enhances Pro-Social Behaviour

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A thesis submitted in partial fulfilment of the requirements for the degree of Doctor of Philosophy.

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Marloes Heijink

Abstract

The purpose of this thesis was to better understand the effect of using nudity in advertising on feelings of guilt, the moral self and downstream consequences for pro-social behaviour.

First, the Guilt from Nudity in Advertising (GNA) scale was developed and validated by means of four studies. The scale measures three types of guilt (for hurting the self, hurting others, and hurting society) that may occur from viewing nudity in ads.

A series of seven studies then demonstrated that viewing advertisements that contain nudity elicited guilt, compared to viewing ads without nudity. As a consequence, people became more pro-social to rid themselves of this guilt – even though the pro-social behaviour was unrelated to the source of the guilt. It was further demonstrated that guilt for hurting the self mediated the effect of ads with nudity on pro-social behaviour, and not guilt for hurting others or society.

The effect of nudity in ads on pro-social behaviour was attenuated when the nudity seemed appropriate – meaning there was no transgression and thus no guilt –, when participants reduced their guilt through positive self-affirmation first, and when they were asked to imagine watching the ads together with a friend, which gave participants the idea that it was socially acceptable. A higher level of religiosity made the main effect stronger. Lastly, it was shown that the effect of nudity in ads on intention to help a charity was only applicable when the charity had a long-term focus, rather than a short-term focus.

The present research makes several key contributions by offering insights into a novel effect by studying its mechanism and boundary effects. The most important theoretical contribution is the finding that guilt has multiple facets depending on what one is feeling guilty about, and that these types of guilt have distinct attitudinal and behavioural consequences. The newly developed scale allows for better and more accurate measurement of guilt as a multi-dimensional construct.

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INTRODUCTION

1. Introduction

Nudity in advertising is one of the oldest tools used in marketing. One of the first recorded cases of the use of nudity in modern advertising was that of the Woodbury Soap Company. In 1936, the company launched an ad named 'The Sun Bath', presented in figure 1 (Sherrow 2001). A female model in the ad was photographed nude from the back sitting on the edge of a swimming pool. The ad informed consumers that the company's soap was now enriched with 'filtered sunshine' that presumably would allow women to sunbathe without clothing – hence the nudity.

Figure 1: The Sun Bath ad

1.1 What is the issue?

Due to its status as a prime tool of marketing, the use of nudity in advertising is studied extensively within the academic literature. The earliest approach to study reactions to nudity

came from research on pornography, such as the work by Mosher (e.g. 1966, 1961, 1977), who developed the Guilt Inventory Scale that includes a separate dimension of sex guilt. The main finding of relevance to this work is that people can experience guilt when watching pornography.

Previous research within a marketing context has shown that nudity has an influence on both information processing (e.g. the use of peripheral processing rather than central processing, Reichert, Heckler, and Jackson 2001) and downstream cognitive reactions (e.g. reduced memory of the advertising brand, Lull and Bushman 2015). Nudity also elicits arousal with consistent gender effects (Reichert 2002).

Recent work within consumer behaviour looked at the use of gratuitous sex appeals in advertising (Sengupta and Dahl 2008; Dahl, Sengupta and Vohs 2009). This series of studies found that consumers have negative reactions towards these types of appeals. However, under constrained processing conditions, men on average have a more positive reaction to sex appeals than women do. These differences in more positive gut-level-reactions and more negative thinking-reactions suggest that watching gratuitous sex appeals involves corrective action during conscious processing.

These pieces of evidence, the existence of sex-related guilt and corrective actions when watching gratuitous sex appeals, suggest that the use of sex in advertising touches on a moral dimension. Pornography and sexual appeals are not identical to the use of nudity in advertising, because nudity is not by definition related to sex. However, the use of nudity in advertising may share underlying moral concerns that people have when watching porn or sex appeals.

1.2 Why does it matter?

The purpose of this thesis is to better understand the effect of using nudity in advertising on feelings of guilt and people's moral perception of themselves. It is important to understand this effect because of three main reasons: ads with nudity are highly prevalent in today's marketing campaigns, the increased use of the internet has weakened the ability of regulators to limit the use of and exposure to nudity, and the existing exceptions in the regulatory environment for charities, who can use nudity in advertising as long as it serves to raise awareness.

Nudity is so prevalent that a content analysis of mainstream magazines showed that up to 40% contained women dressed in revealing or no clothing at all (Reichert 2003). There are plentiful examples of the use of nudity in advertising. In 1997, Abercrombie and Fitch, an

American clothing retailer, started publishing a quarterly 'magalog' (magazine-style catalogue) that contained semi- and full nudity and was criticized heavily in the early 2000s before being discontinued (The Wall Street Journal 2002). The models were male, female, and mixed, and many of them posed in a suggestive way. The sealed magalogs contained teaser photos on its covers and were sold for $7. Several examples are featured in figure 2. During the magalog marketing campaign, A&F increased its revenues from $50 million in 1992 to over $1.5 billion in 2001 (Reichert 2003). Other examples of advertising campaigns with nudity are by American Apparel, Pepsi Raw, and charity PETA's 'I'd Rather Go Naked Than Wear Fur'-campaign.

Figure 2: Pages from Abercrombie and Fitch's Magalog
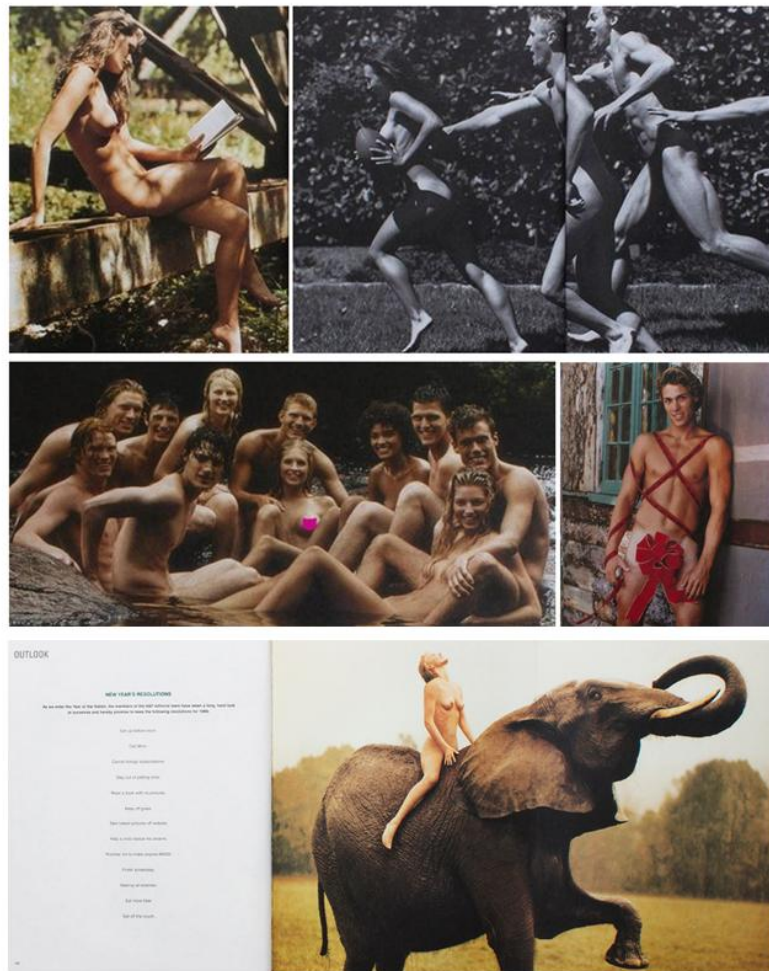
Rules that govern nudity in advertising have become less relevant in current society because of the increased use of the internet. According to Business Insider (2017), the average number of minutes spent consuming television and internet per day in the world is expecting

to converge in 2019, if the current trend continues. A development that has accompanied the rise of the internet is that existing regulations regarding nudity in advertising are less able to regulate online ads. The internet crosses jurisdictions and regulators have more difficulty determining which legal framework ought to be applied. It is therefore far more likely that inappropriate material such as pornography and – to some extent – nudity is seen by a larger audience, which could include children. One troubling statistic is that 70% of children in the United States between 7 and 18 years old have accidentally encountered online pornography, often through a web search while doing homework (Business Insider 2017). Due to the increased prevalence of nudity on the internet, it is important to understand its effects on later behaviour.

A third reason to examine the use of nudity in advertising is that charities may use any positive consequences to their advantage. Charities – at least on online platforms such as Facebook or Twitter – are exempt from the platforms' ban on nudity and other offensive material so long as this material is used for the purpose of raising awareness. Many charities have used nudity or sexual content in their ads, such as Mel B's topless photo series for CoppaFeel, the 'Fashion Targets Breast Cancer' campaign, and videos on YouTube for Male Cancer Awareness that feature male genitals (Independent 2012). Understanding the effects of using nudity in advertising can help charities better achieve some of these aims.

1.3 This thesis

In the project, it will be investigated whether – and under what circumstances – using nudity in advertising elicits a sense of wrongdoing thus heightened guilt, and what the downstream consequences are. The specific downstream consequence of interest in this project is the intention to be more pro-social, which is a well-known consequence of feeling guilt (e.g. Baumeister, Stillwell and Heatherton 1994) and an antidote for feeling immoral (e.g. Sachdeva, Iliev and Medin 2009).

The central research question is: Does the use of nudity in advertising elicit guilt, and do people become more pro-social to rid themselves of this guilt – even if the pro-social behaviour is unrelated to the source of the guilt?

In short, this thesis finds that the answer is 'yes'. People are motivated to uphold a moral self-image in order to maintain a high level of self-esteem and self-worth. Nudity in advertising is considered unethical and when viewing it, people feel responsible for this transgression. This responsibility makes people think they have failed to uphold their internal standards of morality and they feel guilt as a reaction. If those that feel guilt for having hurt their moral

self are given the opportunity to be pro-social, they will take this as they believe it will help them restore their sense of morality.

Three specific types of consumer guilt were included in this research (based on Dahl, Honea and Manchanda 2003): guilt for hurting the self, guilt for hurting the others, and guilt for hurting society in general. The guilt that is relevant to watching nudity in advertising and subsequent pro-social behaviour is guilt for hurting the self. When feeling guilt for hurting the self, people are motivated to improve their self through reparative actions. Participants who viewed ads featuring nudity and reported feeling this type of guilt in the studies of this thesis were, for example, more likely to volunteer for an additional survey in an experiment, had a higher intention to help a charity, or wanted to do more benevolent activities in the near future.

The effect of nudity on pro-social behaviour was eliminated when the nudity seemed appropriate – meaning there was no transgression and thus no guilt –, when participants reduced their guilt through positive self-affirmation first, or when they were asked to imagine watching the ads together with a friend, which seemingly gave participants the idea that it was socially acceptable to watch this sort of ad. The level of religiosity and whether a charity has a short- or long-term focus were also found to be relevant to the research question.

1.4 Contributions

The present research makes several key contributions. First, a new scale was developed (the GNA scale) to measure guilt after watching offensive advertising. This scale was validated and used in later experiments to demonstrate a mediating role of guilt. The scale is based on three types of guilt which were shown to be substantially different constructs. The scale can be used in future research about offensive advertising and guilt.

A related contribution of this project is that guilt for hurting the self was identified as the specific type of guilt that mediated the relationship between nudity in advertising and pro-social behaviour. While most previous studies investigated guilt as a singular concept, this thesis suggests that guilt may have multiple facets depending on what one is feeling guilty about, and that these have distinct attitudinal and behavioural consequences.

Lastly, this thesis shows that nudity in advertising may have far-reaching consequences for the perception of the moral self and behaviour related to this perception, particularly pro-social behaviour. The moderators included in this study provide evidence for this. The first moderator, nudity appropriateness, demonstrates that the guilt felt from seeing nudity in ads

is related to perceptions of its ethicality. Moreover, when one affirms the moral self, the main effect is mitigated.

1.5 Roadmap

This thesis reports the research project that was aimed at answering the research question: Does the use of nudity in advertising elicit guilt, and do people become more pro-social to rid themselves of this guilt – even if the pro-social behaviour is unrelated to the source of the guilt?

First, the core constructs are defined and the relevant literature is reviewed. Second, the conceptual framework and reasoning for the theoretical model is presented. The methodology and results chapter is divided into two series of studies: four studies for the development of the GNA scale and the remainder of the studies for testing the main theory. The thesis concludes with an extensive discussion.

LITERATURE REVIEW

2. Literature review

2.1 Definition of nudity

Following its popularity as a marketing tool, nudity has been a hot topic for academic researchers. Nudity in marketing has been studied as a form of sex in advertising, which was defined by Reichert (2002, p. 243) as "mediated messages (i.e. television commercials, magazine ads) containing sexual information with the persuasive purpose of selling branded goods." The types of sexual content are body display, sexual behaviour (e.g. kissing), contextual factors (e.g. location, filming techniques, lighting), sexual referents (e.g. risqué phrases or words with multiple meanings), and sexual embeds and symbolism (e.g. subliminal or objects with sexual shapes).

The specific type of sexual content of interest in this study is body display, which will be referred to as nudity. Nudity does not (necessarily) include any form of sexual behaviour or suggestive posing. This form of sexual content in ads was chosen in this study for two main reasons. First, having a narrow definition of nudity allows for more detailed theoretical predictions and less ambiguous manipulations in experiments. Second, body display in combination with other sexual content quite easily crosses into the territory of pornography, which is unlikely to occur in any real-life advertising. Pure nudity – the display of naked bodies – is far more likely to occur in real ads, making results presented in this work more relevant to practitioners.

2.2 Review of literature on nudity in advertising

This part of the literature review will focus on research that looks into the emotional or affect-related consequences of watching nudity, with an emphasis on guilt. Most of the older research on affect studied pornography and not advertisements, whereas later studies that focused on nudity in advertisements have generally neglected affect. Each stream of literature will be reviewed in turn.

2.2.1 Literature on pornography and affect

Mosher (1966) developed a scale to measure three different types of guilt: sex guilt, hostile guilt, and morality-conscience guilt. As their names indicate, these types refer to guilt experienced when faced with sex, aggression, and moral transgressions, respectively. Sex guilt specifically relates to a (potential) transgression against internalized standards of proper

sexual conduct (Mosher 1966). The sex guilt scale has been the most popular of the three subscales and is still used in current literature (e.g. Janda and Bazemore 2011).

One use of the scale was to gauge reactions to pornographic and other nude materials. Love, Sloan, and Schmidt (1976) showed that participants high in sex guilt viewed significantly less pornography than those with medium or low levels of sex guilt. Similarly, Schill and Chapin (1972) found that participants who were higher in sex guilt chose and spent less time looking at erotic materials. Moreover, people high in sex guilt liked sex-related jokes less (Schwartz 1972) and found sexual stimuli less arousing (Ray and Walker 1973). In general, the research on the Mosher sex guilt scale strongly suggests that there is a correlation between the degree of dispositional sex guilt and the viewing of sexual stimuli. In other words, people who tend to feel guilty about sex spend less time looking at pornographic material.

Brown, Amoroso, and Ware (1976) did not administer the sex guilt scale but instead studied the emotions associated with watching pornography. About three-quarters of their male participants found the experience sexually arousing, enjoyable, and/or pleasant, where 38% reported feeling envy. Regarding the negative emotions, 6% felt guilt, 2% anger, 5% shame, 9% shock, and 21% felt disgusted. After watching pornographic materials, there was an increase in sexual behaviour on the day of viewing the slides, but not in the week following. The authors mentioned that even though participants not always reported it, the stimuli evoked a defensive reaction that caused delayed arousal reactions (i.e. masturbation or sexual intercourse later that day), rather than immediate reactions.

2.2.2 Literature on nudity in ads and information processing

Besides studying pornography, researchers have studied the existence of nudity in advertisements from an ethical, cognitive, and arousal-based perspective. LaTour and Henthorne (1994) studied the ethical perceptions of mild and strong sexual appeals and showed that ads with strong sexual appeals were perceived as significantly less just, morally acceptable, fair, and generally less ethical than ads with mild sexual appeals. It is important to note that the study did not find a gender effect; men and women had equal amount of concern about the ethics of using sexual appeals in advertisements.

Lull and Bushman (2015) did a meta-analysis of cognitive reactions to violent and sexual media. The basic finding was that brands advertised with sexual advertisements were evaluated less favourably, although there were no significant effects on brand recollection or purchase intention. The analysis did show that as explicitness of the sexual ad increased, the viewer's memory, attitude, and buying intentions decreased.

Within a social marketing domain, Reichert, Heckler, and Jackson (2001) studied persuasion of sexual appeals in self-help ads, such as quitting smoking. The major finding of the study was that sexual appeals were more persuasive than non-sexual appeals across 13 different social topics. The underlying cause for this was that sexual content reduced cognitive elaboration (e.g. coming up with counterarguments) and more attention getting, likeable, and dynamic.

2.2.3 Literature on sexual content in ads and arousal

The third major area of research about sexual content in ads focused on arousal. LaTour, Pitts, and Snook-Luther (1990) showed that nudity elicited arousal, which in turn influenced cognitions. The authors made a distinction between different types of arousal. Nudity in ads increased general activation (active, energetic) and high activation (intense, jittery). On the other hand, it decreased deactivation (calm, quiet). All three types of arousal mediated the effect of the ads on ratings of distinctiveness, appropriateness, interest, and offensiveness of the ad.

The authors also found that neither gender nor age moderated the effect of nudity on ad cognitions. The explanation for this was that arousal absorbed most of the effects of age and gender, and that it was arousal that was the largest determinant of later cognitions.

Reichert (2002) summarized the literature on nudity-elicited arousal as dependent on valence: if there is arousal combined with positive affect, there is a positive reaction to the ad, but if there is negative affect, there is a negative reaction. However, he wrote that beyond this intuitive effect, researchers do not fully understand the emotional responses evoked by sexual information in the context of sex in advertising (p. 259), probably due to the minimal amount of research on nudity-elicited emotions.

2.3 Definition of guilt

Guilt refers to "the painful experience of regret, remorse, self blame, and self-punishment experienced upon committing or contemplating committing a transgression" (Lascu 1991). Guilt is thus a negative emotion with a medium to high level of arousal that arises when people "wish they had behaved differently or could somehow undo the bad deed that was done" (Tangney et al. 1996).

Employing the structure put forward by appraisal theory (Roseman 1991, Roseman 1996, Smith and Ellsworth 1985), guilt can be classified as a negative emotion that is motive-

inconsistent, self-caused, has an appetitive stimulus and is characterised by a high level of controllability. The classification of guilt and other emotions is displayed in figure 3.

Figure 3: Classification of emotions (appraisal theory)

		Positive emotions Motive-consistent		Negative emotions Motive-inconsistent		
		Appetitive	Aversive	**Appetitive**	Aversive	
Circumstance-caused	Unexpected	Surprise				*Controllability*
	Uncertain	Hope		Fear		Low
	Certain	Joy	Relief	Sadness	Distress	
	Uncertain	Hope		Frustration	Disgust	High
	Certain	Joy	Relief			
Other-caused		Liking		Dislike		Low
				Anger	Contempt	High
Self-caused		Pride		Regret		Low
				Guilt	Shame	**High**

2.3.1 Theoretical perspectives on guilt

There is some disagreement about the exact nature of guilt – whether guilt is a social emotion or a more self-conscious one.

Baumeister, Stillwell and Heatherton (1994) posed that guilt is elicited when someone has caused harm, loss, or distress to a relationship partner and is therefore a social emotion that helps regulate society. This relationship partner can be anyone ranging from close others to strangers, and even society as a whole through group membership. The authors noted that although guilt is largely a social emotion, this does not mean that guilt cannot be experienced in isolation. For instance, survivor guilt is experienced when one survives where others do not.

The second theoretical perspective on guilt stems from the work of Freud in the 1930s, who believed that guilt is a result of a conflict between the ego and superego (Weiss, Sampson, and O'Connor 1995). The purpose of guilt, according to this perspective, is to keep one's

behaviour in line with morals standards and to suppress impulses caused by the id. The proposition that guilt is a moral emotion has received support within the literature. For example, Keltner and Buswell (1996) found that guilt can be elicited when a person believes they failed at a duty or goal, failed at self-regulation, or were dishonest.

2.3.2 Three types of guilt

In order to reconcile these two definitions, this thesis will use the typology of guilt proposed by Dahl, Honea, and Manchanda (2003). The typology has three major advantages within the context of this thesis: all types of guilt in the typology are relevant to consumers, the types of guilt identified have clear and distinguishable causes, and it allows for differentiation of the guilt reactions in response to ads.

Dahl, Honea, and Manchanda (2003) investigated experiences of consumer guilt. They asked participants to write out situations in which they felt guilt in relation to a consumption episode and coded these experiences. The descriptions were then divided according to source into three types of guilt: guilt for hurting the self (i.e. the 'moral guilt'), guilt for hurting another (i.e. one form of 'social guilt'), and guilt for hurting society at large (i.e. another form of 'social guilt'). The assumption of this typology is that all types of guilt are the same physical experience, but there are different antecedents, cognitions, and consequences associated with each type.

Guilt for harming yourself is felt when you fail to regulate your behaviour or reach standards that you have set for yourself. Guilt occurs when you perceive a gap between your actual behaviour and the behaviour your ideal self would exhibit. Dahl, Honea, and Manchanda (2003) further subdivided this type of guilt whether the behaviour was an action or inaction on the part of the consumer. Many actions that resulted in guilt for hurting the self by failing to meet personal standards were along the lines of buying products harmful to one's health and purchasing frivolous, expensive products like clothing, jewellery, make-up products, technological products, and entertainment. A specific example was feeling guilty after buying a 'box of cheeseburgers' and eating them while on a diet. Guilt for hurting the self through inaction was more commonly experienced by not enough consumption, such as not going to the gym while having purchased an expensive gym membership.

Guilt for harming others is feeling guilt occurs when one's action or inaction has a negative impact on another person. Some examples mentioned by Dahl and colleagues were disregard for maintaining relationships, unintended harm to others, or failing to meet a need of the other. In addition to a categorization of inaction and action, there was a distinction between

actions to pertain to a close or to a distant other. An example of a direct action causing harm to a distant other is being rude to a pushy salesperson, or not buying a CD in support of an artist. Guilt after inaction was felt for instance by not tipping after excellent service or not buying from children selling cookies door-to-door.

Guilt for hurting society is feeling guilt for transgressions of societal standards of appropriate behaviour. The difference between guilt for self and guilt for society is that guilt for self occurs when failing personal standards, whereas guilt for society is about failing societal standards. Sometimes these two standards overlap and the two types of guilt would be indistinguishable, but when personal standards diverge from societal standards there is a distinction between the two types. The authors created the subtypes purposeful action and innocent violation for this type of guilt. Examples of purposeful violations of society are throwing away recyclable goods or buying imported (rather than national) products. Innocent violations are similar to purposeful violations except for the degree of control of the behaviour, such as having to throw away recycle goods because one's work place does not have recycling facilities. Violation of societal standards through inaction would be not using one's money to donate to a good cause or not giving second hand clothing to needy people.

2.4 Review of literature on guilt

In this section, the literature on guilt will be examined to address two main topics: the role of guilt in judgments of morality (and where possible, moral judgments of sex) and the way in which guilt has been measured.

2.4.1 Guilt and morality

Montada and Bierhoff (1991) proposed that morality can be affected by guilt in at least two ways. First, feelings of guilt within a society can be interpreted as a cue that there is injustice in distribution of resources that needs to be resolved within the system. Second, impression management can be directed at improving one's image in the eyes of others or improving the image you have of yourself.

The injustice perspective states that when people observe others being unfairly disadvantaged and they personally benefit from this situation, they become motivated to compensate for this disadvantage (Montana and Bierhoff 1991). This compensation can be as small as providing comfort to the victim to as large as nation-wide protests and advocacy work. Guilt that is involved in this type of situation has been termed existential guilt. Existential guilt may be

felt when one's advantages are not perceived as fair compared to the disadvantages of others (Montada, Schmitt, and Dalbert 1986).

Perceptions of distributive justice can be a motivator of pro-social behaviour. A series of experiments by Miller (1977) showed that participants were more likely to participate and spend more time participating when their payment was equally shared with a disadvantaged family through a charity, compared to participants who received more or less than the victim (cases of injustice).

The second potential association between guilt and morality is that people have a desire to present themselves as a moral person to those around them. A great example of this is the going-green-to-be-seen effect proposed by Griskevicius, Tybur, and Van den Bergh (2010). This effect occurs when people buy pro-environmental or green products because these products are a signal of their altruistic intention, which is seen as a positive and status-giving attribute. The effect only occurred for public consumption, suggesting strongly that the underlying motivation is public impression management. In another example, White and Peloza (2009) showed that self-benefit appeals for charitable donations were less effective in public situations than other-benefit appeals. Interestingly, this pattern reversed in private situations where the self-benefit appeal became more attractive. The authors showed that the effect is moderated by normative expectations and driven by a desire to manage impressions of the self in public.

The exact role of guilt is less clear in this explanation. The basic idea of this hypothesis is that guilt is felt because of a violation of public moral standards. People would then be motivated to repair this violation, but only so far as these norms are public – not in private. According to this explanation, people use pro-social actions as a signal of repentance and remorse to their peers, rather than as true reparative actions to undo damage done.

Peloza, White, and Shang (2013) proposed that while impression management is a part of the story, there is a parallel process of anticipated guilt caused by violation of self-standards. They proposed that people have a desire both to uphold one's social image as moral (symbolization) and to live up to one's self-standards (internalization), where only violation of self-standards gives rise to anticipated guilt. Peloza and colleagues (2013) showed that when self-accountability is made salient, people were more likely to choose products with ethical attributes than to choose products promoted with various other self-benefits. They found that this preference stemmed from the activation of anticipated guilt associated with the possible selection of the non-ethical products. In other words, because people think they will feel guilt when choosing the non-ethical option, this option becomes less appealing.

2.4.2 Consumer guilt

Guilt plays an important role in the purchasing and consumption process. One of the most comprehensive discussions of consumer guilt is by Lascu (1991), who defines this type of guilt as "an affect triggered by the anxiety a consumer experiences upon the cognition that he is transgressing a moral, societal, or ethical principle. The transgression can be purchasing a product, service, idea, or experience (i.e., a brand that does not abide by quality standards), or not purchasing a product prescribed by moral, societal, or ethical principles". Lascu (1991) argues that consumer guilt is a distinct emotional experience that has implications for persuasion, guilt appeal effectiveness and motivation.

This thesis does not adopt consumer guilt as a construct of interest, because there is no indication that it is different from guilt at a more general level. The basis for consumer guilt adopted by Lascu (1991) is the concept of 'aroused guilt'. Aroused guilt was a type of guilt identified by Ghingold and Bozinoff (1982). They looked at the emotional reactions to guilt-arousing marketing. The specific reactions were guilt, joy, fatigue and annoyance. The results showed that guilt could be elicited by this type of appeal and that guilt is distinct from the other three reactions. The authors, however, did not distinguish 'aroused guilt' from 'normal guilt'. As such, there is no evidence to say that consumer guilt is different from any other type of guilt – although it is of course possible that the two types are distinct. The main difference between consumer guilt and the emotion thus appears to be the context of consumption in which the emotion is elicited.

The three types of guilt of interest in this project – guilt for hurting the self, others, or society – were studied in previous consumer research, albeit not always under these names. Guilt for hurting the self has been connected to failure of self-regulation (e.g. Cole and Sherrell 1995) and to product choice, such as feeling guilt when opting for more hedonic products (Kivetz and Simonson 2002). Guilt for hurting others was the construct of interest for several studies: Dahl et al. (2005) found that people can feel guilt towards a salesperson, Soman and Cheema (2011) showed that people can feel guilt when they think they cannot provide well enough financially for their children, and Carrigan and Szmigin (2006) found that people can opt to not buy unhealthy food because it may signal low levels of care.

2.4.3 Measurement of guilt

In this project, three different types of guilt are distinguished for which no quantitative measures exist. Therefore, one of the purposes of this thesis is to develop a measure of the three types of guilt.

Many past articles on guilt included some form of measurement of the construct guilt. However, for the purposes of this review, the focus will be on those scales that were specifically developed and validated to measure guilt. In other words, scales that were not validated or only used in a small number of research papers were omitted from this section. There are two types of measures that have been developed to assess guilt: trait guilt and state guilt. Trait guilt concerns a person's general disposition to feel guilt and should not be affected by situational variables. State guilt is the experience of the emotion itself that is brought on by a specific context. Trait guilt is considered a feature of a personality whereas state guilt is something that can be experienced by anyone if the situations allows.

Although the main interest of this thesis is state guilt, most validated measures of guilt were trait guilt scales. One of the oldest trait guilt scales is the Mosher Guilt Inventory (Mosher 1961), which was discussed earlier. The most recent version (the RMGI, Mosher 1998) scale can be administered in three formats: a sentence-completion task with open-ended responses (original), a true-false format where participants judge pre-conceived ends to the sentence as being true about themselves, and a forced-choice format. For all three formats, participants read short scenarios that may involve guilt and reply with what they would do/feel/think in that situation.

Several trait guilt scales were developed in the early 1990s. Tangney (1992) investigated the links between guilt, shame, and psychopathology by comparing responses to two commonly used scales to measure guilt: SCAAI and TOSCA. The SCAAI (Tangney et al. 1988) and TOSCA (Tangney et al. 1992) both require participants to read several scenarios and describe their response to this scenario in terms of guilt, shame, externalization, and alpha pride. In the SCAAI, all scenarios are negative and participants rate the likelihood of doing/thinking each of the four possible responses. The TOSCA has both negative and positive scenarios and requires a forced choice between each of the likely outcomes, which also includes beta pride in addition to the four reactions of the SCAAI. To analyze the data, subscales are created by averaging the scores for each type of reaction (i.e. guilt, shame, externalization, pride, and beta pride) as an indication of one's proneness to that reaction. Studies throughout the

literature, including Tangney (1992), have demonstrated that both scales are psychometrically sound.

Harder and Zalma (1990) compared yet two different scales to measure trait guilt: the PFQ2 and the ASGS. The PFQ2 (Harder and Lewis 1987) and ASGS (Hoblitzelle 1982) both ask participants to rate the frequency with which they feel certain adjectives related to guilt and shame in their daily life. The difference between the scales appears to be the adjectives used: the PFQ2 seems to use more 'basic' words (e.g. stupid, regret, blushing) than the ASGS (e.g. abashed, reproached, mortified). The study concluded that both scales are psychometrically sound but that the PFQ2 was a superior measure of trait guilt than the ASGS.

The most recent scale to measure trait guilt was developed by Cohen, Wolf, Panter, and Insko (2011). The authors argued that a new measure of trait guilt was necessary because recent theoretical developments of the guilt and shame constructs suggested that guilt and shame are affected by the distinction between the public and private domain, and that there is a difference between emotional and behavioural responses to personal transgressions involving the two moral emotions. The GASP scale, unlike the scales mentioned above, was designed to specifically address these two issues while still measuring guilt- and shame-proneness. It followed the same scenario-based design as the TOSCA and SCAAI scales. The two subscales for guilt measure negative behaviour-evaluations and repair tendencies of private transgressions, whereas the two shame subscales measure negative self-evaluations and withdrawal tendencies of publicly exposed transgressions.

Kugler and Jones (1992) developed a scale that was designed to measure trait guilt, state guilt, and moral standards through agreement with statements. Trait guilt was measured with items such as 'I often have a strong sense of regret' and 'guilt and remorse have been a part of my life for as long as I can remember'. State guilt was assessed using items like 'Recently, I have done something that I deeply regret' and 'at the moment, I don't particularly feel guilty about anything I have done'. Items measuring moral standards related to the adherence to general moral standards beyond specific behaviours, and were measured with items such as 'I believe in a strict interpretation of right and wrong' and 'I believe there are situations where the ends justify the means'.

The authors found no evidence that there was a distinction between (their measurement of) trait and state guilt. It was argued that this could have been caused by a high correlation of trait and state guilt in general. However, when examining the items, it appears that their

measure of 'state' guilt is about trait guilt, rather than feeling state guilt in that particular moment because of a specific reason.

