



Nottingham University
Business School

Sexual Imagery in Advertising: Issues in Consumer Motivational Processes

Anastasios Pagiasslis, BSc, MSc.

***Thesis submitted to The University of
Nottingham for the degree of Doctor of
Philosophy***

August 2015

This page is intentionally left blank

ABSTRACT

Grounded in Self Determination Theory (Deci and Ryan 1985a; 2000), the purpose of this thesis is to investigate the unintentional and pernicious effects of sexual imagery in advertising on life aspirations, situational motivation for consumption, satisfaction with basic needs, state self-esteem and body image (dis)satisfaction while accounting for the mediating effects of the individual differences variables: contingent self-esteem, general causality orientations and sexual liberalism. Results from two laboratory experiments test the hypotheses. Data were collected via a series of quasi-experiments utilizing a 2 x 4 full factorial design; gender served as a 2-level quasi-experimental variable and nudity as a 3-level experimental variable (nude, semi-nude, clothed) with a product-only condition as the control condition. The experimental stimuli comprised 16 advertisements utilizing products relevant to sexual imagery (Vodka, Whiskey, Wrist watches, Jeans and Perfumes). Before exposure to the experimental stimuli, participants were asked to complete the individual differences questionnaires, and after exposure to the experimental stimuli, participants were asked to complete the questionnaire comprising the outcome variables and basic demographic information. The results provide counterintuitive information about the function of sexual imagery across increasing levels of nudity and across genders. The original hypotheses about the directionality of effects hold only partially. Individuals exhibit mixed results regarding the effects in aspirations (study 1 and study 2), the situational motivation for consumption is not found to differ across conditions (study 1 and 2), state self-esteem and body image (dis)satisfaction show indications compensatory mechanisms but only for study 1. In study 2 sexual imagery impacts the satisfaction with basic needs. Females are more pre-occupied with image, meaningful relationships and health (study 1 and study 2) while men are more preoccupied with fame (study 1). Females also exhibit lower state self-esteem (study 1) and lower body satisfaction (study 1). Taken together the results indicate that the negative effects of sexual imagery can be offset by conscious image processing, autonomous self-determination and other defensive strategies. Finally, differences between advertising conditions of nudity may be susceptible to arousal and mating profile effects.

This page is intentionally left blank

To my Parents and my Sister: Panos, Athina and Lena.

To my Supervisor Professor Andrew Smith.

To my Friends who stood by and stayed close.

This page is intentionally left blank

CONTENTS

ABSTRACT	3
PREFACE	13
CHAPTER 1	15
1. INTRODUCTION	15
1.1. UNINTENTIONAL CONSEQUENCES OF ADVERTISING.....	15
1.2. WHY RESEARCH SEXUAL APPEALS?	17
CHAPTER 2	20
2. LITERATURE REVIEW	20
2.1. SEXUAL APPEALS IN ADVERTISING	20
2.1.1. Defining Sexual Appeals in Advertising	21
2.1.2. Marketing Effects of Sexual Appeals in Advertising.....	23
2.2. SEXUAL STIMULI AND HUMAN BEHAVIOUR / DECISION MAKING.....	25
2.3. EFFECTS OF BEAUTY IDEALS IN ADVERTISING ON INDIVIDUALS	27
CHAPTER 3	29
3. SELF-DETERMINATION THEORY (SDT)	29
3.1. THEORETICAL OVERVIEW.....	29
3.2. SELF-DETERMINATION THEORY IN MARKETING RESEARCH.....	34
3.3. SELF-DETERMINATION THEORY AND SEXUAL IMAGERY RELATED RESEARCH	37
3.4. A CRITIQUE OF SELF-DETERMINATION THEORY.....	38
CHAPTER 4	43
4. BRIDGING THEORY AND RESEARCH	43
4.1. OVERVIEW OF THE PRESENT STUDIES.....	43
4.2. GAPS AND QUESTIONS.....	43
4.3. OBJECTIVES AND HYPOTHESES	45
CHAPTER 5	46
5. EPISTEMOLOGICAL CONSIDERATIONS	46
5.1. EXPERIMENTS IN SOCIAL SCIENCES.....	46
5.2. MEASURING PSYCHOLOGICAL CONSTRUCTS	48
CHAPTER 6	51