Tangney (1996) described two scales to measure state guilt, including the 'guilt state' subscale proposed by Kugler and Jones (1992) and the SSGS (Marschall, Sanftner and Tangney 1994). The latter scale measures state guilt with items like "I feel remorse, regret", but the author herself noted that the main issue with this scale was that it does not explicitly refer to specific behaviours and it is thus unclear whether it truly measures state guilt rather than a more generalized sense of guilt (i.e. trait guilt). She argued that the main issues with scales measuring guilt is that they rely on participants' ability to differentiate between feelings and verbalizations of guilt and shame, are largely independent of context and therefore may not measure state guilt, and are likely to tap into a combination of guilt and shame.

Lastly, Richins (1997) developed a scale to measure general emotional reactions to advertisements which included one item for guilt. The scale used agreement with feeling an adjective ('guilt') as measurement, similar to other scales used within the consumer behaviour literature that studied guilt. The item for guilt was found to be dependent on context, which supports the idea that the measurement of state guilt should refer to the context in which the guilt arises. Richins (1997) wrote that his scale was developed as a starting point for more specific and tailored scales for consumer research, not as the final measure. Moreover, the use of a single adjective to measure guilt assumes that respondents are aware of the definition of 'guilt' and can correctly identify feelings of guilt (vs. for example, shame).

To summarize, previous measures of guilt have largely focused on trait guilt. Trait guilt scales are not suitable for use in the present study as the present study is about state guilt. Moreover, as most trait guilt scales involved scenarios, they cannot be converted or adapted into state guilt scales to be used in the present research. The state guilt measures that have been validated (Guilt Inventory, Kugler and Jones 1992; SSGS, Marschall, Sanftner, and Tangney 1994; Richins 1997) are also unsuitable for the present research because they do not measure guilt that arises from a specific action. However, they can be used as a base for developing a measure that specifically measures guilt arises from advertisements, as is the objective of this part of the thesis. Specifically, the format of indicating agreement with statements proposed by the Guilt Inventory and the SSGS was adopted because it is the most commonly used approach in this literature and it allows for inclusion of specific actions

within the wording of the statements (e.g. 'I feel remorse' becomes 'I feel remorse about – event –').

2.5 Definition of pro-social behaviour

Pro-social behaviour is a broad term referring to any act that promotes the well-being of others. This type of behaviour can include direct gestures of reparation and restitution, apologizing, admission of blame, or more indirect action such as making a confession, contributing to charity or volunteering, being reliable and responsible in day-to-day life, and in general being more honest, caring, and encouraging of a common spirit (Estrada-Hollenbeck and Heatherton 1998).

The most organised forms of pro-social behaviour are donating to and active involvement with a charity. The nonprofit sector is an important sector in most developed economies. The National Center for Charitable Statistics collected the most recent figures for the nonprofit sector in the United States (NCCS 2012). In 2016, there were over 1.5 million tax-exempt organizations including over 1 million public charities, about 100,000 private foundations, and almost 400,000 other types of nonprofit organizations like chambers of commerce. The salaries and wages of those working in this sector constituted 9.2% of the total received within the US and the sector itself made up 5.3% of the national GDP in 2014. In addition to the massive size of the nonprofit sector, the average American is highly involved with charities. One in four Americans reportedly volunteered for a charity between 2010 and 2014, and individual donations in 2014 reached $258 billion.

Charities are established to address social needs, and these can range from animal shelters to religious community management, to disaster relief, and to activism to change laws. People can make donations directly to the charity, a collection of charities through another organization, or by purchasing products that are associated with a good cause. Resources other than money can also be donated. Examples of this are offering handmade blankets to a homeless shelter, offering one's time as a volunteer at the local church, spreading a charity's message through social media, join in a protest for freedom of speech, or signing petitions to change laws on abortion.

In addition to formal, organized pro-social behaviour, people can help others in informal ways. You can share some food with a disadvantaged family down the street, you can help a lost tourist with directions, offer your phone to a colleague who has forgotten hers, or help a child at a local school with their homework. Pro-social behaviour can take many forms and is a common element of daily life.

2.6 Review of literature on pro-social behaviour

The literature reviewed in this section focuses on two relevant aspects: the motivation underlying pro-social behaviour meant as a general introduction to the construct, and the role of emotions in pro-social behaviour which is related to the present research.

2.6.1 Motivations underlying pro-social behaviour

One of the oldest explanations for pro-social behaviour stems from the theory of evolution, which proposes that people who displayed pro-social predispositions had more evolutionary success. Penner and colleagues (2005) describe the three main reasons for this evolutionary success. First, evolutionary success is determined by transmission of genes, which includes not only the self but also kin. People thus have a motivation to help their kin because it secures their own genes. The second explanation is reciprocal altruism, which occurs when one is helpful if they expect that the other will be helpful at some point in the future to return the favour. The final explanation is that groups with larger numbers of altruists have an advantage over groups that have more selfish individuals, meaning that – over time – groups with altruistic tendencies have greater chances of survival.

If evolutionary theory is right, there should be evidence for this in our biological make-up. As such, scientists using neural imaging techniques have attempted to capture the biological underpinnings of helping behaviour. Preston and de Waal (2002), basing their work on the concept of empathy, proposed that when faced with another person's emotional state, the brain automatically activates representations of that state (through 'mirror neurons'). In other words, when you see someone suffering, you feel that same experience through your activated representations in your own body. This sharing of experience can generate empathy, a main motivator of pro-social behaviour.

Another stream of research, developmental psychology, studies the origins of pro-social behaviour by investigating the occurrence of this behaviour in children. Eisenberg and her associates (see Eisenberg 2000) have been the main driving force behind this research, finding that children with more positive emotionality tend to be more pro-social, that children who are sad or anxious but not overwhelmed by these emotions are also more pro-social, and that empathic and warm mothers tend to have more pro-social children (Zhou et al. 2002). This research generally suggests that while some of pro-social behaviour occurs for biological reasons, parenting has a substantial influence on this behaviour as well.

Personality research has proposed that several personality factors also affect pro-social behaviour. For example, the Big Five factor Agreeableness increases pro-social behaviour under certain circumstances (Graziano et al. 2007). Penner et al. (1995) even created a description of the 'prosocial personality' and suggested that this type of personality has thoughts and feelings like a sense of responsibility and susceptibility to other-oriented empathy, and has a perception of the self as a helpful and competent individual.

These different streams of research combined suggest that pro-social behaviour is driven by inherent factors, by our parenting, by our personality, and by the environment we live in. The causes of pro-social behaviour are complex and numerous, making this topic a rich ground for research.

2.6.2 Pro-social behaviour and positive emotions

This thesis is focused on the emotional experiences associated with pro-social behaviour, particularly guilt. Previous research has focused on both mood and emotions as a motivator of pro-social behaviour.

One of the oldest findings within this literature is that a positive mood makes people more helpful. Carlson, Charlin, and Miller (1988) combined six existing theories on why positive mood would increase helping and studied all six simultaneously. The authors found that a positive mood increases salience of one's positive reinforcements needs. This is through a larger focus on the self and an absence of competing motivations like desire to alleviate guilt. Moreover, a positive mood highlights the positive benefits one can obtain from the helpful task by general priming of positive experiences in memory, cognitions that are specifically pro-social (e.g. better social outlook), increased perceptions of effectiveness of task, and the absence of extreme positive affect (i.e. strong emotions) that may hinder helping.

An interesting study by Genevsky, Vastfjall, Slovic, and Knutson (2013) investigated the identifiable victim effect – people help victims more when there is identifying information about them – using both behavioural and neural experiments. They showed their participants photographs versus silhouettes of orphans, and found that positive arousal (captured by both self-report and through neural imaging measurement) mediated the relationship between the type of photograph and higher donations to the orphans.

Several specific positive emotions have been studied in terms of their influence on pro-social behaviour. For example, Cavanaugh, Bettman, and Luce (2015) investigated the role of four positive emotions: love, hope, pride, and compassion. The results showed that these emotions encourage pro-social behaviour, but not always in the same way. All four emotions increased

pro-social behaviour towards close others, but only love increased pro-social behaviour towards distant others and international charitable organizations. The authors suggested that love differs from the other three emotions in that it fosters connectedness with other people and makes people 'broader' (i.e. more inclusive). Pride, hope, and gratitude do not have this broadening quality and thus only affect close others that are already connected to the individual.

Admiration and awe only have one research paper devoted each, so research is limited for these two emotions. Aaker, Vohs, and Mogilner (2010) found that when charities are perceived as both warm and competent, people feel admiration, which enhances the intention to donate. Feeling admiration for a charity is thus a motivator of pro-social behaviour. Awe is an emotional response to perceptually large stimuli that go beyond the current frame of reference (Piff et al. 2015). Awe leads to smaller perceptions of the individual self (i.e. enhances selflessness), which increases pro-social behaviour.

2.6.3 Pro-social behaviour and guilt

Empirical findings from as early as the 1960s suggest a positive relationship between guilt and pro-social behaviour. When people observe suffering they are likely to feel guilt – especially when they feel responsible for the suffering – and this makes them more helpful. This effect has been replicated in many studies (for an overview, see Salovey and Rosenhan 1989), and even held when the victim was a rat (Regan 1971). Based on this early literature, Baumeister, Stillwell, and Heatherton (1994) concluded that guilt enhances pro-social behaviour, particularly when the guilt originated from a direct interpersonal transgression and the individual has the opportunity to correct this transgression through pro-social behaviour. A major problem with this conclusion, however, is that many of the studies mentioned did not provide direct evidence for the existence of guilt but rather inferred or proposed it as the mechanism, as noted by the authors.

The basic idea underlying this stream of research is that guilt motivates individuals to engage in direct and indirect actions to resolve guilt (Allard and White 2013). Direct actions are targeted at the victim of the transgression or the damage done. Some examples of this type of relationship-mending behaviour are gestures of reparation and restitution, making amends or apologizing, expressing guilt or remorse to the harmed individuals, and admission of blame (Estrada-Hollenbeck and Heatherton 1998). Indirect action are actions that are not directly associated with the transgression or even with the victim, but are still a direct result of the guilt experienced from the transgression (Allard and White 2013). Estrada-Hollenbeck and

Heatherton (1998) mentioned behaviours like making a confession, comforting others, good conduct, contributing to charity or volunteering, being reliable and honest in day-to-day life, and in general being more polite, kind, considerate, thoughtful, encouraging, caring, benevolent, and encouraging of a common spirit.

There are multiple lines of reasoning to explain why guilt leads to pro-social behaviour. Some propose that there is an underlying emotional and/or arousal-based mechanism at play. This *Negative State Relief Theory* suggests that guilt is a negative emotional state that people seek to reduce. As pro-social actions make people feel good in general, they use them when the opportunity arises to repair their emotional state.

Others have argued that guilt has an inherent and/or learned association with other-orientedness, which invokes empathy. The *Empathy Theory* states that people learn throughout their lives that one should feel guilt and empathy when one commits a transgression. As such, guilt and empathy occur so frequently that they become associated in memory and when one is activated, the other is activated automatically.

Lastly, it has been proposed that the missing link is the role of morality. The logic of the *Morality Theory* is that people have a perception of themselves as a moral person, and guilt threatens this perception. As a result, people attempt to restore their image as a moral person by becoming more pro-social – the ultimate 'moral' act. The morality hypothesis, which is the theoretical perspective adopted for this thesis, will be further delineated in three types: distributive justice, impression management, and the moral self.

The *negative state relief hypothesis* was proposed by Cialdini, Darby, and Vincent (1973) and simply states that adults are more likely to help others when they feel bad, because helping others reduces negative arousal. The research was an extension from the finding that those in good moods tend to be more helpful, which has often been explained from a mood-maintenance perspective (Wegener and Petty 1994) or as creating a bias towards positive effects from behaviours (Isen, Shalker, Clark, and Karp 1978).

As helping creates a positive affective reaction, it can be used in cases of negative moods, which is the negative state relief hypothesis. The idea in the context of helping is that when people are faced with suffering others, they can experience vicarious distress which produces anxiety (Batson and Powell 2003). One solution is to take away the cause of the distress by running away from the victim, which occurs most clearly in the case of bystanders that do not feel enough responsibility and choose to ignore the situation. However, this is not always

possible nor does it always take away the negative state. Thus, other means of emotion management strategies can be required. One such strategy, pro-social behaviour, would be not only effective but also relatively salient when facing a victim in distress.

Reykowski (1982) approached the theory from a dissonance perspective, which states that people feel uncomfortable when there is a discrepancy between the real and ideal state. Whenever someone observes a distressed victim, they observe a discrepancy between what they perceive as real (distress) and ideal (no distress). The resulting discomfort and anxiety motivates them to help the person in need or otherwise undo the transgression they observed. The just-world hypothesis (Lerner 1980) similarly suggests that when one sees someone suffering unjustly, they feel their just-world belief is violated and feel uneasy as a result.

An underlying assumption of the Negative State Relief Theory is that there is a learned association between guilt, pro-social behaviour, and positive feelings (Batson and Powell 2003). After all, if one does not belief that helping others makes them feel good, they would not use that strategy to relief guilt. A study that supports the idea of a learned association is Yi and Baumgartner (2011), who showed that guilt associated with compulsive buying led to greater use of problem-focused copings strategies (e.g. planning to reduce impulsive buying), rather than avoidance strategies (e.g. blaming others). The study also found that avoidance strategies were associated with lower financial health and more depressive symptoms within their participants. In other words, people seek out problem-focused or proactive methods like helping when dealing with feelings of guilt, rather than passive and avoidant methods such as ignoring the problem.

A second study that provides evidence for this assumption is Eisenberg, McCreath, and Ahn (1988), who looked at facial expressions of preschoolers and later pro-social actions. Specifically, the authors observed sad/concerned and anxious facial expressions and gestures and correlated them with later spontaneous and requested pro-social behaviour. The findings indicated that sad or concerned reactions were positively associated with spontaneous sharing, and that kids with expressed anxiety when facing distress were more likely to request assistance. This paper concluded that there is a connection between sadness, anxiety, and helpfulness, and that this is observed in children as young as preschoolers.

However, this learned association appears to have its limits. Cryder, Springer, and Morewedge (2012) showed that guilt made participants share more resources with others, but they only did so when these others were direct victims of the participant and when the victim could observe the gesture. The authors concluded that rather than eliciting broad reparative

behaviours for negative state relief or improving self-perception, guilt led to strategic reparative behaviour intended to repair specific transgressions.

The *Empathy Theory* does provide an explanation for this effect. Small and Simonson (2007) showed that empathy is stronger when seeing a friend – or someone who suffers from something a friend also suffers from – in trouble than for a stranger. Empathy has been identified as a main motivational factor that drives pro-social behaviour (Penner et al 2005; Batson et al. 1981). For example, Davis and colleagues (1999) found that there is an association between dispositional empathy and increased voluntary work.

Basil, Ridgway, and Basil (2008) showed that empathy and self-efficacy generated guilt and reduced maladaptive responses, which in turn increased donation intention. Moreover, it has been consistently demonstrated that empathic responsiveness, other-orientedness, and similar constructs are strongly correlated with guilt, guilt-proneness, and shame-free guilt proneness, particularly in the work of Tangney and associates who focus on distinguishing guilt and shame (e.g. Tangney 1992, Tangney 1996). They also find that guilt is negatively correlated with anger, which is a component of anti-social behaviour (Tangney 1991). Other-oriented empathy is similar to the construct of empathic response coined by Batson (Batson et al. 1981), which generally is described as leading to warm and caring pro-social behaviour.

The Empathy Theory suggests that guilt and empathy are very similar in terms of cognitive processing and therefore strongly correlated (Niedenthal, Tangney, and Gavanski 1994). One example of this is that empathic individuals have a larger capacity to notice when they have caused harm and thus are more likely to feel guilt (Lamm, Batson, and Decety 2007). What underlies this example is the premise that guilt- and empathy-proneness are determined by the ability to make a distinction between the self and others (Niedenthal, Tangney, and Gavanski 1994). The perspective-taking component of empathy requires individuals to make a distinction between the self and other while experiencing empathic arousal. Similarly, guilt requires and individual to be able to distinguish between behaviours by others and by those of the self, while still observing a relationship between the two.

There are several studies that have exposed some limitations of the Empathy Theory. For example, if guilt and empathy are correlated because of a complex cognitive function like distinguishing between the self and others, children should not be able to perform this function as their brains are not fully developed. However, Eisenberg, McCreath and Ahn (1988) showed that very young children already become more pro-social as a reaction to sadness and anxiety, as discussed previously.

Genevsky, Vastfjall, Slovic, and Knutson (2013) found that empathy (positive arousal) and guilt (negative arousal) are not necessarily elicited together automatically. Their neuro-imaging study demonstrated that when people are given more information about victims (silhouettes vs. photographs), they experience positive arousal that enhances pro-social behaviour, but not negative arousal. This finding suggests that empathy does not automatically elicit guilt.

A rather different approach to the relationship between guilt and pro-social behaviour was taken by those that proposed the *Morality Theory*. Moral philosophers like Kant have argued that altruistic and collectivistic motivations of pro-social behaviour are limited in their explanatory power (Batson and Powell 2003). Empathy-induced altruism is troublesome because not everyone feels empathy when seeing someone need at all times. Likewise, the group-benefit explanation has its limits because it is limited only to the group, and does not explain help beyond group limits. Instead, it has been suggested that the pro-social motivation stems from the ultimate goal of upholding universal and impartial moral principles.

The concept of morality may seem cognitively complex, but a study by Malti and associates (2009) suggested that children as young as six years old already have developed a relationship between moral motivation, moral reasoning, empathy, and pro-social behaviour. The longitudinal study including over 1200 Swiss children showed that a child's moral motivation (the motivation to uphold moral rules voluntarily) moderated the relationship between sympathy and pro-social behaviour. The moderation was such that the effect of sympathy on pro-social behaviour was stronger for those who have lower moral motivation, which suggests that emotional reactions (sympathy) play a smaller role in causing pro-social behaviour when people have a strong sense of morality. Other studies have demonstrated that children at four years old have the capacity to understand norms of justice and care (Smetana and Killen 2008).

In short, the literature on guilt and pro-social behaviour strongly suggests a positive relationship. When one feels guilty, one tends to become more helpful, because it may lift someone's bad mood, because guilt and empathy may have been elicited by the same stimulus, or because one feels it is the right thing to do. The exact theoretical perspective used for the conceptual framework in this thesis will be described in the next chapter.

2.7 How this thesis fits within the literature

This thesis builds upon the previously discussed literature in various ways. First, while sex in advertising has been studied previously, very few studies have looked at the effects of nudity in particular. One of the ways in which the results in this project differ from the findings in the literature on sex in advertising is the role of gender. Specifically, it is found in this study that the effect of nudity in ads on guilt and pro-social behaviour is independent of viewer gender, whereas findings in previous studies about sex in ads generally differed for men and women. It is important to make distinctions between the different forms of sex in advertising to unveil these differences and better understand these constructs.

The negative emotion guilt has been the subject of many studies and has been linked to sexual content and to pro-social behaviour. This thesis adds to these literature streams in two major ways. First, the model proposed in this work connects nudity in ads, guilt and pro-social behaviour, which has never been done before and shows several novel effects and boundary conditions.

Second, this thesis distinguishes between three different types of guilt. These three types were proposed in a qualitative study by Dahl, Honea and Manchanda (2003) and are further developed theoretically and methodologically within the present work. By demonstrating that there are different types of guilt and these have differential effects, this thesis opens up a discussion within the guilt literature that may help merge the various definitions within this literature and may inspire future research to be more specific about the concept of guilt.

Lastly, by showing that it is guilt for hurting the self – rather than guilt for hurting others or society – that leads to pro-social behaviour, this thesis brings a new dimension to studying the relationship between guilt and pro-social behaviour. Previous literature that looked at guilt did not make a distinction between different types of guilt or even different causes of guilt. This work shows that the type of guilt matters for subsequent pro-social behaviour and that it is the egoistic side, rather than the altruistic side, of guilt that appears to be relevant.

CONCEPTUAL FRAMEWORK

3. Conceptual Framework

This thesis proposes that viewing nudity in advertising is interpreted as a failure of the moral self and standards, which leads to feeling of guilt. In order to repair the moral self and reduce the guilt, people engage in pro-social behaviour. The basic theory is presented in figure 4.

Figure 4: Basic theoretical model

Viewing nudity in advertising	Guilt for hurting self	Pro-social behaviour
•Watching nudity in ads is interpreted as failure to uphold the moral self	•Feeling guilt for failing own standards	•Repairing the damaged moral self by doing something inherently moral
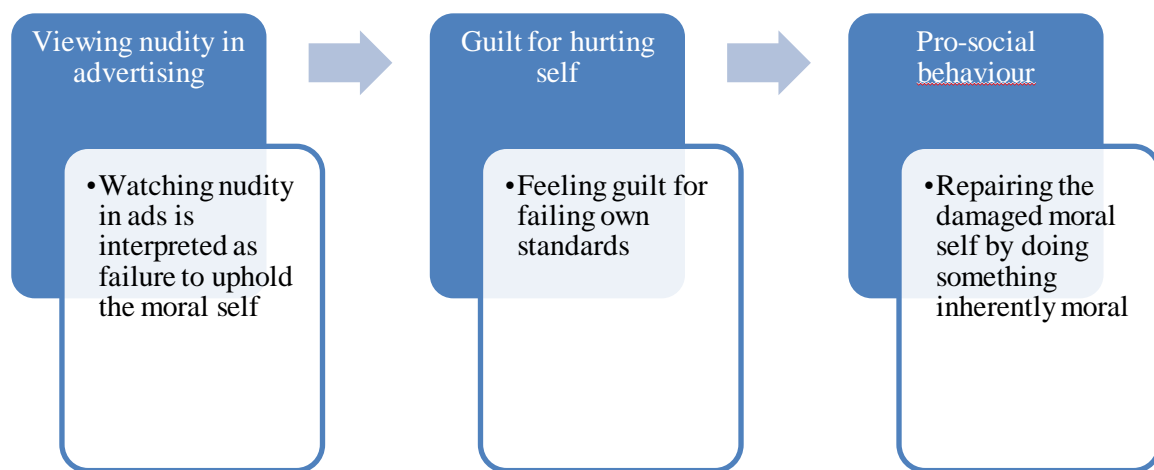
The following sections will present the argument in greater detail. First, it will be discussed how nudity in ads can lead to guilt and the link between guilt and pro-social behaviour will be briefly revisited. The subsequent section addresses the other possible emotional responses to watching nudity in ads. In the final sections, several moderators to the basic theory will be proposed: the appropriateness of nudity in advertising, moral self-affirmation, religiosity, public versus private viewing of ads, and the type of help that one can give.

3.1 How nudity in ads leads to guilt and increased pro-social behaviour

Seeing nudity in advertising can elicit guilt. Using the categorization of emotions as proposed in the appraisal theory – see also the literature review and figure 3 –, we can understand the process through which this happens. Guilt occurs when the stimulus is appetitive, the behaviour is self-caused but has relatively high controllability; but the behaviour itself is interpreted as negative.

Nudity in ads as a stimulus is appetitive. When seeing an advertisement featuring a model, our natural reaction is to look at this model. Eye-tracking studies have shown that people have an automatic reaction when they encounter another person: they look at them. For

example, Birmingham and Kingstone (2009) demonstrated that when participants were not directed to look at anything in particular, they intuitively looked at the people they saw in the stimuli, and in particular their eyes. EyeQuant, a research firm that specializes in eye-tracking, found that in the context of web pages, people seem naturally wired to seek out and look at any available face first (Eyequant 2014). Similarly, when recruiter's eyes were tracked while looking at LinkedIn profiles, it was found that they spend on average 19% of their time looking at the picture (Business Insider 2012). In short, it seems that individuals are hard-wired to look at other people.

There is an implicit societal rule that one should not stare at other people when they are naked in most societies. For example, a quick Google search of the question "why is it inappropriate to look at other people naked" leads to suggested searches such as "is it a sin to look at a woman's body" and "looking vs. lusting", which indicates a religious origin. This rule of looking away from nude others is not only found within Christianity (the word "sin" is used in that context), but also in other religions like Islam ("say to the believing men that they cast down their looks and guard their private parts", Al-Qu'ran, Surah al-Nur, Aya 30-31). As the values of major religions form the basis for the morality of most modern societies, nudity is generally considered as something sinful and to be avoided.

Viewing of nudity in ads, therefore, is inconsistent with moral standards in most societies. This is reflected in reactions to watching nudity. For example, those scoring high on the Mosher Guilt Inventory spent less time viewing pornography (Love, Sloan, and Schmidt 1976). Female undergraduates reported short-term guilt when exposed to erotic material; the effect was stronger for those high in dispositional sex guilt (Mosher and Abramson 1969). Likewise, LaTour and Henthorne (1994) showed that advertisements containing nudity were considered less ethical than their milder counterparts. Moreover, the defensive reaction as described by Brown, Amoroso, and Ware (1976) suggests that viewing and reacting to pornography is something one should inhibit.

When people are taken off guard by nudity – such as in the case of advertising – they automatically look at the nude model. However, their secondary, cognitive and morality-based reaction is to look away from the nude model because they believe it is inappropriate to do so. The viewer consequently feels that they should have inhibited their natural reaction and because they have failed to do so, they feel guilt. In other words, people believe that staring at nudity should be inhibited and a failure to do so – even when they cannot help it – is considered a transgression. In other words, their moral self is compromised by their own action that they believed to be controllable and self-caused.

Peloza, White, and Shang (2013) proposed that people see ethical behaviour as an important internal standard for themselves, and that they have a desire to live up to these internally held standards. They showed that when self-accountability is made salient, people were more likely to choose products with ethical attributes than to choose products promoted with various other self-benefits. Dunning (2007) likewise found that self-worth is in part determined by how moral you perceive yourself to be. Within a consumer context, there is also some evidence that the morality of one's consumption affects self-worth. Mukhopadhyay and Johar (2007) showed that buying a product impulsively leads to happiness combined with guilt and a subsequent preference for happiness appeals over pride appeals. These findings suggest that an immoral consumer action – impulse buying – makes consumers feel less proud of themselves and, by implication, have a lowered self image.

The moral self was the prime focus of a study by Sachdeva, Iliev, and Medin (2009). Participants had their moral identity bolstered or threatened through a writing task and were then asked how much they would donate to a charity in an unrelated task. Those that wrote negatively about their moral self donated significantly more than those who wrote positively, and this was attributed to a change in the self-concept. The authors explained their findings by proposing that those that felt good about their morality felt licensed to act immorally, whereas those who felt bad viewed the donation as an opportunity to restore their moral ledger.

Several other studies have demonstrated similar effects. For example, Zhong and Liljenquist (2006) found that cleaning one's hands after recalling something immoral they had done made them less pro-social than those who did not wash their hands. Likewise, Mukhopadhyay and Johar (2009) showed that restraining the impulse to buy something leads to more indulgence at a subsequent impulse buying opportunity because people want to reward themselves for an earlier restraint (i.e. they feel licensed to indulge). This licensing effect was the focus of Khan and Dhar (2006), whose findings showed that the underlying intent to be virtuous is what makes consumers feel licensed to behave immoral. Connected to this line of work is the finding by Allard and White (2013) that only when moral actions were not available, consumers elected other means of self-enhancement like buying self-improvement products. This study suggests that moral actions take precedent over non-moral but self-beneficial actions when it comes to restoring the moral self.

These studies taken together present a clear explanation and prediction in the context of nudity in advertising. In general, when someone commits a transgression, they will feel guilt if this transgression was a failure of their personal standards that they could have prevented.

If the personal standards were related to the moral self, the individual will feel guilt because they are not upholding their idea of how moral they should be. As a reaction, they will try to repair their moral self. Therefore, people are more likely to opt for pro-social behaviour when their moral self is diminished compared to other forms of self-improvement that enhance mood.

3.2 Guilt for hurting the self as mediator

As was discussed at length in the literature review chapter, guilt generally encourages pro-social behaviour. Using the typology of Dahl and colleagues (2003), it becomes possible to be more specific about the type of guilt that mediates the relationship described above. Guilt for hurting the self occurs when one breaks an internal standard of behaviour, guilt for hurting others occurs when one feels responsible for another's suffering, and guilt for society occurs when there is a transgression against the society for which the individual feels responsible, such as when breaking the law.

The type of guilt that is proposed to mediate the relationship between nudity in ads and pro-social behavior is guilt for hurting the self. In the case of nudity in advertising, the three types of guilt would be experienced in the following ways. People would feel guilt for hurting themselves if they thought that the ad violated some personal standard. Examples of this type of situation would be the value that one should not look at other people when they are undressed because this is rude, a standard of not watching pornography, or believing that they are someone who does not look at this sort of material because they are religious.

People would feel guilt about hurting others if the ad would cause discomfort or other harm to others. Hurting close others could refer to hurting one's spouse by looking at someone other than the spouse, exposing your child to this sort of imagery, or being insensitive towards one's conservative grandfather. Distant others could also be harmed by watching this sort of ads, for instance on trains where other passengers observe you looking at the ad with nudity and cannot move away out of politeness.

Guilt for hurting others seems an unlikely driver for the effect, as Dahl, Honea, and Manchanda (2003) found that guilt for others was associated with avoidance and withdrawal tendencies. This is consistent with the finding that after transgressing against another person, they prefer to stay away from the person they transgressed against if given the option (Estrada-Hollenbeck and Heatherton 1997). An explanation for this effect is that guilt for hurting others is more direct and more public than the other two types of guilt, which may elicit shame alongside guilt. This shame may cancel out any positive effect that guilt may

have on pro-social behaviour. It follows that even if nudity in marketing communications elicits guilt for hurting others, it would still not lead to higher pro-social intentions.

Lastly, it is also possible to feel guilt about hurting society at large. There are certain societal standards that relate to the tolerance of nudity in the public domain, and depending on your location it could be frowned upon or even prohibited. Guilt is felt when you feel bad about breaking this societal standards, even if you personally disagree with them.

Guilt for hurting society can be interpreted as existential guilt identified in the distributive justice explanation (one feels guilt for having things that others do not have). This type of guilt is not expected to be a mediator in this model because it is unlikely that someone would think that viewing nudity – particularly when forced or accidentally like in the context of advertising – makes one responsible for causing imbalance in society.

3.3 Nudity in ads and other emotions

As previous literature has demonstrated, nudity can elicit a variety of emotions in addition to guilt. To study guilt, it is important to distinguish it from other emotions because otherwise it is not possible to make statements specifically about guilt. The most commonly studied effect in nudity research is that of arousal. As a high-arousal emotion (Tangney et al. 1996), guilt should have a distinctive effect in addition to the effect of pure arousal to be of theoretical interest. Guilt also needs to be distinguished from another self-conscious emotion, shame, due to the similarities between the two.

3.3.1 Arousal

Nudity generally increases arousal but only when seeing someone from the opposite sex (Belch et al. 1982, Reichert 2002). Women reported more tension and negative affect when seeing explicit female nudity than men did (LaTour 1990). In a similar study, Simpson, Horton, and Brown (1996) demonstrated that the effect reverses for male nudity: men dislike male nudity and feel less arousal than women. This effect was replicated within a marketing context by Dahl, Sengupta and Vohs (2009). The hypothesis derived from this consistent finding is that arousal should be higher for men than for women when seeing female nudity, but it should be higher for women than for men when seeing male nudity.

Importantly, previous research suggests that guilt experienced from ads with sexual content does not depend on the gender of the viewer. Studying nudity, LaTour and Henthorne (1994) showed that men and women rated the ethicality of sexual marketing appeals equally. If ethicality is a determinant of whether the nudity is seen as a transgression, then guilt

following nudity should not depend on gender. In other words, because men and women judge ethicality similarly, they will experience similar levels of guilt.

It is likely that arousal is elicited when seeing a nude model of the opposite sex. Feeling guilt, however, should not depend on the sex of the model or the viewer, as watching nudity in ads in not related to arousal but rather to morality.

3.3.2 Shame

Shame is an emotion that is generally closely associated with guilt and several studies have attempted to draw key distinctions between the two emotions. Shame occurs with respect to a transgression about the entire self and is experienced as self-loathing, whereas guilt concerns one particular action and is experienced more as self-disappointment (Tangney 1992, Tangney et al. 1996). Guilt and shame both affect self-esteem but in different ways: guilt is about a temporary drop in self-esteem that makes one motivated to restore self-esteem, while shame is a more enduring and debilitating loss of self-esteem that is perceived as revealing deep-seated flaws of the self that are nearly impossible to improve (Baumeister, Stillwell, and Heatherton 1994). In simpler terms, guilt is about a behavioral flaw whereas shame is about a character flaw (Else-Quest et al. 2012).

Yi and Baumgartner (2011) very clearly described the distinct motivations and action tendencies that are associated with guilt and shame. They argued that because guilt is about specific transgressions, much of the reaction to guilt involves undoing or accounting for the transgression, such as confessing, apologizing, or offering compensation for harm done. Shame, as the devaluation of the self, makes people want to hide, escape, or take revenge. People who experience shame act defensively, feel rage, put the blame for the transgression upon others, and even deny involvement with the transgression. Tangney (1991) showed that shame-proneness was negatively correlated with empathic responsiveness, where guilt proneness was positively correlated with empathy. Similarly, Tangney and colleagues (1992) found that dispositional shame was correlated with anger, arousal, suspicion, resentment, and blaming external factors. On the other hand, dispositional "shame-free" guilt was associated with lower blaming, resentment, and general hostility.

One last, related, distinction between guilt and shame is the focus of attention. People who feel ashamed are focused on themselves because shame is experienced as an attack on the self. When guilty, people tend to focus on those they have hurt through feelings of empathy and are trying to undo the damage done (Leary 2007).

In brief, shame is experienced as an attack on the self which makes people focus on themselves, less empathic, defensive and wanting to hide. Guilt is experienced as a temporary flaw of the self that can be resolved by undoing the damage done, which consequently shifts the focus on others and motivates to make amends.

3.4 Moderator: Appropriateness of nudity in advertising

If perceptions of morality drive the effect of nudity in advertising on pro-social behaviour, it is essential to demonstrate that it is the immorality of the nudity in advertising that causes the increased pro-social behaviour.

One way to manipulate ethicality of an advertisement is to change its context so it makes the nudity seem more appropriate. If nudity is seen as appropriate, then it would not be unethical and therefore there is no reason to feel guilt or become more pro-social. The example that was used in this thesis is that of nudity in regular magazines versus magazines about art photography. The exact same photo of a nude female model may be considered highly inappropriate in one context (e.g. on the cover of a lifestyle magazine in a supermarket where children may see it) but appropriate in another (e.g. as the cover of an art photography magazine in an upscale bookstore).

Demonstrating that the main effect disappears when nudity is considered appropriate would provide strong evidence that it is the morality of the nudity that is driving the effect, and not any other effects that may occur with nudity.

3.5 Moderator: Moral self-affirmation

One simple way of demonstrating that an effect is caused by a dent in the moral identity is to use moral self-affirmation. Sachdeva, Iliev, and Medin (2009) studied whether making people feel more or less moral influenced their pro-social behaviour. The authors found that asking participants to write a story referring to either their positive or negative moral traits affected their moral self-worth. It was demonstrated that affirming a moral identity leads to moral licensing, that is, when people see themselves as moral beings they are more likely to act immoral (i.e. be less pro-social). On the other hand, when participants' moral identity was threatened they participated more in pro-social behaviour in order to restore moral self-worth. The authors called this process 'moral cleansing'.

Lee, Winterich, and Ross (2014) in study 4 tested whether reminding consumers of their moral shortcomings would make them donate more to victims who were perceived as very responsible for their own misfortune. High responsibility of victims generally reduces

donations and other charitable actions to help these victims. The authors used the same task as Sachdeva, Iliev, and Medin (2009) of asking participants to write about a neutral of negative past moral experience. Those that were reminded of their moral failings felt they were immoral and were subsequently more likely to donate to a charity for AIDS victims, even when they thought the victims were responsible for contracting AIDS.

The precedent set by these two studies was adopted in this thesis to assess whether re-affirming the moral identity of our participants would eliminate the effect of nudity on pro-social behaviour. If viewing nudity in advertisements is unethical and people feel guilt, then positively reaffirming their moral identity should restore their moral self-worth and reduce their feeling of guilt. It follows that when people cease to feel guilt, they have no reason to be more pro-social in a later task.

In short, if people engage in moral cleansing after seeing nudity in advertising, they will not become more pro-social.

3.6 Moderator: Level of religiosity

Academic researchers have studied the relationships between religion (Christian-based as most studies have been conducted in Western countries), guilt, and pro-social behaviour. For example, Shariff and Norenzayan (2007) showed that when God concepts were primed people became more pro-social in an anonymous dictator game. Similarly, McKay, Herold, and Whitehouse (2013) showed that Catholic participants were more likely to donate to their church when they were reminded of a past, unatoned sin. A study by Jonas and colleagues (2002) showed that one does not even need to prime religion; the concept of mortality salience (e.g. by standing in front of a funeral home) is enough to make people more pro-social. The authors used Terror Management Theory to explain that protection from death-related fear is given by a cultural worldview with rules, and one's belief that one is adhering to the worldview by living up to the standards set.

Based on these findings, it is proposed that religiosity is positively associated with the moral self, guilt, and pro-social behaviour. In other words, those that are generally more religious are also more likely to be sensitive to threats to their moral identity, more susceptible to feeling guilt, and have a stronger relationship between these two constructs and pro-social behaviour.

In the context of nudity in advertising, it is thus suggested that those who are more religious and view nudity in ads will feel more guilt and will be more pro-social than those who are less or not religious.

3.7 Moderator: Public versus private viewing of ads

Impression management has been proposed as a reason for why transgressions would affect pro-social behaviour. When someone has committed an offense and this has been made public, people may be motivated to repair their public image by showing remorse through pro-social acts.

Previous literature has suggested that guilt is likely elicited when a transgression is committed in private, but that shame is more likely to be elicited when a transgression has been made public (Cohen et al. 2011). Guilt is more associated with violating internal standards (the moral self) whereas shame is more associated with violating public norms. Thus, when advertisements are seen in private, as is the case in most studies reported in this thesis, it is likely that people feel more guilt than shame – although it is likely that people (think they) feel both simultaneously. However, when people see the advertisements featuring nudity in public, they are likely to experience more shame than guilt, as their transgression has been made public.

While guilt tends to increase pro-social behaviour, shame has been theorized to decrease pro-social behaviour. Shame has been associated with avoidance tendencies and aggression (e.g. Tangney 1991), which are anti-social, rather than pro-social, behaviours. Leach and Cidam (2015) conducted a meta-analysis of studies between shame and approach tendencies to identify potential moderators that determine when shame leads to avoidance and when it leads to approaching. The authors found that when shame was seen as reparable it lead to approach tendencies, but when the failure was seen as less reparable it lead to avoidance tendencies. As shame usually relates to the self, and not specific actions, shame-eliciting transgressions are commonly seen as less reparable and lead to avoidance tendencies more than guilt-eliciting transgressions do.

This meta-analysis of shame is consistent with a conceptualization of shame proposed by De Hooge et al. (2011). Shame motivates approach behaviour when people can restore the damaged self in the public opinion, but motivates avoidance behaviour when it is too dangerous to do so. De Hooge and colleagues (2011) also argued that withdrawal due to shame is a signal to the group that the shamed individual is aware of their norm-violating behaviour and that they will conform to standards. Shame therefore can lead to pro-social behaviour, but only if the individual feels it will restore their image in the eyes of those they have transgressed against. Otherwise, shame leads to avoidance tendencies and thus reduced pro-social behaviour.

It follows that when nudity in advertising is seen in private, individuals feel guilt and therefore become more pro-social, which is the main effect of this research. However, when the same ads are seen in public (e.g. with a friend), people feel ashamed because this behaviour has been made public. They would only be more pro-social if their behaviour would be directed towards direct audience that transgressed against – which is not the case in the design of the experiments of this thesis where the pro-social behaviour tasks are unrelated.

It is possible that viewing the ads in public (vs. private) provides a license for the transgression. People may believe that because everyone is doing the same transgression as they are, it is therefore an acceptable action and not a transgression, and thus there is no damage to the moral self.

Based on these two arguments, it is proposed that those that view nude ads in public are less pro-social than those who view the same ads in private.

3.8 Moderator: Type of help

The final moderating variable of this thesis originates from the literature on charitable donations. One major drawback of the literature on helping behaviour is the assumption that all helping has identical antecedents and consequences. This thesis is an example of this assumption, namely that it assumes that all forms of pro-social behaviour are identical in that they are all perceived as moral actions and all can help improve one's moral self-worth. While this is a reasonable assumption when studying underlying psychological effects, it leaves open a vast amount of helping-type-specific effects that could be crucial both theoretically and practically.

One way to classify aid given by charities (and by extension other sources) is by means of urgency: emergency aid which has high urgency and development aid which has low urgency. The difference is best described with the saying: give a man a fish and he will eat for a day (emergency aid); teach a man to fish and he will eat for a lifetime (development aid).

Many studies within the charitable donations literature have demonstrated that donations and pro-social behaviour in general are increased when the persuasive message matches the processing style of the recipient. For example, White, MacDonnell and Dahl (2011) showed that those with a high level of construal were more likely to engage in conservation behaviour if it was focused on gains rather than losses. The reverse held for a low construal level.

Eyal and Liberman (2012) explored the effect of construal level theory on the activation of morality and values. Construal theory (Liberman and Trope 1998) proposes that there are two ways of thinking about an action: a low level which is more concrete and has specific features, and a high level which is more abstract and thus de-contextualized. Eyal and Liberman (2012) proposed that when people adopt a high level of construal they are more concerned with moral principles and values. On the contrary, when they adopt a low level construal they often fail to see the relevance of these principles and values to an immediate situation, because these immediate situations often invoke thoughts about constraints and self-interest. The authors therefore suggested that moral principles and values have a larger influence in situations that are more psychologically distant and call for a higher level of construal.

The idea that one thinks more about morality when one has a higher construal should also hold in the reverse situation. When people are concerned with their moral self – such as is the case when they have seen nudity in advertising – they adopt a higher level of construal. Following the theory that messages that are similarly framed are more effective, it becomes possible to make a prediction about the intention to donate to charities that are long-term or short-term focused.

Specifically, it is proposed that when one's moral self is tarnished by viewing nudity in advertising, people adopt a higher level of construal. Due to this higher level of construal, they would be more inclined to donate to and become active for a charity that is focused on long-term solutions. However, when the moral self is tarnished but the charity focuses on emergency aid, there is a mismatch between the adopted construal level and the charity focus. In such a situation, it would be expected that the message would not be effective and therefore we should not observe an increase in helping intention.

3.9 Overview of hypotheses

Based on the previous argument, the following hypotheses were developed.

- *Hypothesis 1: The use of explicit nudity in advertisements (vs. regular ads) leads to feelings of guilt.*
- *Hypothesis 2: There is no difference in levels of nudity-elicited guilt for men and women, unlike for arousal.*

- *Hypothesis 3: There is a positive relationship between nudity in advertising and pro-social behaviour.*

- *Hypothesis 4: Guilt for hurting the self mediates the relationship between nudity in advertisements and pro-social, whereas guilt for hurting others and guilt for hurting society does not.*

- *Hypothesis 5: Nudity appropriateness moderates the main effect such that nudity in ads only increases pro-social behaviour when the nudity is considered inappropriate.*

- *Hypothesis 6: The effect of nudity in advertisements on pro-social behaviour is moderated by moral self-affirmation, such that when people re-affirm their moral identity positively there is no longer a main effect.*

- *Hypothesis 7: The effect of nudity in advertisements on pro-social behaviour is moderated by religiosity, such that when people are more religious, there is a stronger main effect.*

- *Hypothesis 8: The effect of nudity in advertisements on pro-social behaviour is moderated by viewing mode, such that there only is a main effect when seeing the advertisement in private (vs. public).*

- *Hypothesis 9: The effect of nudity in advertisements on pro-social behaviour is moderated by charity type, such that there more increased helping for a charity that is long-term-oriented, than for one that is short-term-oriented.*

METHODOLOGY AND RESULTS

4. Stimuli development

Three sets of stimuli were created for this thesis. The creation process used in this study follows the design of LaTour (1990), who created four conditions: the product only, the product with a fully dressed model, a partially dressed model, or a fully nude model. The "partially dressed" condition is irrelevant in this study because we are only interested in low and high degrees of sexual content, not a medium level.

4.1 Choice of models

The ads used as stimuli were created for this thesis by using models who worked both in the adult entertainment and the modelling industries. As the models looked very similar in both ads (i.e. same hair colour; same face; same body) and assumed a similar pose, it was possible to create a reasonable degree of control of the content of the ads.

The first set of stimuli (diet pill ads) consisted of 6 ads in total, of which three featured nude models and three featured the same models but dressed. In the study, participants would be asked to rate either the set of three ads with nude models or the set of three ads with fully dressed models.

The second set of stimuli (body lotion) had four conditions, including a female dressed and a female nude model. A male nude condition was included to investigate whether any effects on guilt are specific to female nudity, or whether it can be generalized to general nudity. A nonhuman control condition (used by e.g. LaTour 1990) was included for two reasons. First, as the two treatment conditions differed in terms of gender, it would be inappropriate to have only a female as a control condition. Second, it was to be able to show that the effect of nudity in advertising also occurs when compared to an ad that does not feature a model.

The third set of stimuli (magazines) was developed for a specific study. There were four different versions. Half of the magazines were for "Lifestyle" magazine (a generic health and lifestyle women's magazine) and the other half were for "Artwick" (a photography magazine). Within each type of magazine there were 12 covers of magazines: 6 covers featuring nude models and 6 covers featuring those same models but dressed.

4.2 Choice of context

Using nudity in an ad may not be realistic for all products as it may regulated (e.g. not allowed on cable television before 11 pm) or is something that would never happen (e.g. in an

ad for a lawyer's services). It was therefore important to choose a context in which it was possible that nudity could be used as a sales technique. The context selected for this ad was a diet pill, where presumably the nude/dressed model demonstrated the effect of using the pill. Comments from the study indicated that although participants generally "did not believe that she got that skinny by using that pill", they did not question the validity of the ad itself. The reasoning behind the choice of body lotion as context for the second set of stimuli was that it would not be inconceivable to see nudity in a body lotion ad, although it would generally be considered inappropriate. Beside the background picture featuring the model, the information provided was identical across conditions.

The choice for the context of the magazine was theoretical: nude photography is more appropriate in a magazine about photography than it is in a generic lifestyle magazine. This will be further elaborated on in the relevant study.

All stimuli used in this thesis are included in appendix C.

4.3 Potential limitations of these stimuli

It could be argued that these stimuli are relatively far removed from the real world, as one rarely sees full frontal nudity in real ads and nudity in real-life ads is generally focused on enhancement rather than mere display. As a result, participants in this study may find the stimuli unrealistic or even in bad taste.

The stimuli used in this thesis were indeed more revealing than what is usually seen in ads. This, however, is not problematic for two reasons. First, there are examples of full frontal nudity in advertisements, as was discussed in the introduction. Second, the effect would be much harder to study if when only looking at suggestive photos, as these photos are more commonplace in marketing than non-suggestive photos. The next step beyond suggestive is nudity, which is what these stimuli were. The advantage of taking this approach is that it allows for more general implications to industry practice.

To ensure that participants would not judge the stimuli as unrealistic or in bad taste, the general reaction to the stimuli was assessed through open comments. None of the participants indicated that they believed the ad to be unrealistic, merely ineffective ("I do not believe she got that body from using that diet pill"). Some participants did indicate a level of disgust and that they felt the ad was inappropriate and made them feel uncomfortable.

5. The Guilt from Nudity in Advertising (GNA) Scale

5.1 Introduction

In spite of the central role that guilt plays in the consumption process, there have been roadblocks in the study of guilt as a unique emotional state in academic research. In a review of the measurement of dimensional and discrete emotions in psychology, Mauss and Robinson (2009) characterized self-report measures of emotions as 'all-or-nothing' measures because participants have difficulty identifying different levels of emotions as they experience them. They also noted that participants' self-reported emotions appeared to be more accurate when asked for immediate emotional experiences rather than delayed or memorized ones, suggesting that measures are influenced strongly by context and the wording of scale items. Lastly, Mauss and Robinson (2009) raised the issue of social desirability that biases results, particularly for negative emotions.

The concerns about self-reported measures of emotions may have been a reason why many of the guilt studies in consumer behaviour have manipulated rather than measured guilt. Duhachek, Han, and Agrawal (2012) for instance manipulated guilt by asking participants to recall a past experience of guilt (vs. shame). While manipulation is a valid experimental approach to study consumer emotions, not measuring guilt limits the types of effects that can be studied (e.g. mediation), and it makes it harder to assess whether guilt was truly elicited by the manipulation.

Another issue with the study of guilt in a consumption context was identified by Richins (1997), who argued that the main problem in consumer behaviour is the assumption that consumer guilt is identical to guilt in non-consumer situations. As a result of this assumption, the measures and approaches to studying guilt have been copied directly from other literatures (e.g. psychiatry) on guilt without consideration of the context. However, the author noted that emotions are not always the same within a consumer context, and some emotions may not be experienced at all. Likewise, the review by Mauss and Robinson (2009) suggested that self-report measures are sensitive to contextual factors.

In other words, it is possible that the effects of guilt are different in a consumer context and it is therefore imperative to develop measures that are specific to this context to ensure that guilt is properly studied. A good example of the importance of proper measurement of guilt was mentioned in an article by Eisenberg (2000), who found that effects of guilt on children's development of morality differed depending on whether the measure of guilt focused on

specific behaviours or on more global, chronic, and unresolved guilt. The author speculated that these differences were caused by context specificity (e.g. the elicitation of the guilt-related construct empathy is more likely in more specific contexts) or perhaps by personality differences in attribution of or coping strategies for guilt.

A similar issue can be identified within the consumer literature. Han, Duhachek, and Agrawal (2012) included an unreferenced three-item scale of guilt as a manipulation check in their studies that contained the items 'guilt-ridden', 'culpable', and 'remorseful'. Basil, Ridgway, and Basil (2008) used a different but again unreferenced scale to measure guilt using the words 'guilty about not donating', 'sorry about not donating', and 'regretful about not donating' (p. 23). While both scales were reported to have been reliable, they differ substantially in terms of content (different wording; including context in scale item) and measurement (full sentence vs. adjective; bipolar vs. Likert-type agreement scale). Because of these differences, it is not clear whether the two studies can be compared in terms of the reported effects of guilt, and whether they even measure the same type of guilt.

Without valid and reliable measures, it is hard to explore and understand the effects of guilt on the consumption process. Currently, there are few measures of guilt developed specifically for consumer studies. In order to address this concern, a new measure of guilt in the advertising context was developed. Specifically, the Guilt from Nudity in Advertising (GNA) scale measures the level of guilt after viewing advertisements which may contain nudity or other types of offensive material. The measure distinguishes between three different types of guilt, and mediated the relationship between viewing ads with nudity and pro-social behaviour in main theoretical model.

5.2 Three types of guilt

The distinction proposed by Dahl, Manchanda and Honea (2003) between guilt for hurting the self, others, and society is a good base for the scale development for several reasons. First, the typology was developed within a consumer context. This makes it unlikely that sources of guilt experienced outside of this context (i.e. irrelevant types of guilt) are included in the typology.

Second, the types of guilt intuitively seem to apply to the context of nudity in advertising. When someone is watching an advertisement, three main reactions would be about how this advertisement applies to them (e.g. 'am I convinced by this ad'), how it applies to those around them (e.g. 'would my child have need for this product'), and how it fits within the context of society at large (e.g. 'I wonder what other people think about this ad'). It follows

that if the advertisement is causing hurt in any of these three dimensions, then the guilt would follow from thinking about these three general sources.

5.3 Overview

Previous measures of guilt generally capture trait guilt and due to their formatting cannot be converted readily into state guilt measures. Moreover, the state guilt measures that currently exist were not only developed outside of a consumer context but also do not refer to specific actions that would give rise to guilt. Therefore, there is a need to develop scales that measures state guilt within a consumer context – in this particular case guilt from watching nudity in advertisements. The typology deemed most suitable as theoretical base for this scale identifies three types of guilt: guilt for hurting the self, guilt for hurting close and distant others, and guilt for hurting society in general. This typology appears to cover the vast majority of possible reactions to watching advertisements that contain nudity, without including types of guilt that are irrelevant within a consumer context.

The GNA scale will be developed through a series of four studies that are described in the following sections. The procedure for scale development followed existing procedures in the literature on consumer behaviour (e.g. consumer need for uniqueness, Tian, Bearden, and Hunter 2001). The process for scale development followed in this thesis is described in Hinkin (1998).

First, a large pool of items was generated from an open-ended survey in which participants were asked to describe their thoughts and feelings regarding an advertisement featuring a nude female model. In two follow-up studies, the items were assessed in terms of how well they reflect each underlying dimension. Items that did not meet the cut-off criteria were removed. Second, a principal components analysis was performed to remove the final items that did not load appropriately on the three theorized dimensions. An exploratory factor analysis was performed with the remaining 23 items to explore the factor structure, which suggested the existence of three interdependent dimensions. These analyses were followed by a confirmatory factor analysis with an independent sample to confirm the three-factor structure of the scale. The final step was a correlation-based study that confirmed that the scale is associated with existing relevant constructs in the literature, giving more evidence for the validity of the scale.

The discussion for all studies is combined in one major discussion following the four studies.

6. Study 1

Study 1 consists of three separate studies that were conducted to generate items that were representative of the three theorized types of guilt. In study 1A, participants were shown an advertisement featuring nudity and asked for their thoughts that were used as the basis for generating scale items. In studies 1B and 1C two different methods of item reduction were used to prepare the scale for factor analysis.

6.1 Study 1A

6.1.1 Method

The purpose of study 1A was to gauge people's general feelings and feelings of guilt specifically when watching ads with nudity. From their responses, an initial pool of items was generated.

A total of 209 participants were asked about an advertisement containing nudity as part of a larger study run on MTurk. All participants saw the same stimulus, which was an advertisement for a diet pill featuring a fully nude female model.

After responding to the main study, participants were asked in open-ended format about their reactions to the advertisement. 101 participants were included in condition 1, which asked for a description of their feelings in general, and 108 participants were included in condition 2, in which they were prompted to specifically report on any feelings of guilt. The exact questions asked in each condition can be found in table 1.

Table 1: Questions per condition (study 1A)

Condition	Exact question asked
Condition 1	Describe your feelings when watching this ad. Feelings are the emotions you experience and immediate thoughts that come to mind. Note: we are not interested in any in-depth analysis, we just want to know your spontaneous reaction.
Condition 2	It is common that people experience guilt when watching nudity in ads. Please describe this feeling of guilt along with your thoughts while watching this ad. One question we are particularly interested in is: do you experience guilt for yourself for watching this ad, do you feel 'vicarious guilt' for the model in the ad, a bit of both, or neither?

The items were generated by taking direct quotes from the responses collected. Moreover, a variety of synonyms for the word guilt were retrieved using a thesaurus. The synonyms were

used in a variety of combinations with the quotes from the participants to create items in the form of statements that one can agree or disagree with.

6.1.2 Results

The cleaning of the data for this study, and all subsequent studies, is included in appendix A and will not be discussed in the main text. Likewise, the demographic characteristics for all samples used in this thesis can be found in appendix B and will also not be discussed in detail unless relevant.

In total, 86 items were generated – 31 items in the 'guilt for hurting others' category, 29 items in the 'guilt for hurting society' category, and 26 items in the 'guilt for hurting self' category.

6.2 Study 1B
6.2.1 Method

The purpose of study 1B was to reduce the initial pool of items by asking participants to categorize each statement into one of the three types of guilt, or none of these categories. 13 judges recruited via MTurk were asked to categorize each of the 86 items generated in study 1A in one of the three categories of guilt. All participants were informed about the true purpose of the study in advance, were given the definition of each of the dimensions, and tested briefly to ensure they understood the task. The participants were then shown each item one by one and asked to choose the category they believe the item belonged to. Each item was placed by the judges into one category or none of the three using the format of a multiple choice question with a forced single answer.

6.2.2 Results

The criterion for item retention in this study was previously used for the Consumer Need for Uniqueness scale by Tian, Bearden, and Hunter (2001). Four out of five judges must be in agreement on the category to which the statement belongs, which translates into an 80% inter-judge agreement. For the current study this meant that at least 11 of the 13 judges must agree on the category for the item to be accepted. Using this criterion, 29 items were retained from the original 86.

6.3 Study 1C

6.3.1 Method

The purpose of study 1C was to reduce the initial pool of items by asking participants to rate the representativeness of each statement of the focal category.

7 judges recruited via MTurk were asked to rate how well each statement reflects each different category. As in study 1B, participants were briefed on the true nature of the study and explained the three types of guilt. In this study, it was possible to rate the item as representative of multiple categories at the same time, or none at all. The rating took place on a scale from 1 (not representative at all of *category*) to 100 (completely representative of *category*).

6.3.2 Results

The item retention criterion for this study was that an item must be rated an average of 70 points or higher on the target dimension while simultaneously be rated as less than 50% representative of the other categories (Tian, Bearden, and Hunter 2001). This analysis removed only one item in addition to those removed in study 1B.

7. Study 2

In study 2, a principal components analysis was performed to reduce the 28 items generated in study 1 to the final scale. Afterwards, an exploratory factor analysis was used to explore the factor structure of the scale. The analysis for this study follows the protocol proposed by Matsunaga (2011).

7.1 Method

106 participants were recruited via MTurk to take part in this study – three were eventually removed because they failed to provide the correct answer for the attention check, leaving a final sample of 103. Participants were asked to recall an offensive advertisement that they had seen recently and to describe this advertisement. The advertisements described all contained offensive material, and a substantial portion referred to partial or full nudity. After the advertisement, participants were asked to indicate their agreement with the 28 items of the scale on a Likert-type scale ranging from 1 to 7. The items were grouped by factor and each factor was shown on a different page.

7.2 Results

To analyse the data, a principal components analysis and an exploratory factor analysis were performed. A principal components analysis (PCA) was used to remove items that have insufficient loading on the underlying factors based on their variance (Matsunaga 2011). Given that the three factors of this scale represented three types of guilt, it was likely that the factors were correlated. Therefore, the rotation method used for this analysis was the promax rotation, which is an oblique rotation method that assumes that the underlying factors are correlated. The Kappa level selected was 4, which is the default value (Matsunaga 2011). The component correlation matrix generated in the analysis demonstrated that the correlation among the factors was very high (r = .722 and .775), which justified the usage of an oblique rotation method.

After rotation, the item loadings in the pattern matrix were examined for cross-loading or unclear loading. The ideal loading is one where an item clearly represents one factor (loading of minimum 0.5 - 0.6) while having a low factor loading on all other factors (loading no higher than 0.2, Matsunaga 2011). If this first selection criterion is insufficient, then the items can be examined by looking at the difference between the factor loadings: the difference

between the highest and the remaining loadings must be larger than 0.4 (Matsunaga 2011). Cross-loading occurs when an item loads strongly on multiple factors and an unclear loading occurs when an item does not have a large loading on any of the factors.

Based on the previously described criterion for item selection, five items were removed – three items were removed for cross-loading and two were removed for being unclear. The final scale after removal of the items consisted of 23 items, and is included in appendix D. After removing the final items using the PCA, an exploratory factor analysis (EFA) was used to let the data determine the factorial structure of a set of items without an initial theoretical prediction. Even though there was a theoretical base for a three-factor structure, it was chosen to do the EFA to ensure that the data was consistent with the theory and because it was possible that participants were not able to distinguish between different types of guilt. An EFA that establishes the predicted three-factor solution is thus additional evidence for the factorial structure of the scale.

To examine the appropriateness of the sample for factor structure analysis, the KMO and Bartlett's test were conducted (see table 2**Error! Reference source not found.**). The KMO test indicated that the common variance between items was large (Matsunaga 2011). Moreover, the Bartlett's test was significant which suggested that the items had some degree of collinearity, which meant that the dataset was factorable.

Table 2: KMO and Bartlett's test (study 2)

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.933
Bartlett's Test of Sphericity	Approx. Chi-Square	3174.973
	Degree of freedom	253
	Significance	.000

The EFA initially gave a two-factor solution with the self-guilt and society-guilt items loading on the same factor. However, upon further investigation the third factor had an Eigenvalue of .981 (see table 3), which is just below the 1.000 cut-off point. A decision was thus made to fix the number of factors to be extracted to 3. The three factors explained 81% of the variance created by the items.

Table 3: Factor analysis overview (study 2)

Factor	Initial Eigenvalues			Rotation Sums of Squared Loadings
	Total	% of Variance	Cumulative %	Total
1	15.601	67.831	67.831	12.652
2	2.088	9.078	76.909	13.281
3	.981	4.265	81.174	12.746
4	.745	3.239	84.414	
23	.032	.139	100.000	

The EFA factor loadings were examined using the same criteria as used in the PCA. It was found that all items loaded on the correct factor sufficiently. There was one exception which was slightly unclear (item 15, see table 4), but since the difference between factors loadings was larger than .3, this was deemed an acceptable loading.

Table 4: Items and factor loadings (study 2)

	Item	Factor		
		1	2	3
1	I feel intense guilt for watching the ad because it may make those around me feel uncomfortable.	**.894**	-.093	.082
2	I feel at fault for watching this ad because I know it would upset someone dear to me.	**.863**	.140	-.088
3	I feel at fault for watching this ad because I feel it is disrespectful to those close to me.	**.861**	.072	.003
4	I feel at fault for watching this ad because it may make others feel uncomfortable.	**1.021**	-.075	-.024
5	I feel at fault for watching this ad because it may make those around me feel uncomfortable.	**.977**	-.033	-.001
6	I feel mild guilt about watching the ad because I feel it is disrespectful to those close to me.	**.688**	.054	.211
7	I feel mild guilt about watching the ad because I know it would upset someone dear to me.	**.826**	.117	.010
8	I feel regret for not looking away from the ad because I know it would upset someone dear to me.	**.793**	.027	.029
9	I feel a sense of responsibility that these advertisements exist in our society.	.052	-.024	**.504**
10	I feel that I have done something wrong by looking at this ad because it is plain wrong to have this type of ad in our society.	.093	.168	**.678**
11	I feel remorse for watching this ad because it perpetuates the existence of this type of ad in our society.	-.112	.159	**.858**
12	I feel at fault for watching this ad because it is plain wrong to have this type of ad in our society.	-.012	.127	**.813**
13	I feel mild guilt about watching the ad because it is disrespectful towards the society I live in.	.197	.072	**.701**
14	Me viewing this ad is disrespectful towards the society I live in.	.166	.056	**.719**
15	I feel at fault for watching this ad because it is degrading to me and what I believe in.	.233	**.514**	.134
16	I feel like I should be critical of myself for watching the ad.	-.012	**.790**	.079
17	It weighs on my conscience that I have willingly looked at the ad.	.099	**.906**	-.097
18	I feel intense guilt for not looking away from the ad because it violates my personal norms and values.	.107	**.807**	-.001
19	I feel mild guilt about not looking away from the ad because it violates my personal norms and values.	-.032	**.694**	.302
20	I feel mild guilt about watching the ad because it is degrading to me and what I believe in.	.017	**.675**	.268
21	I feel regret for watching the ad because people like me should not be watching such ads.	-.091	**.885**	.029
22	I feel that I have done something wrong by looking at this ad because it violates my personal norms and values.	.042	**.907**	-.031
23	I feel that I have done something wrong by looking at this ad because it is degrading to me and what I believe in.	-.017	**.938**	-.037

7.3 Conclusion

The final scale consisted of 23 items and had three factors. The final number of items, subscale reliability, means and standard deviation for each subscale are reported in table 5. The full scale items are included in appendix D.

Table 5: Overview of factor statistics (study 2)

Factor	Number of items	Reliability	Mean (1-7)	Standard deviation
Guilt for hurting others	8 items	$\alpha = .973$	$M = 3.47$	$SD = 1.70$
Guilt for hurting society	6 items	$\alpha = .934$	$M = 3.47$	$SD = 1.64$
Guilt for hurting the self	9 items	$\alpha = .967$	$M = 3.36$	$SD = 1.64$

This study differs from study 1 in that there were no specific stimuli for participants to rate. Instead, participants were asked to provide their own offensive advertisement. This had two main advantages: the type of offensive ad was not restricted to nudity which generalizes the applicability of this scale, and by asking for an offensive advertisement the ad described by participants was undeniably offensive to them – this is not always the case for nudity in ads specifically.

Dividing the ads into sex-related and sex-unrelated did not yield any significant differences between the groups. However, to ensure that having a variety offensive advertisements – and thus lesser control over the content of the ad – did not affect the scale development, the nude ads developed for this project were used as stimuli in the remainder of the studies.