6. STUDY 1: UK SAMPLE	51
6.1. METHOD	51
6.1.1. Design	51
6.1.2. Participants.....	51
6.1.3. Experimental Stimuli.....	53
6.1.4. Procedure	55
6.2. PILOT STUDY	57
6.3. CONSTRUCTS AND MEASURES.....	58
6.4. INDIVIDUAL DIFFERENCES AND COVARIATE VARIABLES	59
6.4.1. Mood	59
6.4.2. General Causality Orientations.....	60
6.4.3. Contingent Self-Esteem.....	62
6.4.4. Sexual Liberalism.....	65
6.5. DEPENDENT/OUTCOME VARIABLES.....	66
6.5.1. Life Aspirations	67
6.5.2. Situational Motivation for Consumption.....	69
6.5.3. State Self-Esteem.....	69
6.5.4. Body (Dis)satisfaction.....	72
6.5.5. Basic Needs Scale	72
6.6. RESULTS	77
6.6.1. Manipulation Check.....	77
6.6.2. Analyses.....	82
6.6.2.1. Initial Analyses.....	82
6.6.2.2. Main Analyses and Hypotheses Testing.....	83
6.6.2.2.1. Hypothesis 1: Life Aspirations.....	86
6.6.2.2.2. Hypothesis 2: Motivation for Consumption and Hypothesis 3: Basic Needs Satisfaction.....	95
6.6.2.2.3. Hypothesis 4: State Self-Esteem	95
6.6.2.2.4. Hypothesis 5: Body (Dis)satisfaction	99
6.7. BRIEF DISCUSSION.....	101
CHAPTER 7.....	103
7. STUDY 2: INTERNATIONAL SAMPLE	103
7.1. METHOD	103
7.1.1. Design	103
7.1.2. Participants.....	104
7.1.3. Experimental Stimuli.....	105
7.1.4. Procedure	106
7.2. PILOT STUDY	107
7.3. CONSTRUCTS AND MEASURES.....	108
7.4. INDIVIDUAL DIFFERENCES AND COVARIATE VARIABLES	109
7.4.1. Mood	109
7.4.2. General Causality Orientations.....	109
7.4.3. Contingent Self Esteem.....	110
7.4.4. Sexual Liberalism.....	113
7.5. DEPENDENT/OUTCOME VARIABLES.....	113
7.5.1. Life Aspirations	113
7.5.2. Situational Motivation for Consumption.....	116

7.5.3. State Self-Esteem	117
7.5.4. Body (Dis)satisfaction	119
7.5.5. Basic Needs Scale	119
7.6. RESULTS	124
7.6.1. Manipulation Check	124
7.6.2. Analyses	127
7.6.2.1. Initial Analyses	127
7.6.2.2. Main Analyses and Hypotheses Testing	127
7.6.2.2.1. Hypothesis 1: Life Aspirations	131
7.6.2.2.2. Hypothesis 2: Motivation for Consumption.....	139
7.6.2.2.3. Hypothesis 3: Basic Needs Satisfaction.....	139
7.6.2.2.4. Hypothesis 4: State Self-Esteem	142
7.6.2.2.5. Hypothesis 5: Body (Dis)satisfaction	142
7.7. BRIEF DISCUSSION	144
CHAPTER 8.....	145
8. GENERAL DISCUSSION.....	145
8.1. LIMITATIONS AND FUTURE RESEARCH.....	160
8.2. CONTRIBUTION TO KNOWLEDGE.....	163
REFERENCES	165
BIBLIOGRAPHY	182
APPENDICES	188

LIST OF TABLES

<u>TABLE 1: STUDY 1 SAMPLE'S SOCIO-DEMOGRAPHIC PROFILE, %, N=166.....</u>	<u>53</u>
<u>TABLE 2: STUDY 1 FACTOR ANALYTIC STRUCTURE FOR CSES.....</u>	<u>64</u>
<u>TABLE 3: STUDY 1 FACTOR ANALYTIC STRUCTURE FOR SSES.....</u>	<u>71</u>
<u>TABLE 4: STUDY 1 BIVARIATE CORRELATIONS AND DESCRIPTIVE STATISTICS FOR THE OUTCOME VARIABLES.....</u>	<u>74</u>
<u>TABLE 5: STUDY 1 THOUGHTS LISTED PER EXPERIMENTAL CONDITION.....</u>	<u>81</u>
<u>TABLE 6: STUDY 1 THOUGHTS LISTED ACROSS GENDERS.....</u>	<u>81</u>
<u>TABLE 7: STUDY 1 MEANS AND STANDARD DEVIATIONS ACROSS GROUPS FOR DEPENDENT VARIABLES.....</u>	<u>85</u>
<u>TABLE 8: STUDY 1 RESULTS OF 2X4 ANCOVAS FOR EXTRINSIC ASPIRATIONS.....</u>	<u>92</u>
<u>TABLE 9: STUDY 1 RESULTS OF 2X4 ANCOVAS FOR INTRINSIC ASPIRATIONS.....</u>	<u>93</u>
<u>TABLE 10: STUDY 1 RESULTS OF 2X4 ANCOVAS FOR STATE SELF-ESTEEM SCALE.....</u>	<u>98</u>
<u>TABLE 11: STUDY 1 RESULTS OF 2X4 ANCOVAS FOR BODY IMAGE STATES SCALE.....</u>	<u>100</u>
<u>TABLE 12: STUDY 2 SAMPLE'S SOCIO-DEMOGRAPHIC PROFILE, %, N=91.....</u>	<u>105</u>
<u>TABLE 13: STUDY 2 FACTOR ANALYTIC STRUCTURE FOR CSES.....</u>	<u>112</u>
<u>TABLE 14: STUDY 2 FACTOR ANALYTIC STRUCTURE FOR SSES.....</u>	<u>118</u>
<u>TABLE 15: STUDY 2 BIVARIATE CORRELATIONS AND DESCRIPTIVE STATISTICS FOR THE OUTCOME VARIABLES.....</u>	<u>121</u>
<u>TABLE 16: STUDY 2 THOUGHTS LISTED PER EXPERIMENTAL CONDITION.....</u>	<u>126</u>
<u>TABLE 17: STUDY 2 THOUGHTS LISTED ACROSS GENDERS.....</u>	<u>126</u>
<u>TABLE 18: STUDY 2 MEANS AND STANDARD DEVIATIONS ACROSS GROUPS FOR DEPENDENT VARIABLES.....</u>	<u>130</u>