Study 2 established the final scale through a PCA and explored the factor structure of the items through an EFA. In study 3, a new sample was surveyed to perform a confirmatory factor analysis.

8. Study 3

In the previous study, an EFA was performed to reduce the scale items to create a parsimonious scale. The purpose of study 3 was to perform a confirmatory factor analysis (CFA) to confirm and replicate the factorial structure and to assess goodness-of-fit of the GNA scale using an independent sample (see also Hinkin 1998).

The GNA scale was designed as a reflective measurement model, meaning that it was assumed that the three factors (guilt for self, others, and society) were unobserved (latent) and caused the scores on the items that were measured. Structural equation modelling was used to analyze the data.

8.1 Method

Data were collected from 570 participants on mTurk. The study procedure was very simple. Participants were shown the advertisements for a diet pill featuring a nude model or a dressed female model. By including both the nude and control advertisements, there was a greater level of variance in responses to the guilt scale. After evaluating the ads, participants were asked to complete the guilt scale in its final form. Afterwards, they provided demographic information and were dismissed.

8.2 Results

The analysis of the data consisted of several steps. First, the scale items were examined through their correlations. A CFA analysis was then conducted to assess goodness-of-fit by comparing the null model, one-factor, two-factor, and hypothesized three-factor models to determine the most appropriate factorial structure for the scale. Finally, the factor loadings, a modified model, and the reliability of the final scale were obtained. Correlations and scale reliability were examined using SPSS; the structural equation modelling was done with Amos.

In order to perform a CFA, it is important to first establish that there is sufficient correlation between the individual items and a composite of the latent factor (Hinkin, Tracey, and Enz 1997). A composite score for each subscale was created by averaging the 6 (guilt for society), 8 (guilt for others) and 9 items (guilt for self). Then, the correlation of each item with that composite score was assessed. Results (table 6) indicated that all items were highly correlated with the composite factors. One exception was the first item of guilt for society which was

correlated at .51, which was still much higher than the cut-off value of r = .40 (Kim and Mueller 1978). Therefore, it was concluded that the items correlated sufficiently with the composite scores of their respective factor and the data were therefore factorable.

Table 6: Correlations CFA items with factors (study 3)

		1	2	3	4	5	6	7	8	9
Guilt for self	r	.861	.866	.880	.862	.884	.876	.887	.904	.916
	p	.000	.000	.000	.000	.000	.000	.000	.000	.000
Guilt for other	r	.871	.909	.924	.919	.920	.918	.916	.903	
	p	.000	.000	.000	.000	.000	.000	.000	.000	
Guilt for society	r	.508	.863	.879	.878	.890	.857			
	p	.000	.000	.000	.000	.000	.000			

To assess goodness-of-fit several measurement models were tested. The null model ("independence model" in Amos) is a model that assumes no correlations between any of the items. The null model was compared with structural models with all possible combinations of latent factors. The combinations included a single-factor model in which all items loaded on a single latent factor, three two-factor models in which two of the three factors were combined (e.g. items for guilt for self and others load on one factor and guilt for society on a second), and the theorized three-factor model.

Goodness-of-fit was examined using several fit statistics. The chi-square statistic is used as a standalone indication of fit as well as a way to compare between the models. The smaller the value of the chi-square, the better fit of the model is. Ideally, the chi-square statistic should be insignificant, but this is often impossible with large samples (400+) because the statistic is sensitive to sample size; a significant chi-square value is acceptable if the other fit indices are adequate (Kenny, Kaniskan, and McCoach 2015). Hinkin, Tracey, and Enz (1997) recommended that a chi-square value should be no larger than three times the degrees of freedom, and that the statistic should be as close to the degrees of freedom as possible.

The fit indices that were used to assess were the Comparative Fit Index (CFI), the Tucker-Lewis Index (TLI) and the Root Mean Square Error of Approximation (RMSEA). The CFI and TLI are comparative fit indices that compare the proposed model to the null model and should only be computer if the RMSEA of the null model is larger than .158 (Kenny, Kaniskan, and McCoach 2015). The closer the CFI and TLI approach 1, the better the

comparative fit. The heuristic for these statistics is that the value should be larger than .90 for a well-fitting model.

The RMSEA is an absolute fit measure that is appropriate for models with large degrees of freedom. MacCallum, Browne, and Sugawara (1996) suggested that as a rule of thumb, the RMSEA values of .01, .05, and .08 indicate excellent, good, and mediocre fit, respectively. An RMSEA above .10 indicates poor fit.

Each model that was examined in this analysis was compared to the null model through comparative fit indices as well as to each other to see incremental fit. The results are presented in table 7. The RMSEA of the null model was larger than .158 (.328 to be precise), so inclusion of the CFI and TLI for the other models was appropriate.

As can be seen from the table, the null model, the one-factor model, and the two-factor models have poorer fit than the three-factor model. The chi-square statistic is significant for all models, but is significantly reduced for the three-factor model, although still larger than the recommended three times larger than the degrees of freedom. The CFI and the TLI are closest to the value of 1 for the three-factor model, and only meet the cut-off value for this and the two-factor model including self and society for guilt as a combined factor. Lastly, the RMSEA only reaches acceptable fit for the three-factor model. All statistics are reported without any modifications to improve model fit.

Based on the comparison between all possible models, it can be concluded that the theorized three-factor model is the only measurement model that provides adequate fit to the data.

Table 7: Overview of CFA models (study 3)

	χ^2	df	CFI	TLI	RMSEA
Null model	15761.591	253	.000	.000	.328
One-factor model	2925.488	230	.826	.809	.144
Two-factor self + other vs. society	2301.007	229	.866	.852	.126
Two-factor other + society vs. self	2105.525	229	.879	.866	.120
Two-factor self + society vs. other	1527.458	229	.916	.908	.100
Three-factor model	1028.584	227	.948	.942	.079
Ideal model fit	*< 3 * df*		*1.000*	*1.000*	*.000*

To assess whether the model was valid, the factor loadings of all items were tested for significance. Not having significant indicators renders the model useless, even if it has achieved good fit (Hinkin, Tracey, and Enz 1997). An examination of the regression weights

revealed that all items had significant indicators (ps < .001). The details for this analysis are included in appendix E.

In order to improve fit, modifications can be made to a measurement model by correlating the error terms of individual items within the same factor. Correlations between error terms of items within the same factor capture variance that is not explained by the unobserved factor, and if included should improve fit of the main model (Kenny, Kaniskan, and McCoach 2015). Modification indices provide information about unspecified but contributing variance within the model, such as unspecified parameters, cross-loadings or, in this case, common variance between items such as that caused by common-method bias (Hinkin, Tracey, and Enz 1997). The modification index in AMOS was used with a cut-off value of 15 or above for each iteration to inform the modifications made.

The best fit was obtained by creating correlations between several error terms; the exact measurement model in its unmodified and modified form is included in appendix E. The modification of the model improved fit substantially, as can be seen in table 8. The CFI and TLI became larger and the RMSEA was substantially improved, although it did not reach the .05 cut-off value to achieve 'good' fit, remaining at 'mediocre' fit. Lastly, the chi-square became approximately three times the size of the degrees of freedom, which indicates good fit.

Table 8: Overview of models and modification (study 3)

	χ^2	df	CFI	TLI	RMSEA
Three-factor model	1028.584	227	.948	.942	.079
Modified three-factor model	665.629	214	.971	.966	.061
Ideal model fit	*< 3 * df*		*1.000*	*1.000*	*.000*

The final step in the analysis was to assess internal reliability of the scale. The reliability for each subscale was acceptable: Cronbach's alpha for guilt for society was .900, alpha for guilt for self was .967, and the alpha for guilt for hurting others was .970.

9. Study 4

Up to this point, it has been demonstrated that the GNA scale has appropriate content validity (study 1) and internal reliability and construct validity (study 2 and 3). Further evidence of the validity of the scale was obtained in this final study of the scale development by comparing values of the scale to other measures designed to assess similar constructs (convergent validity) or constructs that based on theory should be closely related to guilt (criterion-related validity) (Hinkin, Tracey, and Enz 1997).

The purpose of study 4 was to examine correlations of the scale with scales from the literature that measure similar constructs to establish construct validity. The second purpose of this study was to explore basic personality and demographic variables that the scale correlates with.

9.1 Method

103 participants were asked on Mturk to complete the scales as presented in this study. The analysis of correlation was performed with the finalized scale after the CFA in study 3 was completed.

The variables that were included for the purposes of convergent validity were the Mosher Sex Inventory scale (Mosher 1961), the PANAS negative items subscale (Watson, Clark, and Tellegen 1988), and the guilt inventory scale (Jones, Schratter, and Kugler 2000). The Mosher Sex Inventory scale is often used in the literature to measure the level of sex guilt an individual is feeling, which is a highly relevant variable in the context of this thesis. The PANAS negative items scale includes measure of guilt and shame, and is often used to gauge negative feelings. Lastly, the guilt inventory scale is a trait measure of the level of guilt a person usually experiences, which is likely to be positively correlated with the focal scale if this measures state guilt.

The scales included for exploring criterion-related validity were the need for reparation scale (Caprara et al. 2001) which gauges tendencies for reparation, the pro-social intention scale (Cavanaugh, Bettman, and Luce 2015) that captures one's intent to be more pro-social in the future, the Rosenberg self-esteem scale (Rosenberg 1965), and the Schwartz Values Scale (Schwartz 2012). Lastly, the demographic variables included were gender, marital status, political orientation, education, income, race, and age.

9.2 Results

The GNA scale correlated significantly and appropriately with similar scales in the literature, as can be seen in **Error! Reference source not found.**10. Specifically, all three subscales correlated positively with the Mosher Sex Inventory and the guilt inventory as expected. The PANAS negative items scale correlated only with guilt for hurting society and guilt for hurting the self.

Table 9: Descriptive statistics for similar scales, first set (study 4)

	Mean	Standard deviation	Scale minimum	Scale maximum
Guilt for hurting others	3.47	1.70	1 *Strongly disagree*	7 *Strongly agree*
Guilt for hurting society	3.47	1.64	1 *Strongly disagree*	7 *Strongly agree*
Guilt for hurting self (me)	3.36	1.64	1 *Strongly disagree*	7 *Strongly agree*
Mosher Sex Guilt	2.41	.69	1 *Strongly disagree*	5 *Strongly agree*
PANAS	1.60	.81	1 *Not at all*	5 *Extremely*
Guilt Inventory	3.01	.69	1 *Strongly disagree*	5 *Strongly agree*

Table 10: Correlations with similar scales, first set (study 4)

		Mosher	PANAS	Guilt inventory
Guilt for hurting others	r	.284	.148	.331
	Sig	*.004*	*.135*	*.001*
Guilt for hurting society	r	.279	.249	.359
	Sig	*.004*	*.011*	*.000*
Guilt for hurting self (me)	r	.352	.273	.380
	Sig	*.000*	*.005*	*.000*

Regarding the personality variables, the scale only significantly correlated with the Schwartz conservation values, which consist of tradition, security, and conformity values (table 12). The correlation was positive, which suggests that people higher in values of tradition,

security, and conformity reported higher levels of guilt. Two correlations were marginally significant. The need for reparation was positively correlated with the 'guilt for hurting others' subscale. The same subscale was negatively correlated with the openness to change values.

Table 11: Descriptive statistics for similar scales, second set (study 4)

	Mean	Standard deviation	Scale minimum	Scale maximum
Need for reparation	2.68	.91	1 *Strongly disagree*	5 *Strongly agree*
Pro-social intention	4.02	1.24	1 *Extremely unlikely*	7 *Extremely likely*
Self-esteem	5.38	1.17	1 *Strongly disagree*	7 *Strongly agree*
SVS: Self-transcendence	4.65	.87	1 *Not like me at all*	6 *Very much like me*
SVS: Self-enhancement	3.38	1.31	1 *Not like me at all*	6 *Very much like me*
SVS: Openness to change	4.20	.86	1 *Not like me at all*	6 *Very much like me*
SVS: Conservation	4.14	1.10	1 *Not like me at all*	6 *Very much like me*

Table 12: Correlations with similar scales, second set (study 4)

		Need for reparation	Pro-social intention	Self-esteem	Self-transcendence	Self-enhancement	Openness to Change	Conservation
Guilt for hurting others	r	.265	.087	.038	.049	.066	-.248	.570
	Sig	*.058*	*.539*	*.792*	*.730*	*.648*	*.079*	*.000*
Guilt for hurting society	r	.048	.068	-.020	.090	-.120	-.215	.543
	Sig	*.733*	*.634*	*.891*	*.530*	*.403*	*.130*	*.000*
Guilt for hurting self	r	.155	.008	-.094	.064	-.076	-.226	.512
	Sig	*.273*	*.956*	*.511*	*.657*	*.594*	*.111*	*.000*

Lastly, the scale correlated with several demographic variables (table 14). The scale was positively correlated with political view, which was coded as a low score being more liberal and a high score being more conservative. The scale was negatively correlated with education, which means that people with higher levels of education felt lower amounts of guilt. The subscale 'guilt for hurting the self' had a marginally significant negative correlation with education, which suggests that participants who are wealthier felt less guilt about hurting themselves than those who are less well off.

Table 13: Descriptive statistics for similar scales, third set (study 4)

Gender	Male	Female			
	54.5%	*45.6%*			

Marital status	Single	In a relationship	Married	Separated/ divorced	
	33%	*15.5%*	*45.6%*	*5.8%*	

Political orientation	Very liberal	Liberal	Moderate	Conservative	Very conservative
	17.5%	*29.1%*	*26.2%*	*19.4%*	*7.8%*

Education	Did not finish high school	High school or some college	College graduate	Postgraduate	
	1%	*35.9%*	*54.5%*	*8.7%*	

Ethnicity	European American	African American	Hispanic/Latino	East Asian	Other
	75.7%	*9.7%*	*5.8%*	*2.9%*	*5.8%*

Income	<$15,000	$15,001-25,000	$25,001-35,000	$35,001-50,000	$50,001-75,000
	13.6%	*7.8%*	*13.6%*	*21.4%*	*22.3%*
	$75,001-100,000	$100,000-150,000	>$150,000		
	10.7%	7.8%	2.9%		

Age	Mean	Standard deviation	Minimum	Maximum	
	37.50	*11.79*	*18*	*66*	

Table 14: Correlations with similar scales, third set (study 4)

		Gender	Marital status	Political view**	Education	Income	Race	Age
Guilt for hurting others	r	-.021	-.056	**.336**	**-.259**	-.009	-.013	-.071
	Sig	.831	.573	**.001**	**.008**	.928	.898	.474
Guilt for hurting society	r	.004	.079	**.329**	**-.367**	-.033	-.043	.014
	Sig	.965	.426	**.001**	**.000**	.743	.667	.887
Guilt for hurting self (me)	r	.012	.093	**.337**	**-.367**	**-.170**	-.133	-.091
	Sig	.908	.349	**.000**	**.000**	**.085**	.180	.359
**Political view low score is liberal, high score is conservative								

9.3 Conclusion

As expected, the scale correlated significantly with relevant subscales, specifically the Mosher Sex Inventory, the PANAS negative items, and the guilt inventory. The scale also correlated with the Schwartz conservation values and political orientation. The correlation with closely related constructs in the literature provides strong evidence that the scale has construct and convergent validity.

A further discussion of the results follows in the next section, in which the discussions for studies 1-4 are combined.

10. Discussion studies 1-4

The first four studies in this project concerned the development of a scale to measure guilt resulting from nudity in advertising. The Guilt from Nudity in Advertising (GNA) scale was based on a conceptualization by Dahl, Honea, and Manchanda (2003) of guilt that identified three types: guilt for hurting the self, guilt for hurting the other, and guilt for hurting society. The conceptualization was selected as the theoretical foundation because it was developed within the literature on consumer behaviour and appeared to have the least redundancy in types of guilt (e.g. survivor guilt in psychiatry is not too relevant to a marketing context). In study 1 of, 23 items were generated as comprising the scale – 8 items for guilt for hurting others, 6 items for hurting society, and 9 items for guilt for hurting the self. Three subsequent studies were conducted to test the factor structure, reliability, and validity of the scale. Study 2 asked participants to recall an offensive advertisement and then to complete the GNA scale. Whereas in study 1 specific stimuli with nudity were used, the recall task in study 2 allowed the scale to have a broader scope by including all types of offensive advertisements. The exploratory factor analysis revealed three factors that corresponded with the theoretical conceptualization. In study 3, a second, independent, sample was used for a confirmatory factor analysis with the nude stimuli used in the first study, which demonstrated that the three-factor structure found in study 2 was the best fitting model to the data. Study 4 investigated convergent and criterion validity of the GNA scale through correlations with theoretically related constructs. The scale correlated positively with guilt scales such as the Mosher Sex Inventory, the PANAS negative items, and the guilt inventory.

In addition to the existence of the three types of guilt, the most important take-away from these studies is that the feelings of guilt were not correlated with gender, race, or age, which suggests that guilt was experienced equally across all categories of these variables. In other words, men and women of all races and ages felt the same level of guilt after watching offensive advertisements. This is consistent with the theoretical difference between guilt and arousal as described in the chapter on the conceptual framework.

There were several unexpected results in the series of studies. Only the subscale for guilt for hurting others was correlated with the need for reparation scale. This is theoretically consistent with the idea that when one hurts another person, one wants to alleviate guilt by a reparative action such as an apology (Baumeister, Stillwell and Heatherton 1994). If someone

would feel they hurt themselves or society, there would be no one to apologize to and thus there would be no higher intention to engage in direct reparative behaviour.

The scale also correlated positively with the Schwartz conservation values and negatively with liberalism. In terms of criterion validity, the subscale guilt for hurting others correlated with the need for reparation scale, but not with the pro-social intention scale. This null-effect for pro-social behaviour could have been caused by several factors, such as the length of the survey and number of scales, the relative distance of any effect of offensive ads on pro-social intention, or potential, undiscovered, moderators.

There was a strong negative correlation between guilt and level of education, which may be caused by a more open-minded view of offensive advertising. Specifically, those with higher levels of education may value offensive ads as a means to start a discussion on a sensitive topic.

The GNA measure adds to the literature comprising measures of guilt that are used in the study of consumer behaviour. It is a state guilt measure, rather than a trait guilt measure like most other measures of guilt. The GNA scale can be used in future research on offensive advertisements to measure or rule out any guilt-reaction. Moreover, it is possible to adapt the scale to measure other emotions, such as shame, envy, or anger, or to use the scale as a basis to develop an entirely new measure of emotional state outside of the context of offensive advertising.

Another use of the GNA scale is to tease out different reactions to feelings of guilt. For example, as shown in subsequent studies, only guilt for hurting the self mediated the relationship between nudity in advertisements and pro-social behaviour, but the other two types of guilt did not. It follows that only those who feel like they have degraded themselves by watching the ads will become more pro-social. It is likely that the three types of guilt have distinct antecedents and consequences, and future research into this area would help extend understanding of guilt as an emotion at a deeper level.

One limitation of this series of studies is that all designed stimuli used featured nudity, rather than other types of offensive material. It is therefore not yet established whether the scale can be used to study advertisements featuring other types of offensiveness, such as the provocative advertisements by United Colors of Benetton, which are designed specifically to engage viewers in discussion about sensitive and often taboo topics like race and sexuality. Although the GNA scale was not tested specifically with these stimuli, it would be interesting to investigate whether guilt reactions differ when the nature of the offensiveness changes. It may be possible that a different intensity of guilt is elicited depending on the type of

offensiveness, or that there is an effect on only one or two types of guilt, but not on the other type(s).

To summarize, the Guilt from Nudity in Advertising (GNA) scale was developed in studies 1-4 to be able to measure and distinguish between three types of guilt that could follow from viewing such ads. The scale is valid and reliable. One of the most important findings is that the scale does not correlate with gender, which is consistent with the theoretical difference between guilt and arousal and hence provides evidence for the notion that guilt is more than mere arousal.

11. Overview of hypotheses

Having developed the GNA scale in studies 1-4, the remainder of the studies will focus on the main effect, mediation effect and moderators as described in the conceptual development. Below are the hypotheses to be tested and the related study.

- *Hypothesis 1: The use of explicit nudity in advertisements (vs, regular ads) leads to feelings of guilt.*
- *Hypothesis 2: There is no difference in levels of nudity-elicited guilt for men and women, unlike for arousal.*
- *Hypothesis 3: There is a positive relationship between nudity in advertising and pro-social behaviour.*
- *Hypothesis 4: Guilt for hurting the self mediates the relationship between nudity in advertisements and pro-social, whereas guilt for hurting others and guilt for hurting society does not.*
- *Hypothesis 5: Nudity appropriateness moderates the main effect such that nudity in ads only increases pro-social behaviour when the nudity is considered inappropriate.*
- *Hypothesis 6: The effect of nudity in advertisements on pro-social behaviour is moderated by moral self-affirmation, such that when people re-affirm their moral identity positively there is no longer a main effect.*
- *Hypothesis 7: The effect of nudity in advertisements on pro-social behaviour is moderated by religiosity, such that when people are more religious, there is a stronger main effect.*
- *Hypothesis 8: The effect of nudity in advertisements on pro-social behaviour is moderated by viewing mode, such that there only is a main effect when seeing the advertisement in private (vs. public).*
- *Hypothesis 9: The effect of nudity in advertisements on pro-social behaviour is moderated by charity type, such that there more increased helping for a charity that is long-term-oriented, than for one that is short-term-oriented.*

12. Study 5

Before investigating the effects of nudity and guilt on pro-social behaviour, it is important to establish that guilt is elicited from watching nudity in advertisements, and that this guilt is different from other emotions. The purpose of study 5 was to demonstrate that nudity elicits guilt, and that guilt is still elicited when controlled for arousal.

12.1 Method

322 participants were recruited via mTurk to participate in an ad evaluation study. The cover story was that this research was about how people evaluate ads. The instructions were kept intentionally vague to avoid participants guessing that we were not interested in their ad evaluation but rather their ratings of their emotions, which was positioned as a secondary task.

Participants were asked to imagine that they were surfing on the internet by themselves while at home – very similar to their assumed situation as an mTurk respondent. The participants then viewed three advertisements for diet pills and were asked to evaluate each ad in terms of how much they liked the design of the ad and the model featured on a Likert-type scale. The three ads used as stimuli are included in appendix C.

After evaluating the ads, participants rated their emotions along a PANAS-type measurement (Watson, Clark, and Tellegen 1988). Participants indicated on a scale from 1 to 9 how strongly they agreed with the statement "Right now, I feel … <emotion>". The nine emotions included were guilt, shame, embarrassment, envy, happiness, anger, arousal, excitement, and agitation. The emotions other than guilt and arousal are treated as filler items in this study.

12.2 Results

The cleaning of the data for this study, and all subsequent studies, is included in appendix A and will not be discussed in the main text. Likewise, the demographic characteristics for all samples used in this thesis can be found in appendix B and will also not be discussed in detail unless relevant.

An analysis of the main effect showed that there is a significant positive main effect of nudity on both guilt and arousal. Moreover, the effects remained significant when controlled for the other emotion. The means, standard deviations, and levels of significance for guilt and arousal are displayed in table 15.

Table 15: General descriptive statistics and main effect (study 5)

Emotion	Nude		N	Dressed		N	Main effect			Main effect (controlled for guilt/arousal)		
	M	*SD*		*M*	*SD*		*F*	*df*	*p*	*F*	*df*	*p*
Guilt	1.93	1.52	147	1.39	1.06	175	13.812	1	.001	9.637	1	.003
Arousal	3.79	2.73		2.75	2.29		13.974	1	.000	9.797	1	.002

The interaction with gender was insignificant for guilt but significant for arousal. Feelings of guilt after viewing nudity were not different for female or male participants. Simple effects showed that only male participants reported higher levels of arousal when faced with a nude female model. Female participants did not report feeling higher levels of arousal when the female model was undressed. Moreover, there was a significant main effect of gender such that men in general felt more aroused than women. The descriptive statistics and significance levels can be found in table 16 through table 19 and are presented graphically in figure 5.

Table 16: Descriptive statistics for guilt (study 5)

Guilt*		Descriptives			Statistics		
		N	*M*	*sd*	*F*	*df*	*p*
Main effect of nudity	Nude	147	**1.93**	1.52	14.925	1	.003
	Dressed	175	**1.39**	1.06			
Main effect of gender	Male	165	**1.63**	1.32	2.472	1	.117
	Female	157	**1.64**	1.31			
Interaction effect		322			1.250	1	.382

*controlled for arousal

Table 17: Statistics for planned simple contrasts guilt (study 5)

Guilt*	Male participants			Female participants					
	M	SD	N	M	SD	N	*F*	*df*	*p*
Nude female ad	**1.87**	1.47	80	**2.07**	1.65	68	3.966	1	.190
Dressed female ad	**1.41**	1.13	86	**1.37**	.99	89	.515	1	.474
F	4.090			9.774					
df	1			1					
p	.045			.010					

*controlled for arousal

Table 18: Descriptive statistics for arousal (study 5)

Arousal*		**Descriptives**			**Statistics**		
		N	*M*	*sd*	*F*	*df*	*p*
Main effect of nudity	Nude	147	**3.79**	2.73	9.580	1	.002
	Dressed	175	**2.74**	2.29			
Main effect of gender	Male	165	**4.25**	2.69	72.658	1	.000
	Female	157	**2.14**	1.87			
Interaction effect					5.216	1	.023

*controlled for guilt

Table 19: Statistics for planned simple contrasts arousal (study 5)

Arousal*	**Male participants**			**Female participants**					
	M	SD	N	M	SD	N	*F*	*df*	*p*
Nude female ad	**5.05**	2.67	78	**2.37**	2.02	69	47.500	1	.000
Dressed female ad	**3.54**	2.51	87	**1.96**	1.74	88	23.643	1	.000
F	12.649			.077					
df	1			1					
p	.000			.781					

*controlled for guilt

Figure 5: Results for guilt and arousal (study 5)
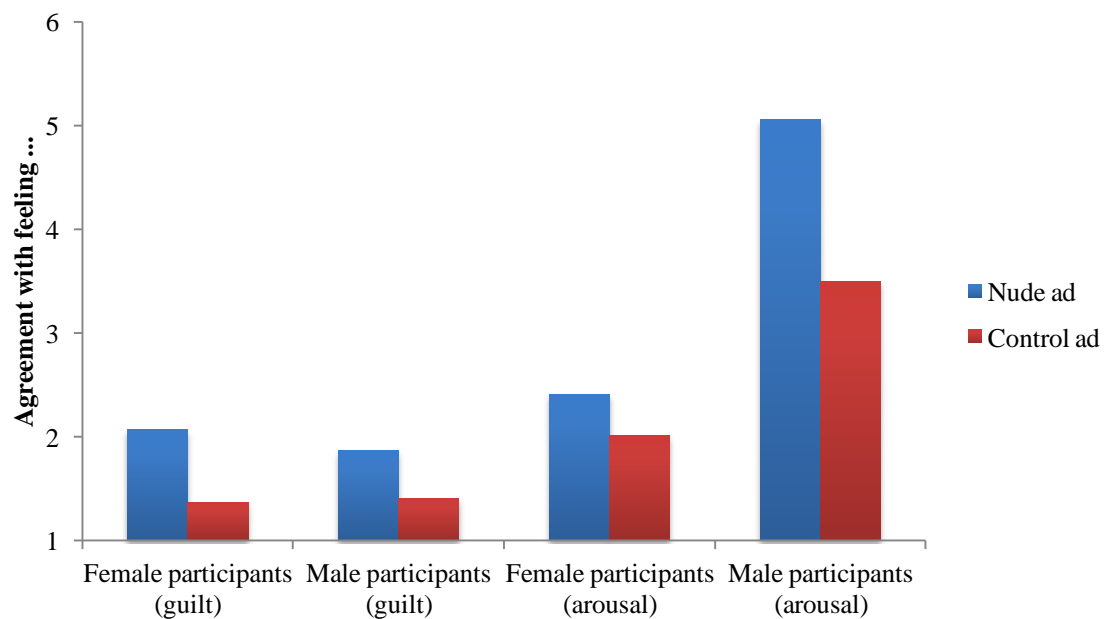
12.3 Discussion

In study 5 it is demonstrated that the effect of watching an ad with female nudity (versus an ad with a dressed female model) leads to higher feelings of guilt and arousal. The difference between the two emotions becomes evident when looking at participant gender. First, men feel more aroused than women, whereas men do not feel more guilt than women. Moreover, the interaction between nudity and the gender of the participant: women do not feel more aroused when watching the nude versus dressed ad, but men do.

In short, study 5 shows that guilt and arousal are two different experiences in the context of nudity in ads. One alternative explanation for the effect of nudity on pro-social behaviour is increased arousal, which can cause a general action tendency. The finding in this study is thus important because it suggests that the effect of nudity in guilt and subsequent pro-social behaviour is not merely driven by increased arousal, so long as this main effect does not depend on participant gender. In other words, if the main effect of nudity on pro-social behaviour does not depend on participant gender, then it cannot be explained by higher arousal. This finding is consistent with previous literature on this topic (Belch et al. 1981, Reichert 2002).

This study only looks at female nudity, but it has been found in the literature that the effect of nudity on arousal reverses for male nudity (i.e. women report higher arousal than men, Simpson, Horton, and Brown 1997). To strengthen the finding that arousal and guilt are distinct constructs, male nudity is a central focus of study 6.

13. Study 6

The purpose of study 6 was to replicate and expand on the findings of study 5 by describing the effect of nudity in advertisements on self-reported ratings of guilt, arousal, shame, and embarrassment. Moreover, the study aimed to demonstrate that watching nudity created distinct patterns for each emotion by examining the interaction of nudity with the gender of the participant.

13.1 Method

A total of 298 participants were invited via mTurk to participate in an ad evaluation study. The process was very similar to that of study 5: participants first viewed and evaluated an ad, and then reported their feelings in that moment immediately afterwards using the same measure used in study 5.

The study had a 2 (participant gender) by 3 (nudity) between-subjects design. The gender of the participant was collected at the end of the study along with other demographic information. There were three nudity conditions: a female nude ad, a male nude ad, and a nonhuman control ad. The set of ads used for this study were the ads for body lotion, as described in the stimuli development chapter and included in appendix C. After evaluating the ads, participants rated their emotions using the same measure as in study 5.

13.2 Results

13.2.1 Guilt

There is a main effect of both nudity and participant gender on guilt. Planned simple contrasts show that people feel more guilt when watching female or male nudity compared to a nonhuman control condition. There is no difference in feelings of guilt for the female or male nudity conditions. Moreover, there is a main effect of nudity such that men feel more guilt than women. The interaction effect is insignificant, meaning that the effect of nudity on feelings of guilt does not depend on participant gender. Gender is thus not included in the planned contrasts. The means, standard deviations, sample size, and significance levels are reported in table 20, table 21 and figure 6.

Table 20: Statistics for main and interaction effect guilt (study 6)

Guilt		Descriptives			Statistics		
		N	*M*	*sd*	*F*	*df*	*p*
Main effect of nudity	Nude female	98	**2.12**	1.80	10.990	2	.000
	Nude male	103	**2.18**	1.90			
	Nonhuman control	97	**1.22**	.68			
Main effect of gender	Male	149	**2.08**	1.76	5.371	1	.021
	Female	149	**1.62**	1.52			
Interaction effect					.357	2	.700

Table 21: Statistics for planned simple contrasts guilt (study 6)

Guilt	*M1*	*M2*	*F*	*df*	*p*
Nude female ad vs nonhuman control	2.12	1.22	19.650	1	.000
Nude male ad vs nonhuman control	2.18	1.22	22.388	1	.000
Nude female vs male female	2.12	2.18	.054	1	.817

Figure 6: Results for guilt (study 6)

13.2.2 Arousal

The results indicated that the pattern for arousal depended on both the gender of the model and the gender of the participant (interaction p = .000). When males viewed nudity, they reported significantly higher levels of arousal when the model is female, but not when the model was male. The reverse effect holds for women, meaning that women reported higher levels of arousal when viewing a nude male model. There was no significant difference in reported arousal for men and women in the control condition. All means, standard deviations, sample size, and significance levels are reported in table 22, table 23 and figure 7.

Table 22: Statistics for main and interaction effect arousal (study 6)

Arousal			Descriptives			Statistics		
		N	*M*	*sd*	*F*	*df*	*p*
Main effect of nudity	Nude female	98	**3.85**	2.79	7.730	2	.001
	Nude male	103	**2.88**	2.38			
	Nonhuman control	97	**2.49**	2.22			
Main effect of gender	Male	149	**3.30**	2.55	2.525	1	.113
	Female	149	**2.85**	2.49			
Interaction effect					14.204	1	.000

Table 23: Statistics for planned simple contrasts arousal (study 6)

Arousal	Male participants			Female participants					
	M	SD	N	M	SD	N	*F*	*df*	*p*
Nude female ad	**4.90**	2.54	51	**2.70**	2.61	47	17.857	1	.000
Nonhuman control	**2.74**	2.18	46	**2.27**	2.24	51	1.062	1	.305
F	20.001			.759					
df	1			1					
p	.000			.386					

Arousal	Male participants			Female participants					
	M	SD	N	M	SD	N	*F*	*df*	*p*
Nude male ad	**2.21**	2.08	52	**3.57**	2.48	51	9.050	1	.003
Nonhuman control	**2.74**	2.18	46	**2.27**	2.25	51	1.062	1	.305
F	1.498			7.617					
df	1			1					
p	.224			.007					

Arousal	Male participants			Female participants					
	M	SD	N	M	SD	N	_F_	_df_	_p_
Nude female ad	**4.90**	2.54	51	**2.70**	2.61	47	17.857	1	.000
Nude male ad	**2.21**	2.08	52	**3.57**	2.48	51	9.050	1	.003
_F_	34.654			2.833					
_df_	1			1					
_p_	.000			.096					

Figure 7: Results for arousal (study 6)

13.2.3 Shame

Like guilt, participants regardless of gender reported significantly higher levels of shame when viewing nudity of either gender. However, unlike guilt, the interaction of gender and nudity for shame was significant (p = .027). Simple contrast showed that the main difference between the two emotions occurred when watching male nudity; men reported significantly higher levels of shame than females did. The means, standard deviations, sample size, and significance are provided in table 24 and table 25. The data are visually presented together with the results for embarrassment in figure 8.
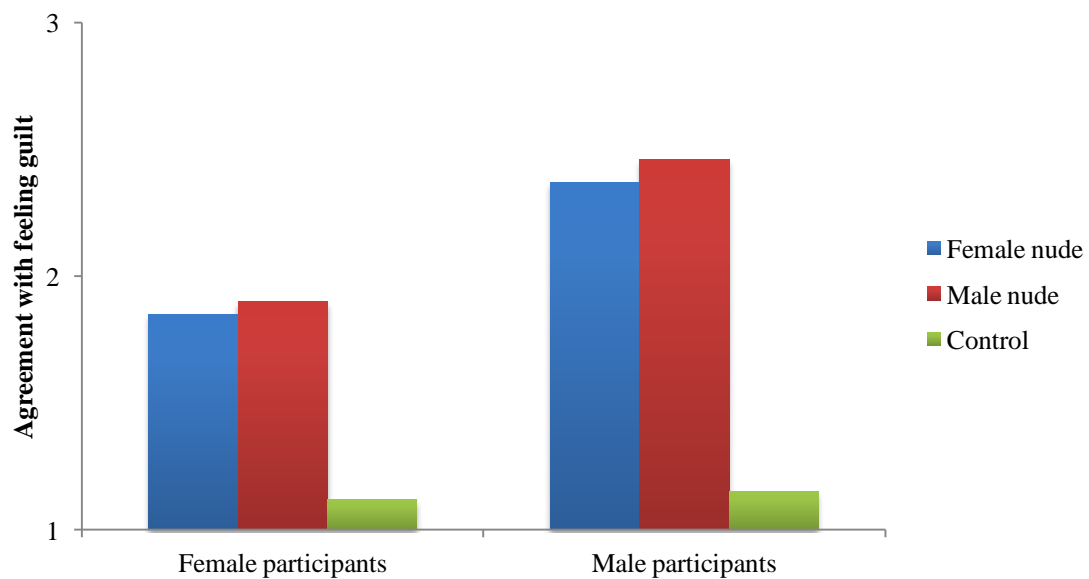
Table 24: Statistics for main and interaction effect shame (study 6)

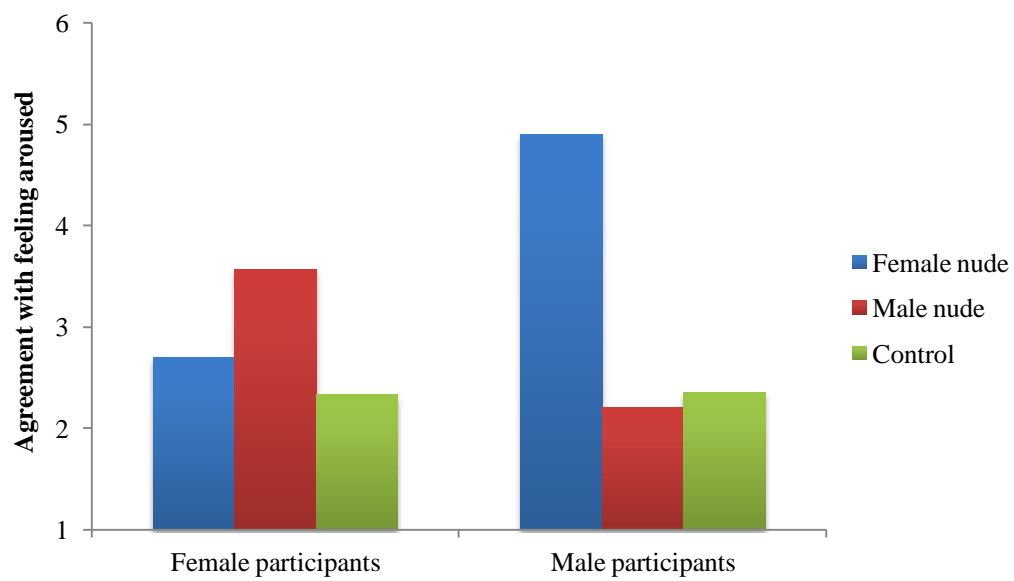| Shame		Descriptives			Statistics		
		N	*M*	*sd*	*F*	*df*	*p*
Main effect of nudity	Nude female	98	**2.09**	1.91	14.346	2	.000
	Nude male	103	**2.52**	2.257			
	Nonhuman control	97	**1.22**	.78			
Main effect of gender	Male	149	**2.30**	2.07	9.852	1	.002
	Female	149	**1.62**	1.53			
Interaction effect					3.655	2	.027

Table 25: Statistics for planned simple contrasts shame (study 6)

Shame	Male participants			Female participants					
	M	SD	N	M	SD	N	*F*	*df*	*p*
Nude female ad	**2.25**	1.91	51	**1.91**	1.90	47	.773	1	.382
Nonhuman control	**1.30**	.98	46	**.14**	.53	51	1.111	1	.295
F	9.128			7.815					
df	1			1					
p	.000			.006					

Shame	Male participants			Female participants					
	M	SD	N	M	SD	N	*F*	*df*	*p*
Nude male ad	**3.21**	2.51	52	**1.82**	1.71	51	10.658	1	.001
Nonhuman control	**1.30**	.98	46	**1.14**	.53	51	1.110	1	.259
F	23.261			7.439					
df	1			1					
p	.000			.008					

Shame	Male participants			Female participants			F	df	p
	M	SD	N	M	SD	N			
Nude female ad	**2.25**	1.97	51	**1.91**	1.90	47	.773	1	.382
Nude male ad	**3.21**	2.51	52	**1.82**	1.71	51	10.658	1	.001
F	4.700			.062					
df	1			1					
p	.033			.804					

Figure 8: Results for shame and embarrassment (study 6)
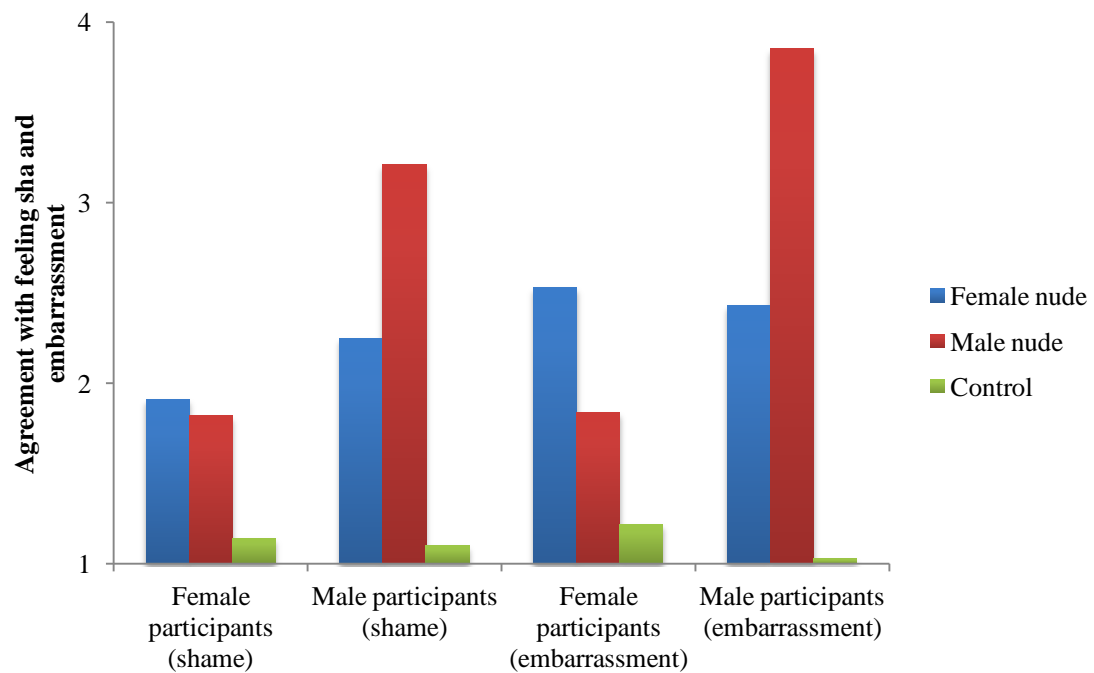
13.2.4 Embarrassment

The pattern for embarrassment was also different from that of guilt, as demonstrated by a significant interaction of nudity and participant gender. Specifically, males reported higher levels of embarrassment when watching male nudity than females, but embarrassment was similar for both genders when watching female nudity. Moreover, males who viewed a nude male were more embarrassed than males who viewed a nude female. The pattern reversed for women such that women were more embarrassed watching the nude female model than when watching the nude male model. The means, standard deviations, sample size, and significance are provided in table 26, table 27 and figure 8.

Table 26: Statistics for main and interaction effect embarrassment (study 6)

Embarrassment		Descriptives			Statistics		
		N	M	sd	F	df	p
Main effect of nudity	Nude female	98	**2.48**	2.10	21.627	2	.000
	Nude male	103	**2.85**	2.42			
	Nonhuman control	97	**1.20**	.88			
Main effect of gender	Male	149	**2.54**	2.25	8.342	1	.004
	Female	149	**1.85**	1.77			
Interaction effect					10.573	2	.000

Table 27: Statistics for planned simple contrasts embarrassment (study 6)

Embarrassment	Male participants			Female participants					
	M	SD	N	M	SD	N	F	df	p
Nude female ad	**2.43**	1.95	51	**2.53**	2.27	47	.055	1	.814
Nonhuman control	**1.17**	.73	46	**1.22**	1.00	51	.053	1	.818
F	16.888			14.109					
df	1			1					
p	.000			.000					

Embarrassment	Male participants			Female participants					
	M	SD	N	M	SD	N	F	df	p
Nude male ad	**3.85**	2.66	52	**1.84**	1.65	51	20.971	1	.000
Nonhuman control	**1.17**	.73	46	**1.22**	1.00	51	.053	1	.818
F	43.418			5.358					
df	1			1					
p	.000			.023					

Embarrassment	Male participants			Female participants			*F*	*df*	*p*
	M	SD	N	M	SD	N			
Nude female ad	**2.43**	1.95	51	**2.53**	2.273	47	.055	1	.814
Nude male ad	**3.85**	2.66	52	**1.84**	1.65	51	20.971	1	.000
F	9.442			2.975					
df	1			1					
p	.003			.088					

13.3 Discussion

Study 6 replicated the effects found in study 5 and investigated arousal, shame, and embarrassment in more detail as these emotions are closely related to guilt. It was found that guilt differed from arousal, shame, and embarrassment in that these emotions were sensitive to the participant gender and model gender. Arousal had the most straightforward pattern in that it was elevated when seeing a nude model of the opposite sex, which is consistent with previous literature on arousal.

Interestingly enough, shame and embarrassment were higher after seeing nudity, but only when this nudity featured a model of the same sex. These emotions are theoretically very close to guilt in terms of them all being self-conscious emotions. However, the fact that there were differences in their patterns suggests that all three are distinct reactions to viewing nudity. This is consistent with previous literature that proposes that the three emotions have their own distinctive appraisal patterns and consequences.

In conclusion, guilt was higher after seeing any type of nudity in an ad and was independent of viewer gender. The differences between the two patterns of guilt and the other emotions strongly suggested that all were elicited from watching nudity, but that guilt did not depend on the gender of the participants. One important prediction from this finding for later studies if that if there is an interaction with gender for any effect, it is unlikely that it is guilt driving that effect, as guilt seems to be independent of gender.

In addition to the reported findings, several important points need to be made. First, many of the effects found were driven by the male nudity condition in that the gender-specific nature of the emotions were only visible when comparing the female nude and the male nude conditions. Previous literature on nudity has largely neglected studying male nudity and therefore may not have captured effects caused by gender differences, both in terms of emotions and affect as well as broader psychological and behavioural reactions to nudity.

Moreover, some research may have incorrectly concluded that the effects of nudity may only apply to men when only studying female nudity in advertising.

Second, the standard deviations of the data are quite interesting in the sense that they are very small for the control conditions, but very high for the nudity conditions. It is possible that the large deviations are caused by wildly varying emotional reactions to guilt. The studies have demonstrated that one important cause for the variation in emotions is gender, but it is very likely that other factors such as age, level of education, political orientation, religiosity, and other personality variables may be responsible as well. Although these moderators will not be studied in this thesis, the data do suggest that different people have very different reactions to seeing nudity.

Lastly, the data revealed very low means for all the emotion reactions save for arousal, which was around the half-way point of the scale. One explanation for these low means is the measurement tool used. The measurement asked participants to indicate their agreement to feeling discrete emotions, but many participants may not have felt very strong emotions, and thus would have indicated very low agreement. The value '7' for instance meant that one 'strongly agreed' that one was feeling guilty, which may have been too strong of a statement for many. Moreover, as the measurement tool is a direct measure, some participants may not have felt comfortable disclosing their negative emotions as admitting feeling these emotions can be painful. Based on these two considerations, a more appropriate measure – such as the GNA scale – for emotions should be employed in future studies to better capture the effects of nudity on emotions.

Now that it has been established that nudity elicits guilt, the full effect of this thesis can be investigated.

14. Study 7

The purpose of study 7 was to demonstrate that nudity has an effect on real pro-social behaviour. Specifically, the study was designed to show that after evaluating ads containing nudity, participants on mTurk were significantly more likely to volunteer for an extra survey when asked than their counterparts who did not see nudity.

14.1 Method

The study had a simple 2-cell design with a nude ad condition and a control ad condition. 185 participants were instructed to complete two unrelated tasks as part of the experiment on mTurk.

The first task of the experiment was to complete the same ad evaluation task as in previous studies. Participants were asked to look at the three advertisements for diet pills featuring either a dressed or an undressed model and were asked how much they liked the design of the ad and the looks of the model. The stimuli can be found in appendix C. Each image was displayed for 10 seconds to make it more likely that participants actually looked at the ads. The dependent variable of this study was the participation in an additional, unpaid, survey. This dependent variable is commonly used within the literature as a measure of pro-social behaviour (e.g. Winterich, Mittal, and Aquino 2013; Twenge et al. 2007). Before continuing with the second task, which was positioned as a personality task that contained demographic variables, participants were informed that a junior member of the research team needed participants for a small pre-test. The pre-test was unpaid and entirely voluntary, and would take 5 extra minutes to complete in addition to the 10 minutes spend on the paid survey. It was clear from the instructions that not participating in the task would not influence the payment for the main study.

After reading this message, participants were asked whether they would want to help the junior member by volunteering for the extra survey. This choice variable was the dependent measure of the study. If they selected yes, participants were informed that the extra task would be made available after the main survey was completed. All participants were then taken to the personality task where they provided demographic information.

The additional task at the end of the experiment was a task that required participants to read five articles and to judge whether these were 'fake news' or not. In the instruction of the task participants were reminded that this task was voluntary and were thanked for their help. All

participants who indicated that they would volunteer for the extra task also completed the task. Both the dependent variable and additional task can be found in appendix F.

14.2 Results

The cleaning of the data for this study, and all studies, is included in appendix A and will not be discussed in the main text. Likewise, the demographic characteristics for all samples used in this thesis can be found in appendix B and will also not be discussed in detail unless relevant.

In the control condition, 29 (29.5%) chose to volunteer where 69 did not, but for the nudity condition 38 (43.7%) chose to participate whereas 49 did not. The data are visualized in figure 9. The difference between conditions was marginally significant ($\chi 2 = .066$; $F = 4.002$, $p = .047$). Although there was a main effect of gender on participation ($F(184, 1) = 5.891$, $p = .016$) such that women were more likely to volunteer, there was no significant interaction with nudity ($F(184, 1) = .506$, $p = .478$).

Figure 9: Results for volunteering (study 7)
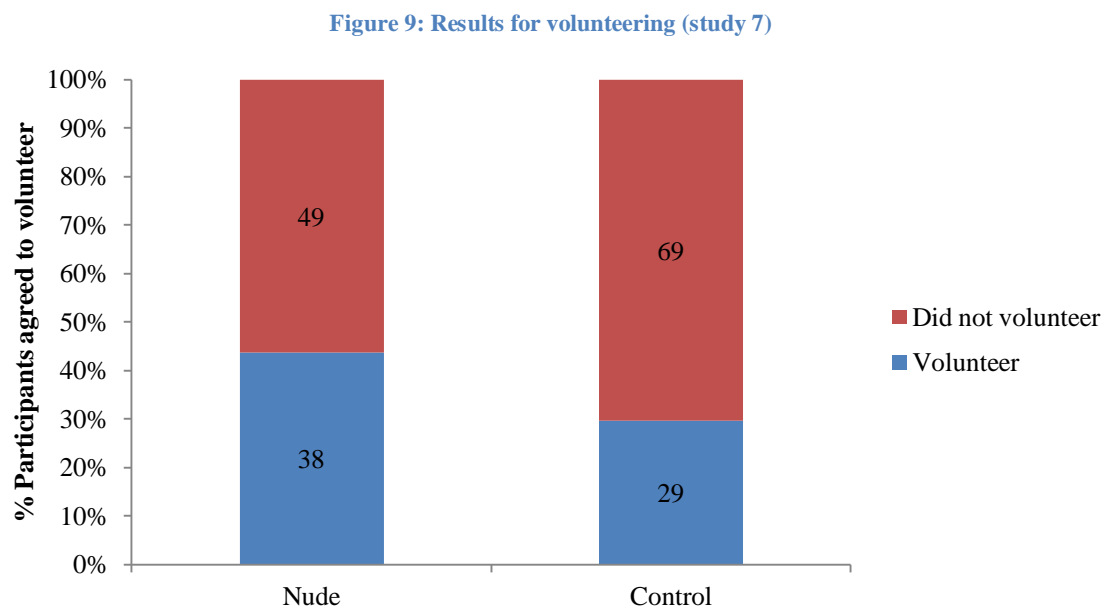
14.3 Discussion

This simple study demonstrated that respondents on MTurk were more likely to participate in an additional and unpaid survey after viewing ads with nudity (vs. ads without nudity). Participation in an unpaid survey is used in the literature as an indication of pro-social behaviour (e.g. Winterich, Mittal, and Aquino 2013). This is thus an important finding

because it demonstrates that not only does nudity in advertising lead to higher pro-social intention, it translates into real pro-social behaviour.

A second important finding is that there is no interaction of nudity in ads with gender. In other words, women are not more likely than men to volunteer after viewing nudity in ads. In the previous two studies, it was demonstrated that arousal is based on a gender difference, whereas feeling guilt is not. When combining this with the present study, it suggests that the effect on volunteer behaviour – and lack of differences between those of different gender – is not driven by arousal.

In the next study, the role of guilt will be examined directly by administering the GNA scale.

15. Study 8

The purpose of study 8 was to replicate the effect found in study 7 with a different measure for the dependent variable pro-social behaviour and to demonstrate that guilt mediates the relationship between nudity and pro-social behaviour. The scale developed in studies 1-4 was administered to show that the scale is sensitive to manipulations of nudity in advertisements and that only one type of guilt mediates the relationship between nudity in ads and pro-social behaviour.

15.1 Method

202 participants were recruited via MTurk. The study had two conditions: participants rated the three advertisements for diet pills containing female nudity or three control ads featuring the same model fully clothed. Participants were warned in advance that the study could contain adult content and were informed that they could withdraw from the study at any time without providing an explanation.

Participants rated the advertisements that they viewed in terms of how much they liked the overall design of the ad and how much they liked the model featured in the advertisement. After this task, they completed the developed GNA scale.

The final – ostensibly unrelated – task of the study was a measure of pro-social behaviour. Participants read a description of a charity called "A Healthier Tomorrow", which aimed to change people's diet and exercise habits. The measure, developed by Winterich and Zhang (2014), asked participants to indicate, if the charity was near to them, how likely they would do the following: donate money, volunteer time, donate supplies, and spread the word (see below for full measure). The responses were combined to form a composite of likelihood to help the charity.

Table 28: Scale items dependent variable (study 8)

	Items: scale from 1 very unlikely to 7 very likely
1	Donate money
2	Volunteer time to assist with administrative tasks
3	Volunteer time where your skills best fit with the organization's goals
4	Donate supplies that are relevant for the organization to achieve its goals
5	Sign a petition to increase funding for this organization
6	Spread the word about this organization to others (e.g., share on Facebook, Twitter, etc.; tell family, friends, co-workers, etc.)
7	Ask other people to sign a petition to increase funding for this organization

15.2 Results

The scale was sensitive to manipulations of guilt through the use of nudity in advertisements. Specifically, participants reported significantly higher means in the nude advertisement condition ($M_{self} = 3.04$; $M_{other} = 3.01$) than in the control condition ($M_{self} = 2.32$; $M_{other} = 2.26$), but there was no difference for the guilt for society dimension. The full statistics are reported in table 29.

Table 29: Statistics for GNA scale (study 8)

	Condition	Mean (1-7)	Std. Dev.	N	F	Df	Significance
Guilt for society ($\alpha = .910$)	Control	2.85	1.48	43	1.148	1	.287
	Nude	3.19	1.55	53		1	
Guilt for self ($\alpha = .970$)	Control	2.32	1.21	43	5.638	1	.020
	Nude	3.04	1.67	53		1	
Guilt for other ($\alpha = .965$)	Control	2.26	1.25	43	6.137	1	.015
	Nude	3.01	1.65	53		1	
Intention to help ($\alpha = .916$)	Control	3.58	1.71	43	6.996	1	.010
	Nude	4.37	1.20	53		1	

There was a main effect of nudity such that those who have evaluated nude ads were more likely to help the charity later ($M_{nude} = 4.37$ vs. $M_{control} = 3.58$, p = .010). Moreover, a multiple mediation analysis using PROCESS model 4 with 5000 bootstraps demonstrated that only one dimension – guilt for hurting the self – mediated the relationship. The effect and confidence interval can be seen below in table 30. Note that the coding for the independent variable was 1 for nude and 0 for control.

Table 30: Mediation results (study 8)

	Effect (β)	Boot SE	LLCI	ULCI
Guilt for society	.0987	.1215	-.0578	.4696
Guilt for self	.2882	.2272	.0096	1.0339
Guilt for other	.2052	.1817	-.0509	.7239

Figure 10: Results for mediation analysis (study 8)
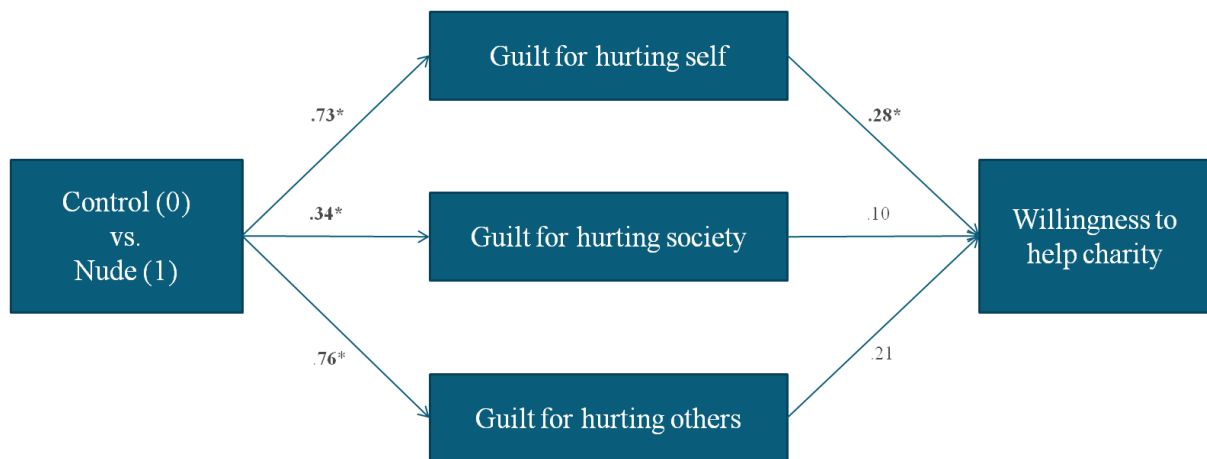
As expected, there was no interaction of nudity and gender on the intention to help the charity. Moreover, when controlled for gender, the mediation analysis remains consistent: guilt for hurting the self mediates the effect (CI is .02 to .96) whereas the other two types of guilt remain insignificant.

15.3 Discussion

This study demonstrated that participants reported higher levels of guilt for hurting the self and guilt for hurting others around them after watching an advertisement featuring nudity than after viewing a control ad, but not higher levels of guilt for hurting society. Furthermore, participants that watched nudity reported a higher intention to help a charity focused on diet and exercise. The mediation analysis showed that only guilt for self mediated this relationship.

It was important to show that levels of guilt experienced can be manipulated as it showed that the scale measures state guilt – and not trait guilt like the guilt inventory (Jones, Schratter, and Kugler 2000). Moreover, the scale was designed to be used in experiments to establish

mediation of guilt and that downstream consequences are caused by specific types of guilt, rather than by all three types.

The scale did not have an effect on guilt on society, which is interesting considering the theoretical prediction that nudity in ads should increase all three types of guilt. An explanation for this result could be the context of the stimuli used. Diet pills may be controversial within society in general, and therefore an advertisement for diet pills could be considered offensive without the model featured. The added effect of the nudity may not have been strong enough to overcome this basic effect. The results support this explanation: the lack of effect was driven by a higher mean for the control condition compared to other control conditions, rather than by a lowered mean in the nude condition.

This study replicated the effect found in the previous study by using a different measure for pro-social behaviour, namely intention to help a charity. In the remainder of the studies, this main effect will not only be replicated but several important moderators will be established. Moreover, different stimuli and different measures for the dependent variable were used in subsequent studies to improve generalizability.

16. Study 9

The purpose of study 9 was to investigate the first proposed moderator: appropriateness of nudity. Nudity that is considered appropriate would not be a transgression, meaning that there is no reason to feel guilt. If there is no guilt, then there should not be an effect on pro-social behaviour. Therefore, it was proposed that the positive effect of nudity on pro-social behaviour would be eliminated when the nudity is considered fitting to the context.

16.1 Method

The study had a 2 (nudity: nude vs. control) by 2 (context: lifestyle magazine vs. art magazine) between-subjects design. 198 participants were instructed to complete several unrelated tasks as part of the experiment on mTurk.

The first task consisted of a magazine cover evaluation task in which both factors were manipulated. The magazine covers were created specifically for this study by the same method as described earlier: five images of different models were selected to form the background of the image. Nudity was manipulated by presenting a fully dressed or fully undressed female model in the image.

The second factor, context, was manipulated by the type of magazine the cover was for. The first type was a women's lifestyle magazine called "Lifestyle" that featured headlines such as "spring's prettiest hair ever" and "help for beauty hoarders". Nudity on the cover of such as magazine would be considered inappropriate because this type of magazine rarely has such a cover in the real world and is sold and displayed around children (e.g. in supermarkets, in living rooms). It was therefore expected that the main effect as found in previous studies would be replicated for this condition – i.e. a significant difference in pro-social intention such that it is higher after viewing the Lifestyle magazine with a nude cover.

The second type of magazine was the "Artwick", which was positioned as an artsy photography magazine with items like "perfect your portraits" and "prime lenses you need to know about". Photography magazines sometimes feature nude or semi-nude models as a type of art and thus it would be relatively more appropriate to feature nudity in this context. It was therefore predicted that there would be no difference in pro-sociality following a viewing task of this type of magazine. The cover text for both covers was created by taking inspiration from pictures of real-life magazine covers. The stimuli used in this study are included in appendix C.

The second task of this study was a 'personality test' in which the dependent variable was administered. The dependent variable was a measure of general pro-social behavioural intention used by Cavanaugh, Bettman, and Luce (2015). Participants were asked to indicate their likelihood to engage in a variety of behaviours within the next month. Seven items, such as getting a massage and seeing a movie, were filler items and seven items, such as donating used clothes and refusing to buy a product because it was tested on animals, were pro-social items. The pro-social items were averaged to form a composite of behavioural intention; the scale items were reliable ($\alpha = .875$). The measure is displayed in table 31.

Table 31: Items pro-social dependent variable (study 9)

In the coming month, how likely is it that you will do the following? (1 very unlikely – 7 very likely)			
	Pro-social item		*Filler item*
1	Buy locally grown produce.	1	See a foreign film.
2	Donate used items/ clothing to a charitable organization to help local families in need.	2	Attend a local wine or food tasting event.
3	Buy products made from recycled materials, helping to preserve local forest lands.	3	Take a trip out of the country.
4	Volunteer your time to a charitable organization benefiting local youth.	4	Eat at a Japanese restaurant.
5	Refuse to buy a product if it is made using child or sweat shop labor in foreign countries.	5	Attend a live music concert.
6	Buy a product that donates part of its profits to a charitable organization helping refugee families in a foreign country.	6	Purchase a movie DVD.
7	Donate money to a charitable organization / cause benefiting rainforest conservation in foreign countries.	7	Have a professional massage.
8	Refuse to buy a product because it was tested on animals abroad.		

The final task of the experiment was a manipulation check test in which participants were shown the same covers they had evaluated. As the final task, participants completed demographic questions.

16.2 Results

A manipulation check for appropriateness revealed that the manipulation was successful. Lifestyle magazine was perceived as significantly more about lifestyle than Artwick (p = .001), and Artwick was perceived more than Lifestyle as a magazine about photography (p = .000). Moreover, there were no significant effects of any condition on perceptions of magazine genuineness. There was no difference between Lifestyle and Artwick in terms of how appropriate it would be to display this magazine in a supermarket (p = .552), but Artwick was seen as significantly more appropriate in the upscale bookstore (p = .016). The exact questions asked as manipulation checks for this and later studies can be found in appendix F.

There was a main effect of nudity and a significant interaction effect on the intention to behave in a pro-social way. The main effect of appropriateness was not significant. Simple effects analysis revealed the underlying pattern of the data. When the context of the nudity was considered inappropriate (Lifestyle magazine), nudity increased pro-social behavioural intention. However, when the context was more appropriate for nudity (Artwick), there was no difference between behavioural intentions. The descriptive statistics and simple effects are presented in table 32, table 33 and figure 11.

Table 32: Statistics for main and interaction effect (study 9)

Pro-social intention			Descriptives		Statistics		
		N	M	sd	F	df	p
Main effect of nudity	Nude	91	**4.25**	1.39	4.498	1	.035
	Dressed	107	**3.81**	1.51			
Main effect of context	Lifestyle	98	**3.94**	1.56	.258	1	.612
	Artwick	100	**4.08**	1.37			
Interaction effect		198			4.219	1	.041

Table 33: Statistics for planned simple contrasts (study 9)

Pro-social intention	Nude			Dressed					
	M	SD	N	M	SD	N	F	df	p
Lifestyle	**4.41**	1.47	45	**3.54**	1.54	53	7.913	1	.006
Artwick	**4.07**	1.45	46	**4.09**	1.29	54	.002	1	.960
F	1.200			3.347					
df	1			1					
p	.276			.070					
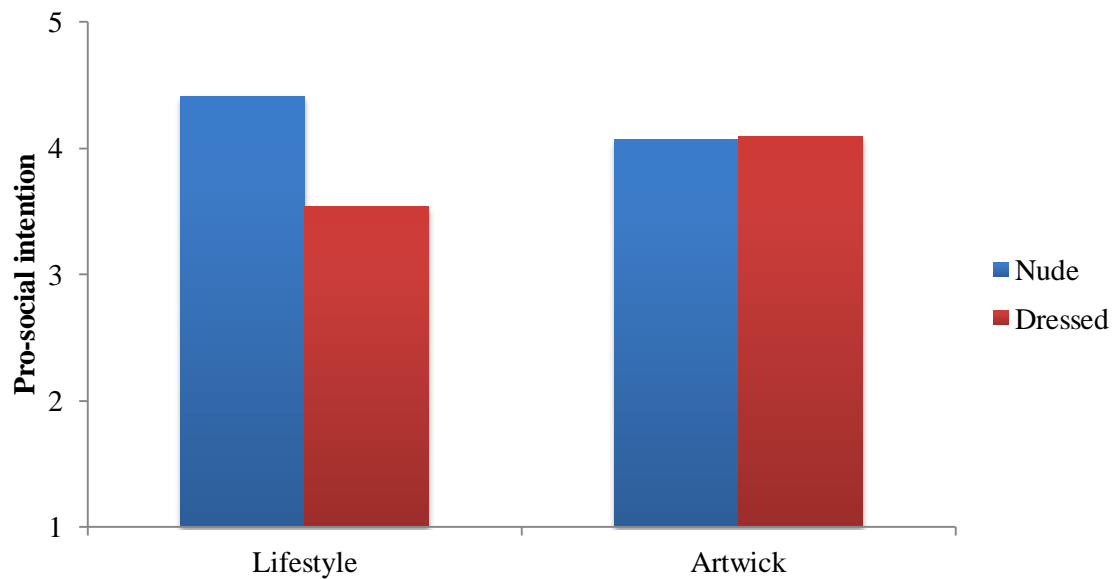
There was a significant main effect of gender ($p = .013$) on pro-social intention such that women were significantly more likely to be pro-social, but there were no significant interaction effects of appropriateness ($p = .277$) or nudity ($p = .310$), and the three-way interaction was also insignificant ($p = .334$).

16.3 Discussion

This first moderation study replicated the main effect found in previous studies such that nudity increased pro-social behaviour. However, this effect was moderated by the role of nudity appropriateness. When the nudity was perceived as appropriate because it was featured in an art photography magazine, the effect of nudity disappeared. When the nudity was perceived as inappropriate, such as on the cover of a women's lifestyle and health magazine, there is an effect of nudity (vs. control) on intention to be more pro-social in the coming month.

This study demonstrated the important moderating role of context, suggesting that when the context makes the nudity seem appropriate, there is no guilt and therefore no need to be more pro-social. The study also used new stimuli and a new measure of the dependent variable to enhance generalizability of the effect.

Although the effect is only marginally significant, there is a higher pro-social intention for the Artwick-control condition than there is for the Lifestyle-control condition. In other words, people become more pro-social after evaluating ads for the more artistic magazine than they

did rating the general lifestyle magazine. One explanation for this effect is related to status: pro-social behaviour is associated with higher status (e.g. Griskevicius et al. 2010). If a photography magazine is considered something associated with people of higher status, then it would not be surprising that priming higher status leads to increase pro-social intention in the present study.

The purpose of this study was to demonstrate that making nudity appear appropriate eliminates the effect on pro-social behaviour. It is possible that the manipulation used in this study is not the most ideal manipulation to demonstrate this. For example, it is possible that the aforementioned effect of status plays a role, because the effect is not only driven by a decrease in pro-social intention for the nudity conditions but also driven by an increase in the dressed conditions. This suggests that the manipulation may be affecting more than merely the appropriateness of the nudity. However, taken together with the other studies in this thesis, this study provides additional evidence that is very much in line with the theoretical framework.

17. Study 10

In this study, participants were either exposed to positive or negative self-affirmation of their moral self after viewing nudity. If the effect of nudity on pro-social behaviour is driven by guilt over moral transgression, then reaffirming one's morality should eliminate the effect. Moreover, the role of religiosity was examined to provide further evidence that guilt drives the effect of nudity on pro-social behaviour.

17.1 Method

The present study had a 2 (nudity: nude versus control) by 2 (affirmation: positive versus negative) by religiosity (continuous) between-subjects design. Nudity was manipulated by asking 198 participants on mTurk to rate the Lifestyle magazine covers used in the previous study through the same task.

After this initial task, participants were asked to write a short story about themselves using positive or negative words. This manipulation was used in previous literature by Sachdeva, Iliev, and Medin (2009) to manipulate affirmation of the moral self-identity. The task was identical to that task and therefore not pre-tested further. Specifically, participants were first asked to copy six words (e.g. loyal or disloyal) and then write a brief story about themselves using these six words. As per the recommendation of Sachdeva, Iliev, and Medin (2009), participants were instructed to only write about themselves in this task, as writing about others diluted the effect of the task in previous studies using this manipulation. The neutral condition was excluded as previous studies using this manipulation found this condition non-informative (Sachdeva, Iliev, and Medin 2009, study 1). The full task can be found in appendix F. After completing this task, participants indicated their intention to be pro-social included in the previous study and appendix F.

The final part, the standard demographics, was supplemented with a new measurement. Religiosity was assessed by means of asking how spiritual/religious the participants perceived themselves to be, ranging from not at all to very much so (Gorsuch and McPherson 1989).

17.2 Results

Not all participants successfully completed the affirmation task. Five participants were excluded from the analysis because they copied the wrong words (e.g. writing 'meow' instead of the instructed word).

As with the previous study, the pro-social intention scale had sufficient reliability (Cronbach's α = .866, 7 items). There were no significant main effects of nudity or affirmation on the dependent variable. However, the two-way interaction was significant. See also table 34.

There was no three-way interaction with gender (p = .410).

The simple effects are displayed in table 35. The effect of affirmation on the relationship between nudity and pro-social behaviour seems to be driven by the positive affirmation condition. Specifically, when the participants were asked to reaffirm their moral personality in a positive way, they were less likely to be pro-social compared to those that had a negative affirmation. Moreover, there was no difference in pro-social intention between the nude and control conditions after positive affirmation. Participants who negatively reaffirmed themselves were more likely to be more pro-social after watching nudity than those that watched the control advertisement.

Table 34: Statistics for main and interaction effect (study 10)

Pro-social intention		Descriptives			Statistics		
		N	M	sd	F	df	p
Main effect of nudity	Nude	102	**4.17**	1.51	.626	1	.430
	Dressed	96	**4.01**	1.40			
Main effect of affirmation	Positive	104	**4.00**	1.44	.681	1	.410
	Negative	94	**4.20**	1.48			
Interaction effect		198			5.886	1	.016

Table 35: Statistics for planned simple contrasts (study 10)

Pro-social intention	Nude			Dressed					
	M	SD	N	M	SD	N	F	df	p
Positive affirmation	**3.82**	1.39	49	**4.16**	1.48	55	1.433	1	.234
Negative affirmation	**4.49**	1.57	53	**3.82**	1.29	41	4.383	1	.030
F	5.221			1.308					
df	1			1					
p	.024			.256					

There was also no main effect of nudity, affirmation, or an interaction on the control scale items for the dependent variable. The statistics are reported in table 36.

Table 36: Statistics for main and interaction effect (control items, study 10)

Pro-social intention (control items)		Descriptives			Statistics		
		N	M	sd	F	df	p
Main effect of nudity	Nude	102	**4.99**	1.24	.159	1	.691
	Dressed	96	**5.08**	1.33			
Main effect of affirmation	Positive	104	**5.04**	1.21	.001	1	.970
	Negative	94	**5.03**	1.36			
Interaction effect		198			.847	1	.358

The sample exhibited a good range of religiosity (see figure 12), where 80 participants (about 40%) indicated there were not religious at all and the other 60% indicated some level of religiosity. The moderating role of religiosity was assessed using PROCESS model 3, where nudity served as the main independent variable (X), affirmation as the first moderating variable (M), and religiosity as the second moderator (W). A covariate for exact religion (including agnostic and atheist options) was included to control for any variance caused by specific religions. There was significant moderation of religiosity such that the interaction of nudity and affirmation only happened for those participants who were more religious. The interaction is insignificant at value 1 (not at all) of religiosity, but becomes significant as religiosity increases (see table 37 for statistics).

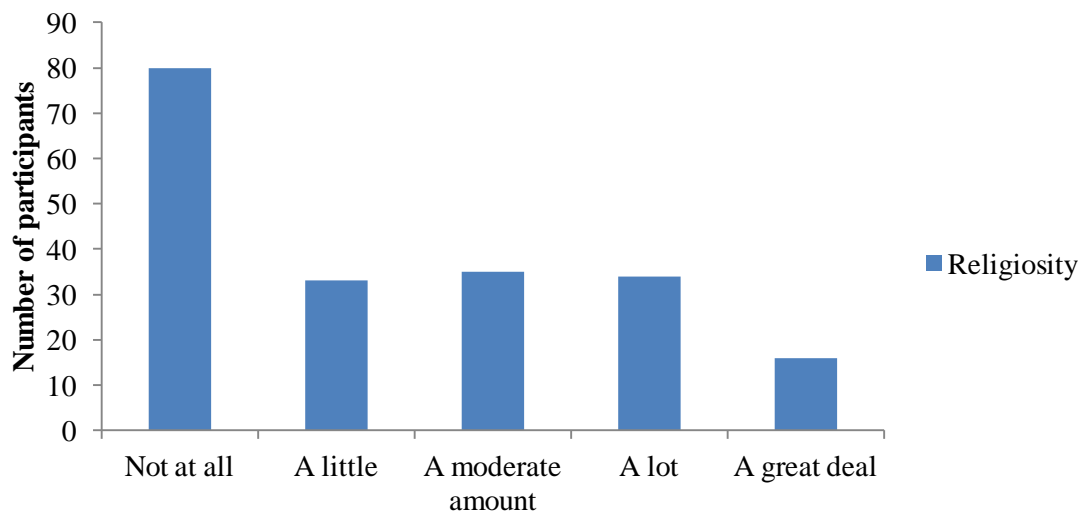**Figure 12: Distribution of variable religiosity (study 10)**

Table 37: Moderation effect for religiosity (study 10)

Religiosity	Interaction effect Affirmation and nudity on DV	LLCI	ULCI
1.00	.9956	-.1858	2.1771
2.35	1.1238	.2899	1.9576
3.72	1.2530	.0692	2.4367

17.3 Discussion

The present study demonstrates three important results for the thesis. First, it was shown that when participants re-affirm their moral identity in a positive way, the effect of nudity on pro-social behaviour becomes insignificant. This strongly suggests that watching nudity in advertising hurts the moral self and that this can be remedied by bolstering the moral self through self-affirmation.

Second, the study shows that there is no effect of nudity in advertising on those items that were not pro-social (i.e. the filler items). This has two implications. The effect appears not to be driven by a general action tendency and/or higher arousal caused by watching nudity, because then there would be a general effect on intention to do things, rather than only on the pro-social items. Moreover, the findings suggest that the opportunity and/or the anticipation of being pro-social enhance one's moral self and are seen as ways to repair morality.

Third, the results with respect to religiosity in this study strongly suggest that there is a moral dimension to watching nudity in advertising, as those that were affected the most were also the most religious, which is generally associated with morality.

All of these effects are also important pieces of evidence for the mediating role of guilt. The affirmation task was designed to re-affirm moral identity, meaning that participants saw themselves as moral individuals that had no reason to feel guilt. Therefore, the positive affirmation task reduced guilt and with it, the need to be pro-social.

The moderating role of religiosity also suggests the mediating role of guilt. Those with higher levels of religiosity are more likely to experience guilt (e.g. Demaria and Kassinove 1988). The finding that the interaction of nudity and affirmation only occurs at higher levels of religiosity suggests that the effect is driven by higher levels of guilt experienced by those who are more religious.

18. Study 11

The purpose of this final study was to test the last two proposed moderators: the context of viewing the advertisements and the type of charity that needs help. First, it was proposed that the effect of nudity on pro-social behaviour would be attenuated when the nudity was seen in a public context. The reason for this is that the transgression is committed collectively and therefore is seen as permitted; everyone does it so therefore it is acceptable.

The second moderator tested was the type of charity that requires help. The first type charity focuses on long-term improvements that make the beneficiaries eventually independent of the donor, whereas the second type of charity only provides short-term solutions to solve immediate problems. The prediction was that the effect of nudity is stronger for charities focused on long-term solutions charities. This is the case because being concerned with the moral self activates a higher level of construal, which is a better match for the message of a charity focused on development aid than a message for a charity focused on emergency aid.

18.1 Method

The study had a 2 (nudity: nude vs. control) by 2 (context: public vs. private) by 2 (charity: long-term vs. short-term-oriented) between-subjects design. 375 participants were recruited via mTurk to participate in this experiment that was positioned as a collection of unrelated tasks.

The first task of the experiment was the same ad evaluation task of a diet pill ad used before. However, one major change was made to manipulate the context of the viewing. In the private viewing, participants were asked to imagine that they were "surfing the internet alone and came across the following advertisement." In the public condition, participants were asked to imagine that they and a friend were "surfing the internet together and came across the following advertisement."

The second task of the experiment was a donation study. Participants read a description of the charity "A Healthier Tomorrow", the same charity featured in study 8. The long-term-oriented charity description was identical to the description used in study 8, however, the manipulation for short-term was created by changing the focus of the charity to short-term urgent aid. An overview of the differences between the two descriptions can be found in appendix F. Participants then completed the manipulation check and questions about their intention to help the charity using the same items as in study 8.

The final task of the experiment was to complete demographic information.

18.2 Results

The data were collected in two waves. A dummy variable was included as a control variable in all the analyses to account for any variation caused by the differences between waves. A comparison of demographics did not yield any significant differences between the two groups.

A simple manipulation check revealed that short-term charities were seen as significantly more focused on immediate solutions (M = 4.02) and long-term charities were seen as more focused on long-term development (M = 5.25, $F(375, 1) = 56.280$, p = .000).

None of the main effects of nudity, context, and charity type were significant. The two-way interaction of nudity and context was significant (p = .036) and the two-way interaction between context and charity type was also significant (p = .042). Most importantly, the three-way interaction of all factors was significant (p = .033). A breakdown of the means and simple effects analysis revealed the underlying pattern of the data, and can be found in **Error! Reference source not found.**table 38, table 39, table 40, figure 13 and figure 14. Women were significantly more likely to help the charity (p = .006), but there was no significant interaction of gender at any of the higher levels of interaction.

**Table 38: Statistics for main and interaction effects (study 11)**

Intention to help charity		Descriptives			Statistics		
		N	M	sd	F	df	p
1. Main effect of nudity	Nude	187	**4.01**	1.60	.025	1	.874
	Dressed	188	**4.03**	1.64			
2. Main effect of context	Public	189	**4.14**	1.58	2.339	1	.127
	Private	186	**3.90**	1.66			
3. Main effect of charity type	Long-term	189	**4.05**	1.49	.266	1	.606
	Short-term	186	**3.98**	1.75			
Two-way interaction effect for 1 & 2					4.439	1	.036
Two-way interaction effect for 1 & 3					.007	1	.935
Two-way interaction effect for 2 & 3					4.157	1	.042
Three-way interaction effect					4.596	1	.033

The planned simple contrasts looked at the two-way interaction for the two different charity types separately. For the short-term-oriented charity, there was a significant main effect of context charity such that those who viewed the advertisements with a friend had higher helping intentions than those who viewed the ads alone. There was no effect of nudity or an interaction effect, as can be seen in table 39 and figure 13.

Table 39: Statistics for main and interaction effect (short-term charity, study 11)

(short-term charity) Intention to help charity		Descriptives			Statistics		
		N	M	sd	F	df	p
Main effect of nudity	Nude	90	**3.96**	1.72	.024	1	.876
	Dressed	96	**4.00**	1.78			
Main effect of context	Public	94	**4.27**	1.66	5.280	1	.021
	Private	92	**3.68**	1.79			
Two-way interaction effect		186			.001	1	.981

Figure 13: Results for short-term oriented charity (study 11)

Short-term-oriented charity
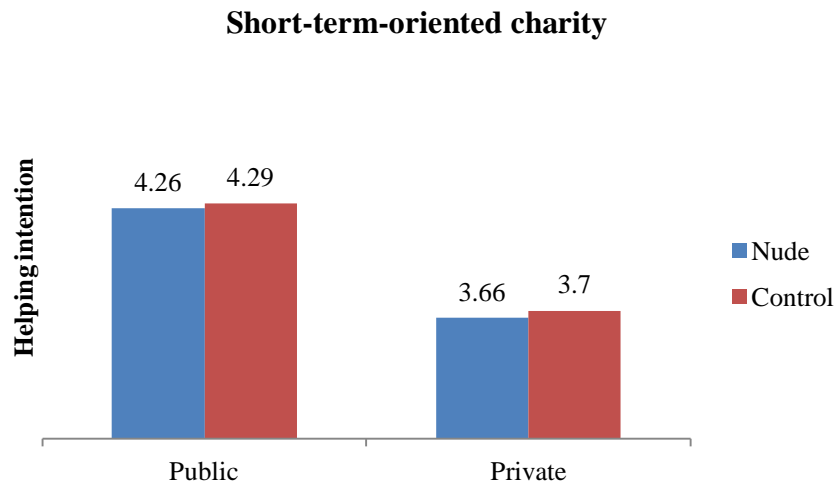
The pattern was remarkably different in the long-term-orientated charity conditions. There was a significant interaction of nudity and context. In the private condition, nudity increased intention to help the charity. However, in the public condition, this pattern reversed such that nudity actually decreased helping intention. The full statistics are reported in table 40, table 41 and are illustrated in figure 14.

Table 40: Statistics for main and interaction effect (long-term charity, study 11)

(long-term charity) Intention to help charity		Descriptives			Statistics		
		N	*M*	*sd*	*F*	*df*	*p*
Main effect of nudity	Nude	97	**4.04**	1.49	.004	1	.952
	Dressed	92	**4.06**	1.50			
Main effect of context	Public	95	**4.00**	1.49	.158	1	.692
	Private	94	**4.10**	1.49			
Two-way interaction effect		189			10.988	1	.001

Table 41: Statistics for planned simple contrasts (long-term charity, study 11)

(long-term charity) Intention to help charity	Nude			Dressed					
	M	SD	N	M	SD	N	*F*	*df*	*p*
Public	**3.66**	1.59	50	**4.38**	1.29	45	5.721	1	.019
Private	**4.45**	1.26	47	**3.76**	1.63	57	5.273	1	.024
F	7.225			4.058					
df	1			1					
p	.008			.047					

Figure 14: Results for long-term oriented charity (study 11)


Long-term-oriented charity
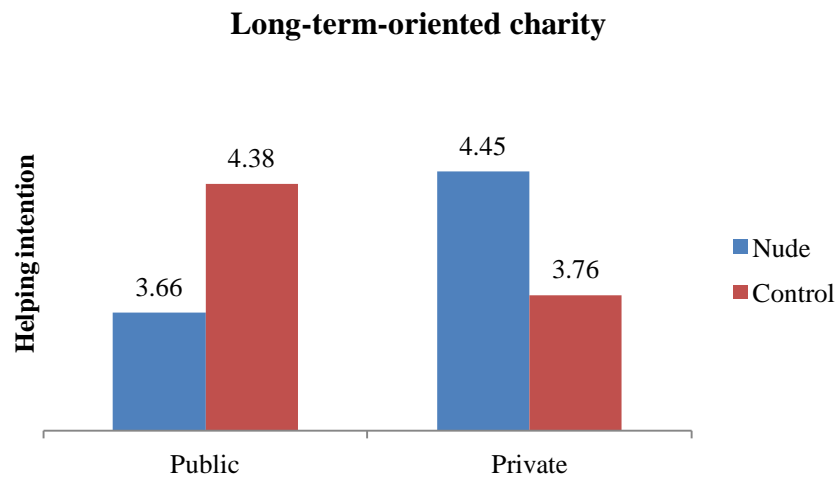
18.3 Discussion

This final study demonstrated that the main effect of nudity on pro-social behaviour is moderated by whether the ads are seen in public or in private and the charity type. The data were analyzed based on charity type.

First of all, the effect of higher helping after seeing nudity in ads was replicated in the private viewing condition of the long-term focus charity "A Healthier Tomorrow". This condition was identical to the condition used in study 8 and the effect was replicated in this study. The replication of the main effect in the private condition suggests that the long-term-oriented charity can function as a way to restore the moral self. The effect is shown below in figure 15.

Figure 15: Results for private viewing, long-term oriented charity (study 11)

Long-term-oriented charity
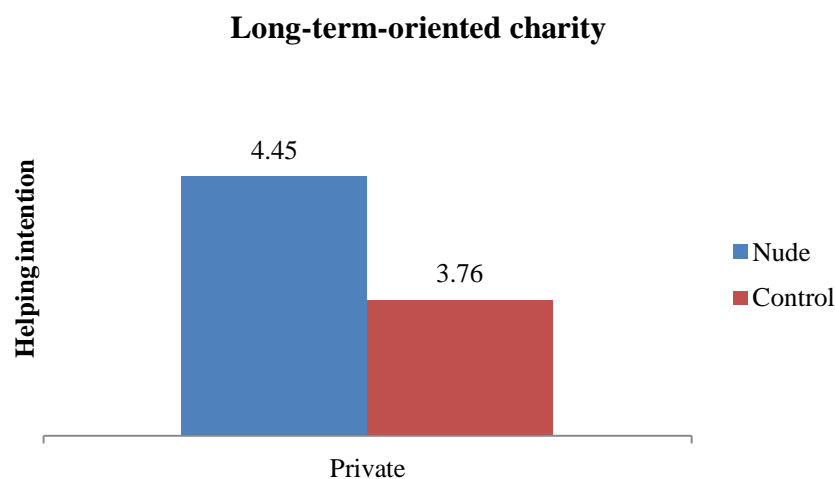
Planned simple contrasts were then used to explore the other effects. The first significant difference is that between the public and private condition for nude ads, long-term charity. The effect was such that helping intention for the long-term oriented charity were higher when viewing nudity was done in private than when it was done together with a friend. One possible explanation for this is that nudity in ads elicits both shame and guilt, but their relative strength depends on the viewing context. In a private context, the dominant emotion is guilt, but in the public context, the dominant emotion becomes shame. As shame is associated with avoidance tendencies, it reduces one's intention to help the charity. The effect is shown below in figure 16.

Figure 16: Results for nudity conditions, long-term oriented charity (study 11)

Long-term-oriented charity
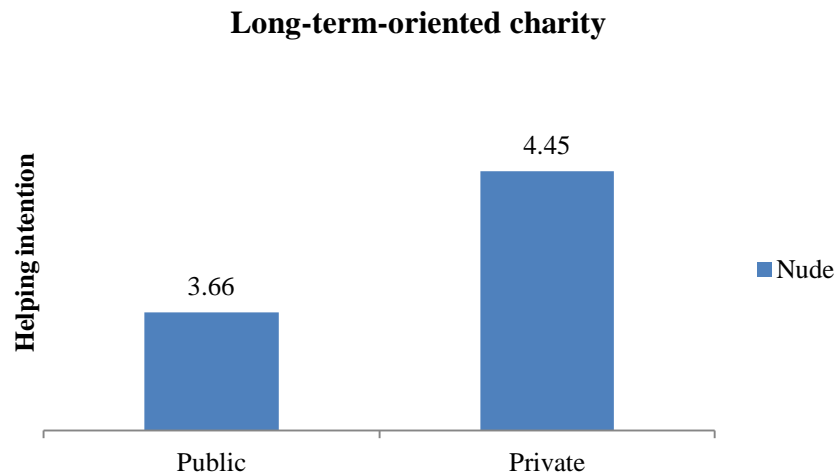
A second significant difference was for the long-term focus charity after viewing the regular,
non-nude ads. Specifically, helping intention was higher when viewing the regular ad
together with a friend than when viewing the ad alone. This effect of public viewing is
consistent with previous literature that suggests those in public situations are more likely to
make donations (White and Peloza 2009). The effect is shown below in figure 17.

Figure 17: Results for control conditions, long-term oriented charity (study 11)

Long-term-oriented charity
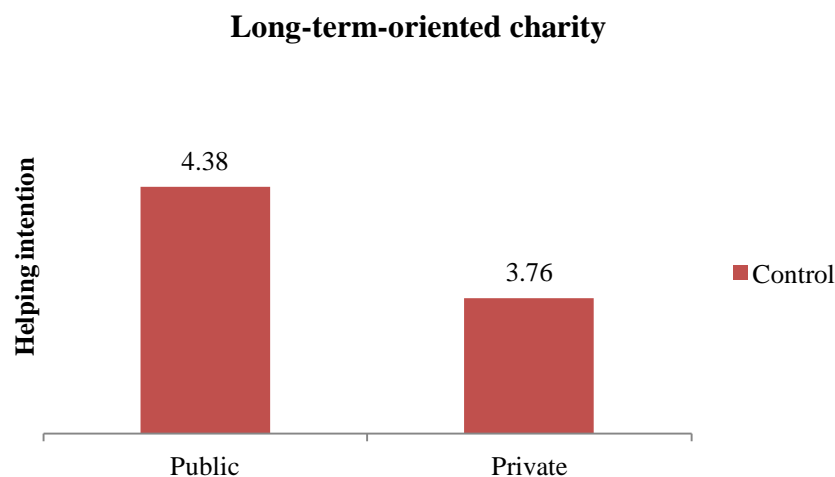
There was no effect of nudity for the short-term oriented charity. The higher helping intention
in the public conditions compared to the private conditions can be explained by the same

general increase in donation intention when in public as observed for the short-term-oriented charity. The effect is shown below in figure 18.

Figure 18: Results for short-term oriented charity (study 11, discussion)

Short-term-oriented charity
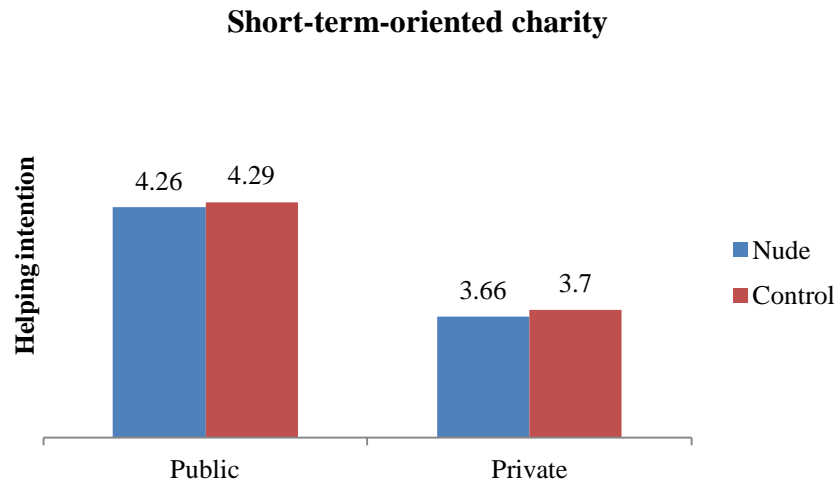
The final interesting effect is the comparison between helping intention for the long-term and short-term charity in the private viewing condition. Helping was only higher after viewing nudity and for the long-term charity, but not for the other combinations. The effect is shown below in figure 19. This absence of effect in the short-term-charity conditions is consistent with the idea that messages that are not matched to construal level are generally ineffective (e.g. While, MacDonnell and Dahl 2011).

Figure 19: Results for private viewing (study 11)

Private viewing of ads
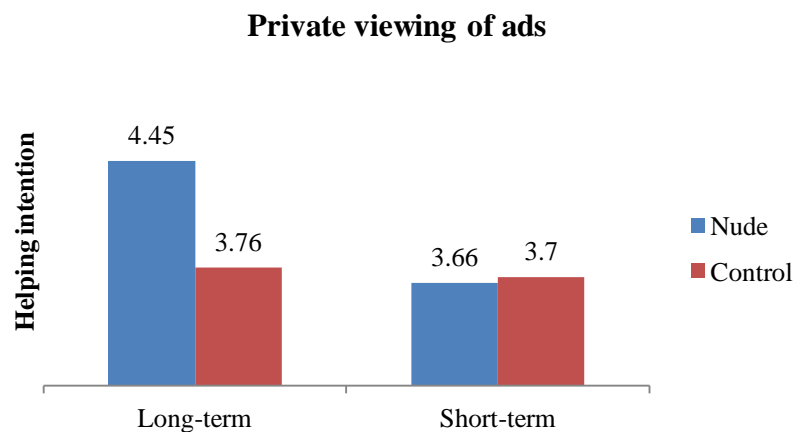
GENERAL DISCUSSION

19. General discussion

19.1 Summary of findings

The core thesis of this project was that nudity in advertising leads to feelings of guilt and subsequently increases pro-social behaviour. It was argued that nudity in marketing communications is perceived as unethical and makes one feel immoral about being unable to prevent oneself from staring. This guilt is specific to guilt for hurting the self because the watching the nudity hurts one's own sense of morality, rather than hurting others or society in general. Pro-social behaviour is generally considered a moral action that produces positive affect. Therefore, when one feels guilt for having compromised the moral self, one of the most effective ways to restore the self and reduce the guilt is to become more pro-social. Based on a conceptualization by Dahl, Honea and Manchanda (2003), a new instrument was developed in studies 1-4 in order to measure three types of guilt resulting from watching advertisements that feature offensive material. The Guilt from Offensive Advertisements (GNA) scale measures the level of guilt for harming the self, guilt for harming others, and guilt for harming society after watching ads using six to nine items per dimension. The scale had a solid factorial structure and appropriate fit. Moreover, it correlated with several existing guilt measures, personality variables, and demographic variables.

Studies 5 and 6 were conducted to support the basic premise of the thesis that nudity in advertising can make people feel guilt. The previous literature on nudity had not directly studied guilt, but several findings indicated that it was possible that guilt would be elicited under certain circumstances. The basic reason for why nudity would elicit guilt is that people automatically look at other people but it is morally unacceptable to do so when they are naked. The automatic looking at nudity is therefore considered wrong and people feel guilt for not having inhibited themselves. The studies demonstrated that guilt followed nudity in advertising and was also elicited when statistically controlled for arousal. Moreover, the pattern of means for guilt was different from the patterns of arousal, shame, and embarrassment in that guilt was felt by men and women equally regardless of model sex. In other words, using nude female or male models in ads made men and women feel equally guilty, but not equally aroused, ashamed, or embarrassed.

Studies 7 and 8 dealt with the main effect proposed in this project, namely that nudity in advertising increases pro-social behaviour. The first study showed an effect on actual behaviour, namely that after evaluating ads with nudity (vs. control ads) participants were

more likely to volunteer for an extra, unpaid task in the experiment. This experiment was important in this project because it demonstrated that the main effect extends to pro-social behaviour, rather than mere intention.

Study 8 demonstrated that guilt for hurting the self, but not for hurting others or society, mediated the relationship between nudity in ads and intention to help a charity. In addition to providing direct evidence for the mediating role of guilt, this study also supported the idea that it was the self-image that was hurt by watching nudity. In other words, participants felt that by watching nudity they had hurt themselves and they felt guilty about that. In order to restore their tarnished self-image, they were more willing to help a local charity. This study directly supports the idea that the moral self was diminished by watching nudity, and that people attempted to restore their moral self by becoming more pro-social. Moreover, it provides evidence against the explanation that seeing another person nude is an interpersonal transgression that would lead to guilt (Baumeister, Stillwell, and Heatherton 1994), as this would have resulted in mediation for guilt after having hurt others.

Study 9 was conducted to show that the main effect disappears when the nudity is made morally acceptable. New stimuli were developed for this study. The stimuli consisted of magazine covers for a lifestyle or art photography magazine and a female model featured on each of the five covers. The idea was that nudity is not immoral in the context of art photography because art is generally more liberal with the concept of nudity and the (female) body. The findings support the idea that the morality of the nudity is what drives the effect on pro-social behaviour.

Study 10 was constructed so that half of the participants were given the chance to repair their moral self after watching nudity in advertising through positive moral self-affirmation, and the other half received further (temporary) damage to their moral self through negative affirmation. It was shown that those that had their moral self reaffirmed did not become more pro-social after seeing nudity. The design of this study was such that mediation of guilt was shown by means of an intervention (moderation) that reduced feelings of guilt before the dependent variable of pro-social behaviour was administered. In other words, this study further demonstrates that the main effect was driven by lowered morality and heightened guilt.

Religiosity was the second moderator tested in this study. Religiosity was included in the study design because prior research had shown that it is associated with issues of morality, guilt, and pro-social behaviour. It was argued that because of these theoretical connections, it was likely that religiosity would have a moderating role if the effect of nudity in ads on pro-

social behaviour was driven by morality and guilt. This was exactly what study 10 demonstrated – the main effect was stronger for those who indicated a higher level of religiosity in their lives.

The final study was arguably the most complicated study of this project by testing the moderating roles of public vs. private viewing context and charity type simultaneously. The two types of charities are short-term oriented and long-term-oriented. The idea behind this study was that morality concerns a higher level of abstraction and therefore when the moral self in activated after viewing nudity, one would only be more inclined to help the long-term (i.e. matching) charity.

The second finding was that (generally) if the ads were seen together with a friend, participants were less likely to be pro-social after seeing nudity. One explanation offered for this effect was that nudity in ads elicits both shame and guilt, but their relative strength depends on the viewing context. In a private context, the dominant emotion is guilt, but in the public context, the dominant emotion becomes shame. As shame is associated with avoidance tendencies, it reduces one's intention to help the charity. This finding also provides evidence against a potential mediation of shame for the main effect.

19.2 Theoretical contributions

The findings reported in this thesis have several major implications for the literature. Each of these will be discussed in the following section.

A first contribution was regarding the measurement of guilt. The GNA scale provides a novel way to distinguish and measure three types of (consumer) guilt. The GNA scale is important theoretically because it shows that guilt can have multiple aspects, and it is important methodologically because it allows for more precise measurement of the construct itself using a validated scale.

A second contribution is that this thesis looks specifically at nudity, and not just at sexual content in advertisements as most previous literature has. The reason for focusing on nudity is due to the context of advertising: sexual content quite easily crosses into the territory of pornography, which is unlikely to occur in any real-life advertising. Mere display of nudity is far more likely to occur in real life advertising and thus studying this construct has more practical value. Moreover, having a narrow definition of nudity allows for more detailed theoretical predictions and less ambiguous manipulations in experiments.

It is very possible that the effect of nudity on guilt is similar to the effect of any form of sexual content in advertising. The basic theory in this project is that because nudity in advertising makes one feel immoral, they become more pro-social. If any other type of sexual content would make one feel as if they are doing something wrong by looking at this sexual content, then it would be the theoretical prediction that guilt is elicited.

Another finding in this research project is that the gender of the model changes the emotions that are experienced. One possibility of these differential effects is that female nudity is far more common than male nudity in most societies. In other words, the effect could be caused by breaking the norm of seeing naked women instead of seeing naked models. This finding thus suggests that male nudity is different from female nudity and that shock may be an important factor when displaying male nudity.

The findings with respect to arousal in this study are in line with previous research (e.g. arousal is only felt when viewing nude models from the opposite sex) but also raise new interesting questions. For instance: is it possible to induce guilt through nudity without a sexual component at all? The present stimuli may have been interpreted as sexual in nature, because the findings demonstrate an effect on arousal. Charities, however, have used nudity in ways other than sexual, such as a ban-fur campaign with nude models or a campaign with exposed chests for breast cancer research. Another example of non-sexual nudity would be ads for a nude beach or a full-nude spa. It would be very interesting and theoretically important to see whether the nudity in these situations would still elicit arousal and guilt, or whether it would elicit other emotions such as shock (charity) or relaxation/fun (beach/spa). If guilt is not elicited in such situations, it suggests that nudity is not always considered immoral – as was the case in this project.

Another contribution is that this thesis demonstrates that the viewing of nudity in advertising leads to feelings of guilt. Although previous literature (e.g. Mosher 1966) had indicated that nudity in the context of pornographic stimuli could elicit guilt, few studies have specifically focused on the moral implications of watching nudity.

Moreover, this thesis distinguishes between three different types of guilt and demonstrates that while nudity elicited all three types, only feeling guilt for hurting the self affected subsequent pro-social behaviour. The finding that these types of guilt have different

attitudinal and behavioural consequences has major implications for all research on guilt, because it suggests that guilt is not a singular emotion. Rather, guilt is a multidimensional construct where each dimension may have different antecedents, processes and downstream consequences. The different dimensions of guilt may be activated by specific contextual circumstances or personality traits.

By using a method developed by Sachdeva, Iliev and Medin (2003), this thesis demonstrated that viewing nudity in ads tarnished the moral self and could be repaired by reaffirming the moral self. This is further evidence for the notion that guilt is a key emotional construct in this process, rather than alternative emotions such as shame, embarrassment, shock or arousal. Using the moral self as theoretical perspective is thus a novel way to distinguish guilt from other emotions, which allows for further clarification of the differences between guilt, shame, embarrassment and other emotions.

The results also support the literature on self-conscious emotions in that guilt, shame, and embarrassment are distinctly different experiences, which has been a point of contention within this literature (e.g. Tangney et al. 1996). Guilt, shame and embarrassment are closely linked theoretically because they are all negative self-conscious emotions.

Theoretically, guilt and shame are very different. One difference between guilt and shame is the focus of attention. People who feel ashamed are focused on themselves because shame is experienced as an attack on the self. When guilty, people tend to focus on those they have hurt through feelings of empathy and are trying to undo the damage done (Leary 2007). A second difference between the two is that shame occurs with respect to a transgression about the entire self and is experienced as self-loathing, whereas guilt concerns one particular action and is experienced more as self-disappointment (Tangney 1992, Tangney et al. 1996). This theoretical difference between guilt and shame is supported by the present study, as watching nudity increases pro-social behaviour. If respondents would have been experiencing shame, they would have decreased pro-social intentions. This study also finds that the effect on pro-social behaviour is eliminated when watching the ad with nudity together with another person. As shame is about relatively permanent character flaws rather than a specific transgression, the context in which the flaw is brought to light (public or private viewing) should not make a difference.

The contribution that this study thus makes to the theoretical distinction between guilt and shame is that it is possible to identify which emotion is experienced by looking at the downstream consequences, particularly the effect of guilt on pro-social behaviour and the removal of the effect of guilt in a public context.

The finding that guilt is not experienced in a public context also hints at a potential moderator: free choice. That is, perhaps respondents felt they freely chose to watch the ad when in private, but felt they had no choice when watching with a friend. The prediction would thus be that if people felt they had no choice, they would feel no guilt and therefore had no reason to behave more moral at a later point in time.

Another interesting – less studied – emotion is embarrassment. Although not previously demonstrated in scientific literature, it would be a natural reaction to feel embarrassed when confronted with a nude person. Leary (2007) described embarrassment as arising when one is afraid that others will draw negative inferences about the individual because of certain events. The particular events that give rise to embarrassment are transgressions of conventions that govern public interactions, although they do not necessarily have to cause harm as is the case with guilt, or fail to meet internal conventions as is the case with shame (Keltner and Buswell 1997). Like with shame, people who felt embarrassed were more likely to focus on themselves because they felt more exposed, although they perceived others' evaluation as less judgmental compared to when ashamed or guilt-ridden, and believed others may have been amused (Tangney et al. 1996).

Embarrassment is not likely to play a large role in the effect of nudity in ads on pro-social behaviour, as people who feel embarrassed were less concerned with ethicality of their actions, were generally less angry with themselves than those who felt guilty or ashamed, were less intent on making amends for the transgression, and did not feel a motivation to hide from others (Tangney et al. 1996).

It would be interesting, however, to further examine the effects of nudity in ads on embarrassment, as this thesis shows that embarrassment is elicited. Tangney and colleagues (1996) mentioned that embarrassment often followed events that were surprising or caused by external causes, making people feel less responsible for the wrongdoing. As such, the effect of nudity on embarrassment may be especially strong in an advertising context, as one does not expect to see nudity, and this surprise strengthens feelings of embarrassment.

Another theoretical avenue is to explore the role of arousal. In this research, it is demonstrated that arousal is different from guilt because arousal is experienced differently depending on gender, whereas guilt is the same irrespective of gender. The arousal central to this research is sexual or perhaps positive arousal, but previous literature (e.g. Russell 1980) has defined arousal in a more neutral way. The implication of this study is that if nudity elicits this neutral form of arousal, this can be morphed into a variety of emotions depending on the valence (positive or negative) of the situation. If someone sees nudity in an ad and becomes aroused, they may interpret this negatively (e.g. feel immoral and thus guilty) but they may also interpret this positively (e.g. become sexually aroused). It is also possible that the arousal does not lead to guilt but rather to shock, anger or disgust when the moral self is not activated. The implication of this reasoning is thus that nudity in ads may elicit a variety of high-arousal emotions other than guilt depending on the circumstances in which the nudity is seen.

19.3 Future research

The research project can be extended in a multitude of ways. The first avenue for exploration is the effect of nudity in advertising on emotions other than guilt. This research demonstrated that nudity elicits a variety of emotions which can be explored further. For example, shame would be very interesting to examine as this was the emotion most often associated with nudity in discussions of this project. Shame has downstream consequences beyond pro-social behaviour that could be affected by nudity.

Two other emotions that were affected by nudity in ads were envy and anger, both of which may also have rich research opportunities. Envy, for instance, is a complex emotion that may occur in this situation when one compares the self to the model featured. This may reduce feelings of self-worth that could affect later consumer behaviour.

Several other emotions that were not included in this research may also be elicited by nudity, such as disgust or even positive emotions like happiness. It would be interesting to explore whether nudity in advertising, which is clearly seen as immoral, could produce positive emotions and behaviours as a consequence of these emotions.

Moreover, the strong variation in emotional reactions suggests that there are many personality-based moderators that moderate the effect of nudity on emotions. A few obvious variables are those directly related to emotions (e.g. the guilt inventory), but other variables like gender, level of education, political orientation, and the Schwarz ten values may provide more interesting theoretical insights.

The variety in emotional reactions also enhances the possibility of mixed emotions. Many of the open-ended reactions in throughout the studies mentioned feeling positive and negative emotional experiences at the same time, such as discomfort and arousal. Nudity in advertising may be an excellent environment in which to study the effects of mixed emotions on later consumer behaviour.

The three types of guilt of the GNA scale provide a second avenue for future research. The concept of guilt is important in a consumption context, yet it is not understood well. Each of the three type of consumer guilt may have distinct antecedents and consequences worth of further research. For example, guilt for hurting others may be more associated with empathy in therefore play a larger role in situations where empathy is typically evoked, such as guilt appeals for charities that feature suffering victims.

A final future research direction is to further explore the different types of pro-social behaviour that exist. The literature on pro-social behaviour has largely focused on exploring the causes of helping behaviour in general and trying to differentiate these specific causes. This research project, together with many others, has shown that effects found may differ depending on the type of pro-social behaviour examined. For example, there is a substantial difference between giving your money versus your time (Liu and Aaker 2008). Likewise, framing of charities as aggressive versus supportive also influences donation intention (Hung and Wyer 2014). Research in academia has only scratched the surface of these effects. The findings specifically suggest that not all types of pro-social behaviour are equally affected by emotions. Although this project showed that guilt can enhance volunteering for extra surveys, intention to be more pro-social in the coming month, and intention to donate to a local charity, it is possible that other types of pro-social behaviour are differentially affected by guilt. For example, pro-social behaviours related to money – like actual monetary donations or dictator games – could show different consequences of guilt. Guilt may make one want to hold onto money because it can be used to restore the self-image, or it may make one want to get rid of their money even more than of their time and effort, because keeping money is seen as greedy. Although this example is mere speculation, it is easy to see the research potential of distinguishing between different types of pro-social behaviour.

19.4 Practical implications

In addition to contributing to academia, this research project also has implications for marketing practices.

Nudity is often used in marketing to either shock viewers into paying attention. Shocking viewers is an effective way to grab attention, although Reichert (2002) discussed studies that showed that nudity actually decreases memory of the brand. The present research suggests that nudity can also be used in reference to morality. Marketers that want to use nudity in their advertising, but want to avoid the shock factor that reduces memory, could attempt to play on people's sense of morality. One example of an actual campaign that cleverly plays into this is the campaign by PETA that stated their models "would rather be nude than wear fur". As nudity is usually considered immoral, the reversal of it becoming a moral statement is a powerful way to convey a point.

The immorality of nudity in advertising may also be used when advertising hedonic products to produce a congruence effect. For example, perfume is a hedonic product that is often advertised as having seductive powers, which can be interpreted as not very moral behaviour. An advertisement that features nudity may be perfect for such as morally dubious product because they are congruent in that aspect. A similar idea would be using nudity for products that are used for various types of cleansing – like hand wash soap or self-help books.

The other side of this is that nudity should definitely not be used in combination with products that are renowned for their morality. The use of nudity would reduce perceptions of morality of these products which should reduce their attractiveness. Obviously, nudity in combination with religion would most likely be off-putting to many parishioners. A less obvious example would be a clothing brand that focuses on more conservative segments of society.

Although this research project has not explored any of these possibilities, nudity and morality are definitely intertwined and a clever interplay of the two – under the right circumstances – could provide a powerful marketing communication.

A second practical implication of this research project is on the end of charities and other altruistic organizations that want to enhance their donations and volunteer numbers. Guilt, especially for hurting the self, was identified as a major antecedent of pro-social behaviour. Charities can use this finding in many different ways. For example, they may play upon one's sense of morality in a donation appeal (through nudity or through other ways), produce feelings of guilt for hurting the self, and see higher levels of altruism. The concept can also

be used to motivate volunteers in the organization, for instance, by making morality a salient concept.

19.5 Conclusion

This research project demonstrated that nudity in advertising causes people to feel guilt, which in turns makes people more motivated. This effect is driven by violation of personal standards for morality. This research contributes in various ways to the literatures on nudity in a marketing context and in general, to the literature on guilt as a discrete emotion, and to the literature on altruism and pro-social behaviour within a consumer context specifically.

APPENDICES

Appendix A: Data Removal Process

This appendix serves to describe the process through which the datasets reported in this thesis were cleaned before the analysis. Every dataset was treated largely the same way to keep consistency in analysis.

The data cleaning items that were used were:

1. Incomplete data (e.g. people who had started the survey but had not completed it);
2. Able to see all the pictures;
3. Whether they indicated that they had participated before. People who clearly specified another study (e.g. I answered questions about donating to charity before) were not excluded;
4. Outlier for time (+/- 3 SD of the mean);
5. Attention check (only included in long studies or those with extensive scales);
   a. The attention check used was "Please select the value 'agree' for this question as an attention check.";
6. Self-reported effort (participants were excluded when they indicated not having put any effort into the study);
7. Outlier on core measured variables (DV, moderators, +/- 3 SD of the mean);

The following tables show which exact cleaning items were used and how many participants were removed based on these criteria.

A1. Data cleaning

Study	Incomplete data	Unable to see all images	Participated before	Outlier time	Attention check	Effort
1A	1	-	0	0	0	0
1B	0	-	0	0	0	0
1C	0	-	0	0	0	0
2	0	-	0	1	3	0
3	79	0	0	8	0	0
4	0	-	0	1	3	0
5	22	4	0	0	3	0
6	3	1	0	10	4	0
7	6	0	10	2	0	4
8	5	0	6	4	0	1
9	27	5	1	5	0	1
10	1	0	9	0	-	0
11	41	0	12	9	-	11

A2. Sample sizes per study before and after cleaning

	Study	Total sample before removal	Total cases removed*	Final sample size
Scale development	1	210	1	209
	1B	13	0	13
	1C	7	0	7
	2	106	3	103
	3	657	87	570
	4	106	3	103
Pro-social Behaviour	5	234	25	209
	6	306	8	298
	7	203	18	185
	8	208	6	202
	9	231	33	198
	10	208	10	198
	11	446	71	375

*Note that one participant can fail multiple criteria and is then counted more than once.

The final sample size plus the total cases removed therefore does not necessarily equal "total before removal".

Appendix B: Demographics

B1. Demographics – Scale development

	1A	1B	1C	2	3	4
Female / Male	199 / 202	9 / 4	3 / 4	47 / 56	240 / 330	47 / 56
Average Age	35.01	25-34	25-34	37.50	36.71	37.50
Straight / gay	357 / 44	-	-	-	-	-
Other / Married	235 / 166	10 / 3	4 / 3	56 / 47	-	56 / 47
Born in USA / foreign	-	-	-	-	501 / 69	-
High school / college or higher	183 / 218	4 / 9	3 / 4	38 / 65	194 / 376	38 / 65
<50,000 / >50,000 USD	230 / 171	6 / 7	4 / 3	45 / 58	262 / 308	45 / 58
Caucasian / Other	304 / 97	10 / 3	5 / 2	78 / 25	319 / 251	78 / 25
Conservative / Moderate / Liberal	-	-	-	28 / 27 / 48	-	28 / 27 / 48

B2. Demographics – Main model

	5	6	7	8	9	10	11
Female / Male	115 / 93	147 / 143	85 / 100	91 / 111	87 / 111	81 / 117	157 / 218
Average Age	33.84	-	36.36	39.18	38.92	38.16	36.11
Straight / gay	178 / 31	258 / 32	-	-	-	-	-
Other / Married	135 / 73	166 / 124	100 / 85	94 / 108	103 / 95	-	225 / 150
High school / college or higher	98 / 111	134 / 156	70 / 115	74 / 128	-	73 / 125	146 / 229
<50,000 / >50,000 USD	140 / 69	165 / 165	90 / 95	110 / 92	103 / 95	98 / 100	192 / 183
Caucasian / Other	163 / 46	224 / 66	152 / 33	168 / 33	158 / 40	156 / 42	-
Conservative / Moderate / Liberal	-	-	46 / 63 / 76	52 / 63 / 87	51 / 52 / 95	50 / 53 / 95	77 / 117 / 181

Appendix C: Stimuli

C1. Stimuli diet pill

Set 1

Instantly Reduce
Excess Body Weight

Instantly Reduce
Excess Body Weight

Set 2

Instantly Reduce
Excess Body Weight

Instantly Reduce
Excess Body Weight

Set 3

Instantly Reduce
Excess Body Weight

Instantly Reduce
Excess Body Weight

C2. Stimuli body lotion

Set 1

Set 2

Set 3

Set 4

C3. Stimuli magazine covers

For this study, we want to understand more about how people look at magazine covers. On the following pages you will see several covers. Please pay attention to the information presented on each page and answer questions that follow.

Lifestyle Magazine is a relatively new magazine featuring items about women's lifestyle, health and beauty. The magazine has had some reasonable success over the last two years, but is looking to improve its cover page.

The magazine has asked us to test a set of new covers to better understand how their readers evaluate magazine covers.

On the following pages, you will see five different covers by Lifestyle Magazine and will be asked to evaluate them. At the end of this study, we will ask you to select your favorite and least favorite cover.

Artwick is a relatively new magazine featuring items about photography, particularly about women. The magazine has had some reasonable success over the last two years, but is looking to improve its cover page.

The magazine has asked us to test a set of new covers to better understand how their readers evaluate magazine covers.

On the following pages, you will see five different covers by Artwick and will be asked to evaluate them. At the end of this study, we will ask you to select your favorite and least favorite cover.
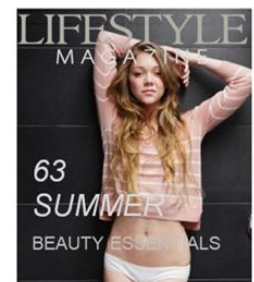
| Set 1 | Set 2 | Set 3 | Set 4 | Set 5 |

Appendix D: Final GNA scale

Please indicate to what extent you agree (1-7) with the following statements.

D1. Guilt for hurting others

1. I feel intense guilt for watching the ad because it may make those around me feel uncomfortable.
2. I feel at fault for watching this ad because I know it would upset someone dear to me.
3. I feel at fault for watching this ad because I feel it is disrespectful to those close to me.
4. I feel at fault for watching this ad because it may make others feel uncomfortable.
5. I feel at fault for watching this ad because it may make those around me feel uncomfortable.
6. I feel mild guilt about watching the ad because I feel it is disrespectful to those close to me.
7. I feel mild guilt about watching the ad because I know it would upset someone dear to me.
8. I feel regret for not looking away from the ad because I know it would upset someone dear to me.

D2. Guilt for hurting society

9. I feel a sense of responsibility that these advertisements exist in our society.
10. I feel that I have done something wrong by looking at this ad because it is plain wrong to have this type of ad in our society.
11. I feel remorse for watching this ad because it perpetuates the existence of this type of ad in our society.
12. I feel at fault for watching this ad because it is plain wrong to have this type of ad in our society.
13. I feel mild guilt about watching the ad because it is disrespectful towards the society I live in.

14. Me viewing this ad is disrespectful towards the society I live in.

D3. Guilt for hurting self

15. I feel at fault for watching this ad because it is degrading to me and what I believe in.
16. I feel like I should be critical of myself for watching the ad.
17. It weighs on my conscience that I have willingly looked at the ad.
18. I feel intense guilt for not looking away from the ad because it violates my personal norms and values.
19. I feel mild guilt about not looking away from the ad because it violates my personal norms and values.
20. I feel mild guilt about watching the ad because it is degrading to me and what I believe in.
21. I feel regret for watching the ad because people like me should not be watching such ads.
22. I feel that I have done something wrong by looking at this ad because it violates my personal norms and values.
23. I feel that I have done something wrong by looking at this ad because it is degrading to me and what I believe in.

Appendix E: CFA

E1. Item loadings in the CFA

			Estimate	S.E.	P
G_Society_1	<---	G_society	1.000		
G_Society_2	<---	G_society	2.476	.291	***
G_Society_3	<---	G_society	2.620	.305	***
G_Society_4	<---	G_society	2.560	.298	***
G_Society_5	<---	G_society	2.765	.321	***
G_Society_6	<---	G_society	2.665	.312	***
G_Self_1	<---	G_self	1.000		
G_Self_2	<---	G_self	1.016	.036	***
G_Self_3	<---	G_self	.957	.034	***
G_Self_4	<---	G_self	.890	.033	***
G_Self_5	<---	G_self	.959	.033	***
G_Self_6	<---	G_self	.970	.035	***
G_Self_7	<---	G_self	.963	.034	***
G_Self_8	<---	G_self	.996	.033	***
G_Self_9	<---	G_self	1.039	.034	***
G_others_1	<---	G_others	1.000		
G_others_2	<---	G_others	1.058	.036	***
G_others_3	<---	G_others	1.089	.036	***
G_others_4	<---	G_others	1.130	.038	***
G_others_5	<---	G_others	1.133	.038	***
G_others_6	<---	G_others	1.138	.038	***
G_others_7	<---	G_others	1.118	.038	***
G_others_8	<---	G_others	1.059	.036	***

E2. Measurement model

E2.1 Unmodified three-factor path model (Amos)
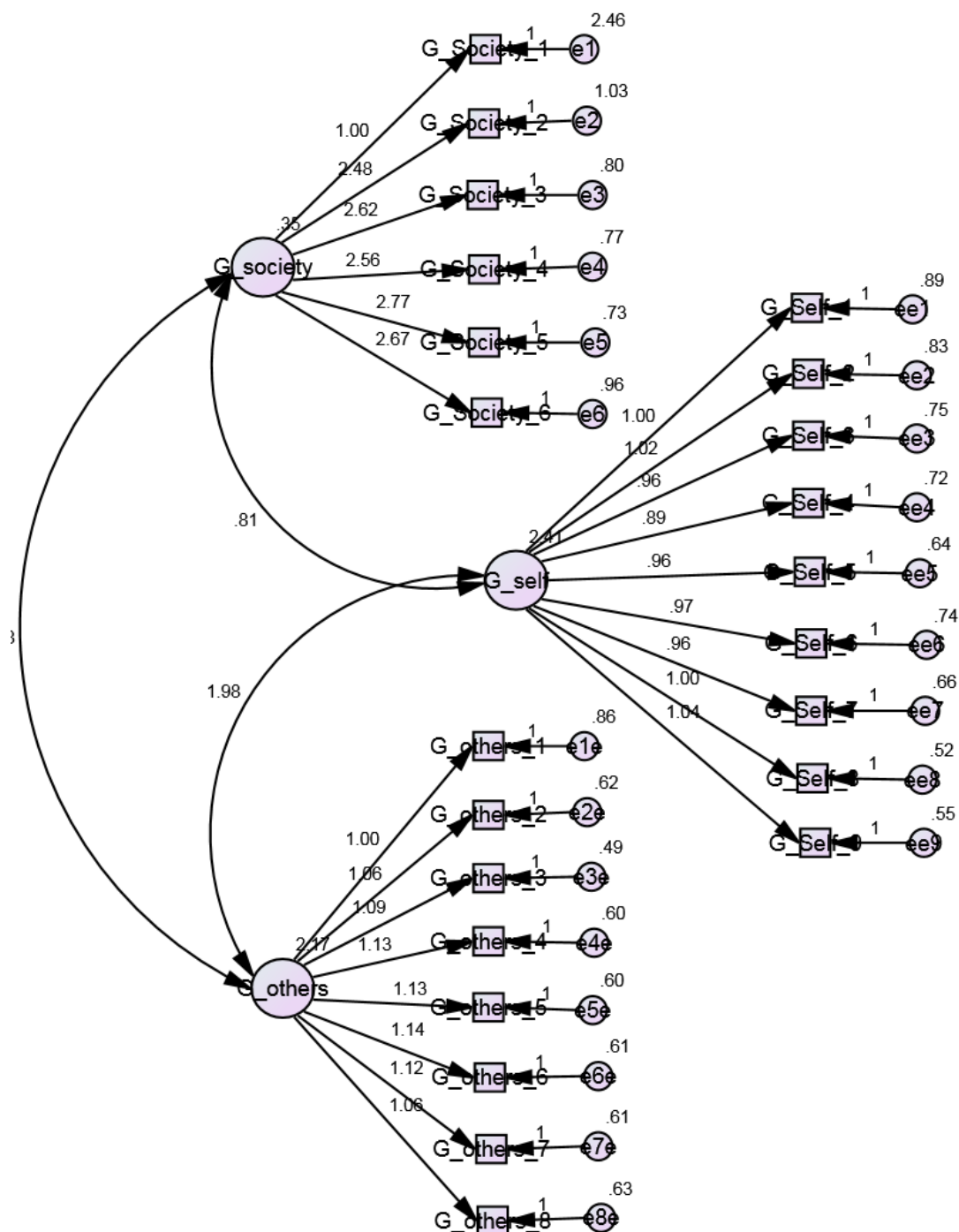
E2.2 Modified three-factor path model (Amos)

The error terms for maximum model fit that were correlated were:

Gsoc1 – gsoc2, Gsoc5 –gsoc6, Gsel1 – gsel2, Gsel3 – gsel4, Gsel4 – gsel5, Gsel4 – gsel7,

Gsel5 – gsel6, Gsel7 – gsel8, Goth2 – goth7, Goth3 – goth5, Goth4 – goth5, Goth6 – goth7,

Goth7 – goth8
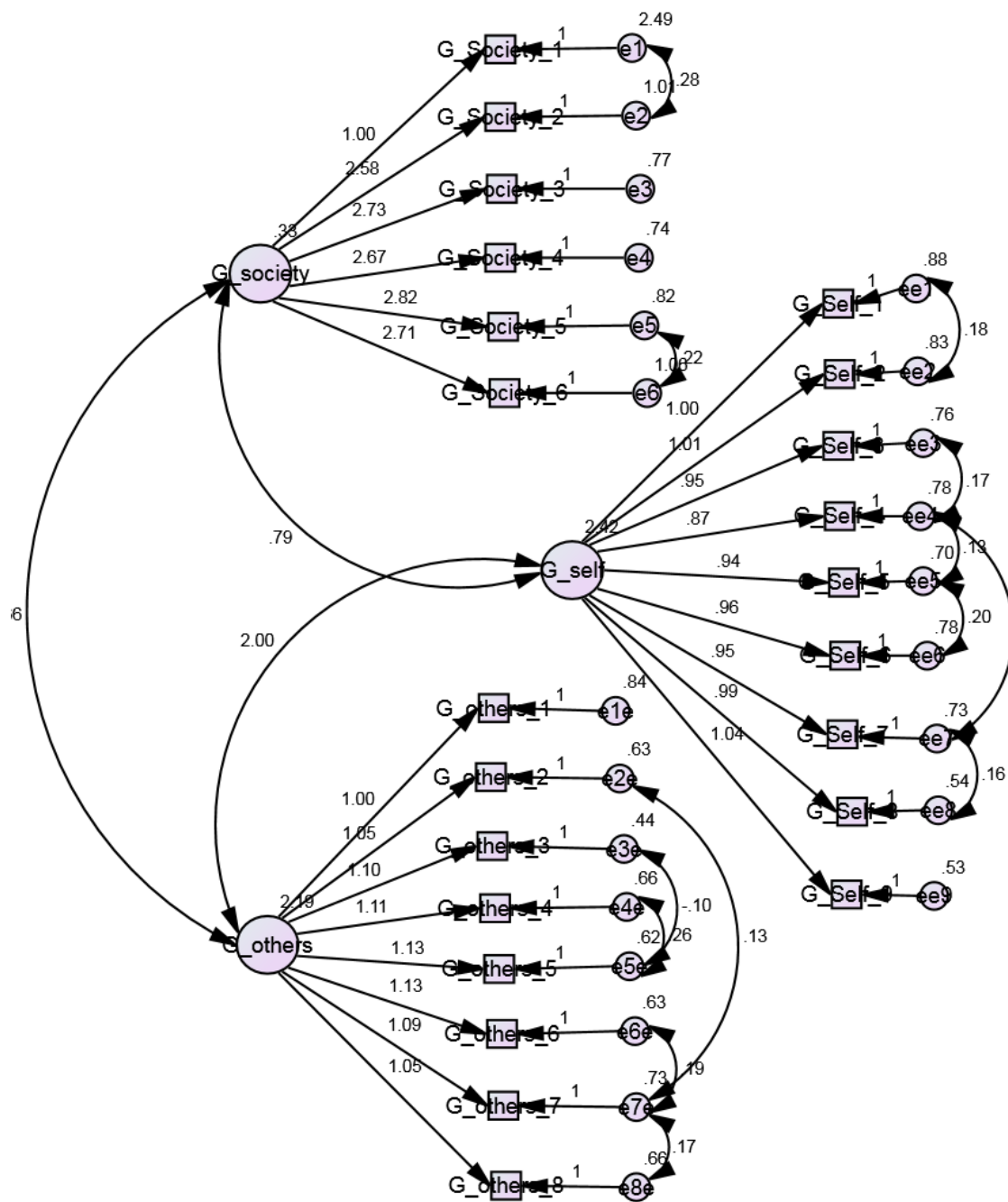
Appendix F: Study manipulations and measures

F1. Volunteer dependent variable

(page 1)

Thank you for completing study 2.

Before you continue to the final study, we would like to ask you for your help with an additional task. This additional task is a pilot test for another project that will take around 5 minutes to complete, and will be administered at the end of this survey.

Please note that this task is totally voluntary and not part of the original survey. Your (lack of) participation will not affect your payment.

Would you like to participate in the voluntary extra task?
1. Yes, I will participate.
2. No, I will not participate.

Thank you for your time and effort. You will be directed to the extra task at the end of this survey.

Please press ">>" to go to the final study.

(page 2)

Pilot test: Fake news

This is the voluntary pre-test that you have agreed to participate in. We thank you again for your time and effort.

The occurrence of 'fake news' during the past election has become a topic of intense research interest. Fake news is news that is not true, but presented as a news article nonetheless.

In this study, we want to test people's ability to recognize fake news. We will ask you to read five short articles and to judge to what extent you believe they are fake news.

Click the ">>" at the bottom to start the task.

F2. Pro-social behaviour dependent variable

In the coming month, how likely is it that you will do the following?

1 very unlikely – 7 very likely

1. Buy locally grown produce.

2. Donate used items/ clothing to a charitable organization to help local families in need.

3. Buy products made from recycled materials, helping to preserve local forest lands.

4. Volunteer your time to a charitable organization benefiting local youth.

1. Refuse to buy a product if it is made using child or sweat shop labor in foreign countries.

2. Buy a product that donates part of its profits to a charitable organization helping refugee families in a foreign country.

3. Donate money to a charitable organization / cause benefiting rainforest conservation in foreign countries.

4. Refuse to buy a product because it was tested on animals abroad.

1. See a foreign film.

2. Attend a local wine or food tasting event.

3. Take a trip out of the country.

4. Eat at a Japanese restaurant.

5. Attend a live music concert.

6. Purchase a movie DVD.

7. Have a professional massage.

F3. Charity donation dependent variable

F2.1 Dependent variable measurement

A Healthier Tomorrow

A Healthier Tomorrow is a private partnership of more than 60 national organizations representing education, health, fitness and nutrition. We address the epidemic of overweight, sedentary, and undernourished children in families of poverty by focusing on changes in schools that support low-income families to improve nutrition and increase physical activity as well as provide nutrition education for both adults and children living in poverty.
We work to engage diverse organizations, leaders, and volunteers in actions that foster sound nutrition and good physical activity in low-income communities. A Healthier Tomorrow envisions a world where children and adults alike, particularly those of low socioeconomic status, are empowered to follow the lifelong habits for health and good nutrition.

Average of charitable behaviors (1 = not at all likely, 9 = extremely likely)

1. Donate money
2. Volunteer time to assist with administrative tasks
3. Volunteer time where your skills best fit with the organization's goals
4. Donate supplies that are relevant for the organization to achieve its goals
5. Sign a petition to increase funding for this organization
6. Spread the word about this organization to others (e.g., share on Facebook, Twitter, etc.; tell family, friends, co-workers, etc.)
7. Ask other people to sign a petition to increase funding for this organization

F2.2 Dependent variable descriptive statistics

	Condition nudity	Mean	Std. Dev	Significant?
Donate money	Control	3.48	1.81	.025
	Nude	4.25	1.58	
Volunteer time to assist with administrative tasks	Control	3.51	2.00	.365
	Nude	3.85	1.80	

Volunteer time where your skills best fit with the organization's goals	Control	3.42	2.06	.324
	Nude	3.80	1.75	
Donate supplies that are relevant for the organization to achieve its goals	Control	3.87	1.97	.017
	Nude	4.72	1.56	
Spread the word about this organization to others	Control	3.70	2.11	.090
	Nude	4.34	1.68	
Ask other people to sign a petition to increase funding for this organization	Control	3.31	1.93	.108
	Nude	3.92	1.84	

F4: Long-term / Urgency charity dependent variable

A Healthier Tomorrow (long-term)

A Healthier Tomorrow is a private partnership of more than 60 national organizations representing education, health, fitness and nutrition. We address the epidemic of overweight, sedentary, and undernourished children in families of poverty by focusing on **changes in schools that support low-income families to improve nutrition** and increase physical activity as well as provide **nutrition education** for both adults and children living in poverty. We work to engage diverse organizations, leaders, and volunteers in actions that **foster sound nutrition and good physical** activity in low-income communities. A Healthier Tomorrow envisions a world where children and adults alike, particularly those of low socioeconomic status, are **empowered to follow the lifelong habits** for health and good nutrition.

A Healthier Today (urgency)

A Healthier Today is a private partnership of more than 60 national organizations representing education, health, fitness and nutrition. We address the epidemic of overweight, sedentary, and undernourished children in families of poverty by **focusing on urgent and immediate changes in schools that support low-income families** to increase physical activity as well as provide **basic nutrition courses** for both adults and children living in poverty.

We work to engage diverse organizations, leaders, and volunteers in **swift actions that improve nutrition and physical** activity in low-income communities. A Healthier Today envisions a world in which **the growing crisis** of obesity in America **is halted and reversed**, **starting today**.

Average of charitable behaviors (1 = not at all likely, 9 = extremely likely)

1. Donate money
2. Volunteer time to assist with administrative tasks
3. Volunteer time where your skills best fit with the organization's goals
4. Donate supplies that are relevant for the organization to achieve its goals

5. Sign a petition to increase funding for this organization

6. Spread the word about this organization to others (e.g., share on Facebook, Twitter, etc.; tell family, friends, co-workers, etc.)

7. Ask other people to sign a petition to increase funding for this organization

F5: Affirmation manipulation

(page 1)

For this study, we want to learn more about how people write about themselves.
On the following pages you will be asked to write a short story about yourself. Do not disclose any identifiable information such as your name, address, phone number, or e-mail.

Please pay attention to the information presented on each page and answer questions that follow.

Click the ">>" at the bottom to go to the next page.

(page 2)

Please copy the following list of six words and think carefully about what each word means to you while doing so.

> Loyal, generous, kind, caring, just, fair
>
> Disloyal, greedy, mean, selfish, unjust, unfair

Write a short story about yourself that includes all the words that you have just copied. It may be easier to write the story if you visualize how each word applies to you.

It is important that you write specifically about yourself, and not about other people.

List of references

Aaker, J., Vohs, K.D. and Mogilner, C. (2010), "Nonprofits are seen as warm and for-profits as competent: Firm stereotypes matter", *Journal of Consumer Research*, 37 (2), pp. 224-37.

Allard, T. and White, K. (2013), "The spillover effects of guilt on subsequent preferences for unrelated self-improvement products", *ACR North American Advances*.

Bartlett, M.Y. and DeSteno, D. (2006), "Gratitude and prosocial behavior: Helping when it costs you", *Psychological Science*, 17 (4), pp. 319-25.

Basil, D.Z., Ridgway, N.M. and Basil, M.D. (2006), "Guilt appeals: The mediating effect of responsibility", *Psychology & Marketing*, 23 (12), pp.1035-54.

Basil, D.Z., Ridgway, N.M. and Basil, M.D. (2008), "Guilt and giving: A process model of empathy and efficacy", *Psychology & Marketing*, 25 (1), pp. 1-23.

Batson, C.D. and Powell, A.A. (2003) "Altruism and prosocial behaviour", *Handbook of psychology*.

Batson, C.D., Duncan, B.D., Ackerman, P., Buckley, T. and Birch, K. (1981), "Is empathic emotion a source of altruistic motivation?" *Journal of Personality and Social Psychology*, 40 (2), p. 290.

Baumeister, R.F., Stillwell, A.M. and Heatherton, T.F. (1994), "Guilt: an interpersonal approach", *Psychological Bulletin*, 115 (2), p.243.

Belch, M.A., Holgerson, B.E., Belch, G.E. and Koppman, J. (1982), "Psychophysiological and cognitive responses to sex in advertising", *ACR North American Advances*.

Berman, J.Z., Levine, E.E., Barasch, A. and Small, D.A. (2015), "The braggart's dilemma: On the social rewards and penalties of advertising prosocial behaviour", *Journal of Marketing Research*, 52 (1), pp. 90-104.

Birmingham, E. and A. Kingstone (2009), "Human Social Attention", *The Year in Cognitive Neuroscience*, 1156, 118-40.

Brown, M., Amoroso, D.M. and Ware, E.E. (1976), "Behavioral effects of viewing pornography", *The Journal of Social Psychology*, 98 (2), pp. 235-245.

Business Insider (2012), "This heatmap proves that looks are the most important thing on your LinkedIn profile", accessed <http://www.businessinsider.com/should-you-include-a-picture-on-your-linkedin-profile-2012-5>

Business Insider (2017), "TV is still the biggest media platform - but the internet is rapidly gaining ground," accessed < https://www.businessinsider.nl/tv-vs-internet-media-consumption-average-chart-2017-6/?international=true&r=US>

Caprara, G.V., Barbaranelli, C., Pastorelli, C., Cermak, I. and Rosza, S. (2001), "Facing guilt: Role of negative affectivity, need for reparation, and fear of punishment in leading to prosocial behaviour and aggression", *European Journal of Personality*, 15 (3), pp. 219-37.

Carlson, M., Charlin, V. and Miller, N. (1988), "Positive mood and helping behavior: a test of six hypotheses", *Journal of Personality and Social Psychology*, 55 (2), pp. 211-29.

Carrigan, M. and Szmigin, I. (2006), "Mothers of invention: Maternal empowerment and convenience consumption", *European Journal of Marketing*, 40 (9), pp. 1122-42.

Cavanaugh, L.A., Bettman, J.R. and Luce, M.F. (2015), "Feeling love and doing more for distant others: Specific positive emotions differentially affect prosocial consumption," American Marketing Association.

Cialdini, R.B., Darby, B.L. and Vincent, J.E. (1973), "Transgression and altruism: A case for hedonism", *Journal of Experimental Social Psychology*, 9 (6), pp. 502-16.

Cohen, T.R., Wolf, S.T., Panter, A.T. and Insko, C.A. (2011), "Introducing the GASP scale: a new measure of guilt and shame proneness", *Journal of Personality and Social Psychology*, 100 (5), pp. 947.

Cole, L. and Sherrell, D. (1995), "Comparing scales to measure compulsive buying: An exploration of their dimensionality", *ACR North American Advances*.

Cryder, C.E., Springer, S. and Morewedge, C.K. (2012), "Guilty feelings, targeted actions", *Personality and Social Psychology Bulletin*, 38 (5), pp. 607-18.

Dahl, D.W., Honea, H. and Manchanda, R.V. (2003), "The nature of self-reported guilt in consumption contexts", *Marketing Letters*, 14 (3), pp.159-71.

Dahl, D.W., Sengupta, J. and Vohs, K.D. (2009), "Sex in advertising: Gender differences and the role of relationship commitment", *Journal of Consumer Research*, 36 (2), pp. 215-31.

Davis, M.H., Mitchell, K.V., Hall, J.A., Lothert, J., Snapp, T. and Meyer, M. (1999), "Empathy, expectations, and situational preferences: Personality influences on the decision to participate in volunteer helping behaviours", *Journal of Personality*, 67 (3), pp. 469-503.

De Hooge, I.E., Nelissen, R., Breugelmans, S.M. and Zeelenberg, M. (2011), "What is moral about guilt? Acting "prosocially" at the disadvantage of others," *Journal of Personality and Social Psychology*, 100 (3), pp. 462.

Demaria, T. and Kassinove, H. (1988), "Predicting guilt from irrational beliefs, religious affiliation and religiosity", *Journal of Rational Emotive and Cognitive Behavior Therapy*, 6 (4), pp. 259-72.

Duhachek, A., Agrawal, N. and Han, D. (2012), "Guilt versus shame: coping, fluency, and framing in the effectiveness of responsible drinking messages", *Journal of Marketing Research*, 49 (6), pp. 928-41.

Dunning, D. (2007), "Self-image motives and consumer behavior: How sacrosanct self-beliefs sway preferences in the marketplace", *Journal of Consumer Psychology*, 17 (4), pp. 237-49.

Eisenberg, N. (2000), "Emotion, regulation, and moral development", *Annual Review of Psychology*, 51 (1), pp. 665-97.

Eisenberg, N., McCreath, H. and Ahn, R. (1988), "Vicarious emotional responsiveness and prosocial behavior: Their interrelations in young children", *Personality and Social Psychology Bulletin*, 14 (2), pp. 298-311.

Else-Quest, N.M., Higgins, A., Allison, C. and Morton, L.C. (2012), "Gender differences in self-conscious emotional experience: a meta-analysis", *Psychological Bulletin*, 138 (5), pp. 947-81.

Estrada-Hollenbeck, M. and Heatherton, T.F. (1997), "Avoiding and alleviating guilt through prosocial behaviour", *Guilt and Children*, pp. 215.

Eyal, Tal, and Nira Liberman (2012), "Morality and psychological distance: A construal level theory perspective." *The social psychology of morality: Exploring the causes of good and evil,* pp. 185-202

EyeQuant (2014), "The 3 most surprising insights from a 200 website eye-tracking study", accessed <http://www.eyequant.com/blog/2014/01/15/the-3-most-surprising-insights-from-a-200-website-eye-tracking-study>

Genevsky, A., Västfjäll, D., Slovic, P. and Knutson, B. (2013), "Neural underpinnings of the identifiable victim effect: Affect shifts preferences for giving*", Journal of Neuroscience*, 33 (43), pp. 17188-96.

Gerrard, M. (1980), "Sex guilt and attitudes toward sex in sexually active and inactive female college students", *Journal of Personality Assessment*, 44 (3), pp. 258-61.

Ghingold, M. and Bozinoff, L (1982), "Construct Validation and Empirical Testing of Guilt Arousing Marketing Communications", *NA - Advances in Consumer Research Volume 09*, eds. Andrew Mitchell, Ann Abor, MI : Association for Consumer Research, pp 210-214.

Giner-Sorolla, R. (2001), "Guilty pleasures and grim necessities: affective attitudes in dilemmas of self-control", *Journal of Personality and Social Psychology*, 80 (2), pp. 206.

Gorsuch, R.L. and McPherson, S.E. (1989), "Intrinsic/extrinsic measurement: I/E-revised and single-item scales", *Journal for the Scientific Study of Religion*, pp. 348-354.

Graziano, W.G., Habashi, M.M., Sheese, B.E. and Tobin, R.M. (2007), "Agreeableness, empathy, and helping: a person × situation perspective", *Journal of Personality and Social Psychology*, 93 (4), p. 583.

Griskevicius, V., Tybur, J.M. and Van den Bergh, B. (2010), "Going green to be seen: status, reputation, and conspicuous conservation", *Journal of Personality and Social Ppsychology*, 98 (3), p. 392.

Han, D., Duhachek, A. and Agrawal, N. (2014), "Emotions shape decisions through construal level: The case of guilt and shame", *Journal of Consumer Research*, 41 (4), pp. 1047-64.

Han, D., Lalwani, A.K. and Duhachek, A. (2017), "Power distance belief, power, and charitable giving", *Journal of Consumer Research*, 44 (1), pp. 182-95.

Harder, D.H. and Zalma, A. (1990), "Two promising shame and guilt scales: A construct validity comparison", *Journal of Personality Assessment*, 55 (3), pp. 729-45.

Harder, D.W. and Lewis, S.J. (1987), "The assessment of shame and guilt', *Advances in Personality Assessment*, 6, pp. 89-114.

Hinkin, T.R. (1998), "A brief tutorial on the development of measures for use in survey questionnaires", *Organizational Research Methods*, 1 (1), pp. 104-21.

Hinkin, T.R., Tracey, J.B. and Enz, C.A. (1997), "Scale construction: Developing reliable and valid measurement instruments", *Journal of Hospitality & Tourism Research*, 21 (1), pp. 100-20.

Hoblitzelle, W. (1982), "Developing a measure of shame and guilt and the role of shame in depression", *Unpublished predissertation*, Yale University, New Haven, CT.

Huhmann, B.A. and Brotherton, T.P. (1997), "A content analysis of guilt appeals in popular magazine advertisements", *Journal of Advertising*, 26 (2), pp. 35-45.

Hung, I.W. and Wyer Jr, R.S. (2014), "Effects of self-relevant perspective-taking on the impact of persuasive appeals", *Personality and Social Psychology Bulletin*, 40 (3), pp. 402-14.

Independent (2012), "Sex sells so charities should use it to their advantage," accessed <https://www.independent.co.uk/voices/comment/sex-sells-so-charities-should-use-it-to-their-advantage-8145096.html>

Isen, A.M., Shalker, T.E., Clark, M. and Karp, L. (1978), "Affect, accessibility of material in memory, and behavior: A cognitive loop?", *Journal of Personality and Social Psychology*, 36 (1), p.1.

Janda, L.H. and Bazemore, S.D. (2011), "The revised Mosher sex-guilt scale: Its psychometric properties and a proposed ten-item version", *Journal of Sex Research*, 48 (4), pp. 392-6.

Jonas, E., Schimel, J., Greenberg, J. and Pyszczynski, T. (2002), "The Scrooge effect: Evidence that mortality salience increases prosocial attitudes and behaviour", *Personality and Social Psychology Bulletin,* 28 (10), pp. 1342-53.

Jones, W.H., Schratter, A.K. and Kugler, K. (2000), "The guilt inventory", *Psychological Reports*, 87 (3), pp. 1039-42.

Keltner, D. and Buswell, B.N. (1997), "Embarrassment: its distinct form and appeasement functions", *Psychological Bulletin*, 122 (3), p. 250.

Kenny, D.A., Kaniskan, B. and McCoach, D.B. (2015), "The performance of RMSEA in models with small degrees of freedom', *Sociological Methods & Research*, 44 (3), pp. 486-507.

Khan, U. and Dhar, R. (2006), "Licensing effect in consumer choice", *Journal of marketing research*, 43 (2), pp. 259-266.

Kim, J.O. and Mueller, C.W. (1978), "Factor analysis: Statistical methods and practical issues", Vol. 14, Sage.

Kivetz, R. and Simonson, I. (2002), "Earning the right to indulge: Effort as a determinant of customer preferences toward frequency program rewards", *Journal of Marketing Research*, 39 (2), pp. 155-70.

Kugler, K. and Jones, W.H. (1992), "On conceptualizing and assessing guilt", *Journal of Personality and Social Psychology*, 62 (2), p.318.

Lamm, C., Batson, C.D. and Decety, J. (2007), "The neural substrate of human empathy: effects of perspective-taking and cognitive appraisal", *Journal of Cognitive Neuroscience*, 19 (1), pp. 42-58.

LaTour, M.S. and Henthorne, T.L. (1994), "Ethical judgments of sexual appeals in print advertising", *Journal of Advertising*, 23 (3), pp. 81-90.

LaTour, M.S. (1990), "Female nudity in print advertising: An analysis of gender differences in arousal and ad response", *Psychology & Marketing*, 7 (1), pp. 65-81.

LaTour, M.S., Pitts, R.E. and Snook-Luther, D.C. (1990), "Female nudity, arousal, and ad response: An experimental investigation", *Journal of Advertising*, 19 (4), pp. 51-62.

Lascu, Dana-Nicoleta (1991), "Consumer Guilt: Examining the Potential of a New Marketing Construct", *NA - Advances in Consumer Research Volume 18*, eds. Rebecca H. Holman and Michael R. Solomon, Provo, UT : Association for Consumer Research, pp: 290-295.

Leach, C.W. and Cidam, A. (2015), "When is shame linked to constructive approach orientation? A meta-analysis", *The Journal of Personality and Social Psychology*, 109 (6), pp 983-1002.

Leary, M.R. (2007), "Motivational and emotional aspects of the self", *Annual Review of Psychology*, 58, pp. 317-44.

Lee, S., Winterich, K.P. and Ross Jr, W.T. (2014), "I'm moral, but I won't help you: The distinct roles of empathy and justice in donations", *Journal of Consumer Research*, 41 (3), pp. 678-96.

Leith, K.P. and Baumeister, R.F. (1998), "Empathy, shame, guilt, and narratives of interpersonal conflicts: guilt-prone people are better at perspective taking" *Journal of Personality*, 66 (1), pp. 1-37.

Lerner, M.J. (1980), "The belief in a just world", *The Belief in a Just World*, pp. 9-30, Springer US.

Liberman, N. and Trope, Y. (1998), "The role of feasibility and desirability considerations in near and distant future decisions: A test of temporal construal theory", *Journal of personality and social psychology*, 75 (1), pp.5.

Liu, W. and Aaker, J. (2008), "The happiness of giving: The time-ask effect', *Journal of Consumer Research*, 35 (3), pp. 543-57.

Love, R.E., Sloan, L.R. and Schmidt, M.J. (1976), "Viewing pornography and sex guilt: The priggish, the prudent, and the profligate", *Journal of Consulting and Clinical Psychology*, 44 (4), p. 624.

Lull, R.B. and Bushman, B.J. (2015), "Do sex and violence sell? A meta-analytic review of the effects of sexual and violent media and ad content on memory, attitudes, and buying intentions", *Psychological Bulletin*, 141 (5), p. 1022.

MacCallum, R.C., Browne, M.W. and Sugawara, H.M. (1996), "Power analysis and determination of sample size for covariance structure modelling", *Psychological Methods*, 1 (2), p. 130.

Malti, T., Gummerum, M., Keller, M. and Buchmann, M. (2009), "Children's moral motivation, sympathy, and prosocial behaviour", *Child Development*, 80 (2), pp. 442-460.

Marschall, D., Sanftner, J. and Tangney, J.P. (1994), "The state shame and guilt scale", Fairfax, VA: George Mason University.

Matsunaga, M. (2011), "How to Factor-Analyze Your Data Right: Do's, Don'ts, and How-To's", *International Journal of Psychological Research*, 3 (1).

Mauss, I.B. and Robinson, M.D. (2009), "Measures of emotion: A review", *Cognition and Emotion*, 23 (2), pp. 209-37.

McKay, R., Herold, J. and Whitehouse, H. (2013), "Catholic guilt? Recall of confession promotes prosocial behaviour", *Religion, Brain & Behavior*, 3 (3), pp. 201-9.

Miller, D.T. (1977), "Altruism and threat to a belief in a just world", *Journal of Experimental Social Psychology*, 13 (2), pp. 113-24.

Montada, L. and Bierhoff, H.W. (1991), "Altruism in social systems", Hogrefe & Huber Pub.

Montada, L., Schmitt, M. and Dalbert, C. (1986), "Thinking about justice and dealing with one's own privileges", *Justice in Social Relations*, Springer US.

Mosher, D.L. and Abramson, P.R. (1977), "Subjective sexual arousal to films of masturbation", *Journal of Consulting and Clinical Psychology*, 45 (5), p.796.

Mosher, D.L. (1961), "The development and validation of a sentence completion measure of guilt", *unpublished dissertation*, The Ohio State University.

Mosher, D.L. (1966), "The development and multitrait-multimethod matrix analysis of three measures of three aspects of guilt", *Journal of Consulting Psychology*, 30 (1), p.25.

Mosher, D.L. (1998), "Revised Mosher guilt inventory", *Handbook of Sexuality-Related Measures*, pp. 290-293.

Mukhopadhyay, A., and Johar, G. V. (2007), "Tempted or not? The effect of recent purchase history on responses to affective advertising", *Journal of Consumer Research*, 33, pp. 445−453.

Mukhopadhyay, A. and Johar, G.V. (2009), "Indulgence as self-reward for prior shopping restraint: A justification-based mechanism", *Journal of Consumer Psychology*, 19 (3), pp. 334-345.

NCCS (2012), "Quick facts about nonprofits", accessed <http://nccs.urban.org/data-statistics/quick-facts-about-nonprofits>

Niedenthal, P.M., Tangney, J.P. and Gavanski, I., (1994), "If only I weren't versus If only I hadn't: Distinguishing shame and guilt in conterfactual thinking", *Journal of Personality and Social Psychology*, 67 (4), pp. 585.

O'Connor, L.E., Berry, J.W., Weiss, J., Bush, M. and Sampson, H. (1997), "Interpersonal guilt: The development of a new measure", *Journal of Clinical Psychology*, 53 (1), pp. 73-89.

Peloza, J., White, K. and Shang, J. (2013), "Good and guilt-free: The role of self-accountability in influencing preferences for products with ethical attributes", *Journal of Marketing*, 77 (1), pp. 104-19.

Penner, L.A., Dovidio, J.F., Piliavin, J.A. and Schroeder, D.A. (2005), "Prosocial behavior: Multilevel perspectives", *Annual Review of Psychology*, 56, pp. 365-92.

Penner, L.A., Fritzsche, B.A., Craiger, J.P. and Freifeld, T.R. (1995), "Measuring the prosocial personality", *Advances in Personality Assessment*, 10, pp. 147-63.

Piff, P.K., Dietze, P., Feinberg, M., Stancato, D.M. and Keltner, D. (2015), "Awe, the small self, and prosocial behaviour", *Journal of Personality and Social Psychology*, 108 (6), pp. 883.

Preston, S.D. and De Waal, F.B. (2002), "Empathy: Its ultimate and proximate bases", *Behavioral and Brain Sciences*, 25 (1), pp. 1-20.

Ray, R.E. and Walker, E. (1973), "Biographical and self-report correlates of female guilt responses to visual erotic stimuli", *Journal of Consulting and Clinical Psychology*, 41 (1), pp. 93.

Regan, J.W. (1971), "Guilt, perceived injustice, and altruistic behaviour", *Journal of Personality and Social Psychology*, 18 (1), pp. 124.

Reichert, T. (2002), "Sex in advertising research: A review of content, effects, and functions of sexual information in consumer advertising", *Annual Review of Sex Research*, 13 (1), pp. 241-73.

Reichert, T. (2003), "The prevalence of sexual imagery in ads targeted to young adults", *Journal of Consumer Affairs*, 37 (2), pp. 403-12.

Reichert, T., Heckler, S.E. and Jackson, S. (2001), "The effects of sexual social marketing appeals on cognitive processing and persuasion", *Journal of Advertising*, 30 (1), pp. 13-27.

Reykowski, J. (1982), "Motivation of prosocial behaviour", *Cooperation and helping behavior: Theories and research*, pp. 352-75.

Richins, M.L. (1997), "Measuring emotions in the consumption experience", *Journal of Consumer Research*, 24 (2), pp. 127-46.

Roseman, I.J. (1991), "Appraisal determinants of discrete emotions", *Cognition & Emotion*, 5 (3), pp. 161-200.

Roseman, I.J. (1996), "Appraisal determinants of emotions: Constructing a more accurate and comprehensive theory", *Cognition & Emotion*, 10 (3), pp. 241-278.

Rosenberg, M. (1965), "Rosenberg self-esteem scale (RSE). Acceptance and commitment therapy", *Measures Package*, 61, pp. 52.

Russell, J. A. (1980), "A circumplex model of affect", *Journal of Personality and Social Psychology*, 39, pp. 1161-78.

Sachdeva, S., Iliev, R. and Medin, D.L. (2009), "Sinning saints and saintly sinners: The paradox of moral self-regulation", *Psychological Science*, 20 (4), pp. 523-8.

Salovey, P. and Rosenhan, D.L. (1989), "Mood states and prosocial behaviour", Handbook of Social Psychophysiology, pp. 371-91.

Schill, T. and Chapin, J. (1972), "Sex guilt and males' preference for reading erotic magazines", *Journal of Consulting and Clinical Psychology*, 39 (3), pp. 516.

Schwartz, S. (1972), "Effects of arousal on appreciation for varying degrees of sex-relevant humor", *Journal of Experimental Research in Personality*, 6 (2), pp. 241-47.

Schwartz, S.H. (2012), "An overview of the Schwartz theory of basic values", *Online Readings in Psychology and Culture*, 2 (1), pp.11.

Sengupta, Jaideep and Darren W. Dahl (2008), "Gender-Related Reactions to Gratuitous Sex Appeals in Advertising", *Journal of Consumer Psychology*, 18 (1), pp. 62–78.

Shariff, A.F. and Norenzayan, A. (2007), "God is watching you: Priming God concepts increases prosocial behavior in an anonymous economic game", *Psychological Science*, 18 (9), pp. 803-9.

Sherrow, Victoria (2001), "For Appearance' Sake: The Historical Encyclopedia of Good Looks, Beauty, and Grooming", *Greenwood Publishing Group*, pp. 5.

Simpson, P.M., Horton, S. and Brown, G. (1996), "Male nudity in advertisements: A modified replication and extension of gender and product effects", *Journal of the Academy of Marketing Science*, 24 (3), pp. 257-62.

Small, D.A. and Simonsohn, U. (2007), "Friends of victims: Personal experience and prosocial behaviour", *Journal of Consumer Research*, 35 (3), pp. 532-42.

Smetana, J.G. and Killen, M. (2008), "Moral cognition, emotions, and neuroscience: An integrative developmental view", *International Journal of Developmental Science*, 2 (3), pp. 324-39.

Smith, C.A. and Ellsworth, P.C. (1985), "Patterns of cognitive appraisal in emotion", *Journal of Personality and Social Psychology*, 48 (4), pp. 813.

Soman, D. and Cheema, A. (2011), "Earmarking and partitioning: increasing saving by low-income households", *Journal of Marketing Research*, 48 (SPL), pp. 14-22.

Tangney, J.P. (1991), "Moral affect: the good, the bad, and the ugly", *Journal of Personality and Social Psychology*, 61 (4), pp. 598.

Tangney, J.P. (1992), "Situational determinants of shame and guilt in young adulthood", *Personality and Social Psychology Bulletin*, 18 (2), pp. 199-206.

Tangney, J.P. (1996)", Conceptual and methodological issues in the assessment of shame and guilt", *Behaviour Research and Therapy*, 34 (9), pp. 741-54.

Tangney, J.P., Burggraf, S.A., Hamme, H. and Domingos, B. (1988), "The self-conscious affect and attribution inventory (SCAAI)". Bryn Mawr, PA: Bryn Mawr.

Tangney, J.P., Miller, R.S., Flicker, L. and Barlow, D.H. (1996), "Are shame, guilt, and embarrassment distinct emotions?" *Journal of Personality and Social Psychology*, 70 (6), pp. 1256.

Tangney, J.P., Wagner, P., Fletcher, C. and Gramzow, R. (1992), "Shamed into anger? The relation of shame and guilt to anger and self-reported aggression", *Journal of Personality and Social Psychology*, 62 (4), p. 669.

The Wall Street Journal (2002), "Abercrombie & Sex," accessed <https://www.wsj.com/articles/SB1019697100363939240>

Tian, K.T., Bearden, W.O. and Hunter, G.L. (2001), "Consumers' need for uniqueness: Scale development and validation", *Journal of Consumer Research*, 28 (1), pp. 50-66.

Twenge, J.M., Baumeister, R.F., DeWall, C.N., Ciarocco, N.J. and Bartels, J.M. (2007), "Social exclusion decreases prosocial behaviour", *Journal of Personality and Social Psychology*, 92 (1), pp. 56.

Watson, D., Clark, L.A. and Tellegen, A. (1988), "Development and validation of brief measures of positive and negative affect: the PANAS scales", *Journal of Personality and Social Psychology*, 54 (6), pp. 1063.

Wegener, D.T. and Petty, R.E. (1994), "Mood management across affective states: the hedonic contingency hypothesis", *Journal of Personality and Social Psychology*, 66 (6), pp. 1034.

Weiner, B., Graham, S. and Chandler, C. (1982), "Pity, anger, and guilt: An attributional analysis", *Personality and Social Psychology Bulletin*, 8 (2), pp. 226-32.

Weiss, J., Sampson, H, and O'Connor L. (1995), "How Psychotherapy Works: The Findings of the San Francisco Psychotherapy Research Group", *Bulletin of the Psychoanalytic Research Society*, 6 (1).

White, K., MacDonnell, R. & Dahl, D. W. (2011), "It's the Mind-Set That Matters: The Role of Construal Level and Message Framing in Influencing Consumer Efficacy and Conservation Behaviors", *Journal of Marketing Research*, 48 (3), pp. 472-485

White, K. and Peloza, J. (2009), "Self-benefit versus other-benefit marketing appeals: Their effectiveness in generating charitable support", *Journal of Marketing*, 73 (4), pp. 109-124.

Winterich, K.P. and Zhang, Y. (2014), "Accepting inequality deters responsibility: How power distance decreases charitable behaviour", *Journal of Consumer Research*, 41 (2), pp. 274-93.

Winterich, K.P., Mittal, V. and Aquino, K. (2013), "When does recognition increase charitable behavior? Toward a moral identity-based model", *Journal of Marketing*, 77 (3), pp. 121-34.

Yi, S. and Baumgartner, H. (2011), "Coping with guilt and shame in the impulse buying context", *Journal of Economic Psychology*, 32 (3), pp. 458-67.

Zhong, C.B. and Liljenquist, K. (2006), "Washing away your sins: Threatened morality and physical cleansing", *Science*, 313 (5792), pp. 1451-2.

Zhou, Q., Eisenberg, N., Losoya, S.H., Fabes, R.A., Reiser, M., Guthrie, I.K., Murphy, B.C., Cumberland, A.J. and Shepard, S.A. (2002), "The relations of parental warmth and positive expressiveness to children's empathy-related responding and social functioning: A longitudinal study", *Child Development*, 73 (3), pp. 893-915.