TABLE 19: STUDY 2 RESULTS OF 2X4 ANCOVAS FOR EXTRINSIC ASPIRATIONS
..... 136

TABLE 20: STUDY 2 RESULTS OF 2X4 ANCOVAS FOR INTRINSIC ASPIRATIONS
..... 137

TABLE 21: STUDY 2 RESULTS OF 2X4 ANCOVAS FOR BASIC NEEDS
SATISFACTION..... 141

TABLE 22: STUDY 2 RESULTS OF 2X4 ANCOVAS FOR BODY IMAGE STATES
SCALE..... 143

LIST OF FIGURES

FIGURE 1: THE SELF-DETERMINATION CONTINUUM, SHOWING TYPES OF MOTIVATION, REGULATION AND CAUSALITY FOR HUMAN BEHAVIOURS THAT VARY IN THEIR DEGREE OF SELF-DETERMINATION. 31

PREFACE

This preface serves to outline the content of thesis and its organisation.

The thesis starts by presenting an abstract.

The introduction attempts to answer the question: Why is this research of importance? The introduction also attempts to exemplify the theoretical logic that serves as the epicentre of understanding the effect of sexual imagery in advertising on individuals.

The literature review is presented in two parts. The first discusses previous work on sexual appeals in advertising that has been reported in three literatures: marketing and consumer behaviour literature; behavioural and decision making literature; and social psychology. The second part presents the theoretical lens that undergirds the thesis, which considers the effects of sexual appeals in advertising by adopting a Self Determination Theory (SDT) perspective. The possible psychological effects of exposure to the imagery are understood through observed effects in related SDT variables / concepts and some additional commonly used dependent variables.

The next section presents a summative overview of the arguments emerging from previous research and identifies gaps in the literature, which are suggested to constitute the research questions, objectives and hypotheses that govern the experimental studies.

Some attention is given to important methodological and epistemological considerations before presenting the results of the experimental studies. This is followed by a general discussion, comparison and contrast of the results of both studies.

The thesis concludes by outlining the contribution to knowledge and the theoretical and practical implications of the project.

Experimental stimuli are included in the Appendices.

This page is intentionally left blank

CHAPTER 1

1. INTRODUCTION

The following paragraphs consider the importance of advertising's unintentional consequences and provide a coherent account justifying the need for renewed research into sexual advertising appeals.

1.1. *Unintentional Consequences of Advertising*

Despite the 110 years that have elapsed since the build-up of advertising as a professional, social and cultural practice, a tool, and a discourse, in the early part of the 21st century we are still unclear about the actual effects of advertising. As Hackley (2010) notes, although advertising's economic virtues are relatively well understood, its unintended, psychological, sociological and cultural (negative) effects are still poorly understood and excite debate.

For the present project, Pollay's (1986) critical treatise on negative unintentional consequences is key. At the core of the project lays the assumption that exposure to a specific kind of advertising appeals – sexual appeals – leads to identifiable psychological (motivational) consequences, which can be traced through rigorous experimentation.

The following section attempts to outline Pollay's argument by focusing on the few psychological references in his article, serves to identify the core syllogistic behind this project. This is followed by an argumentation for the choice of sexual appeal as the treatment stimuli compared to other possible appeals.

According to Pollay the proliferation of advertising constitutes advertising as a formative influence not only within culture and society but also at the level of the individual. Pollay's argument is based on a critique of advertising as a system or institution that affects society as a whole, but through close analysis of his critique it is possible to identify interesting insights on the unintentional consequences of advertising that inform individual action and have the potential to shift individual actions and behaviour toward specific results. Holbrook (1987:96), in his rejoinder to Pollay's critique, asserts that Pollay presents advertising as a "monolithic institution that somehow (whether intentionally or unintentionally) acts in concert to pursue certain shared ends via

a set of common means". For the purposes of this project, the question that merits attention is not necessarily whether advertising acts as an institution in concert, but whether (repeated and prolonged) exposure to advertising has the potential of affecting the individual in a detrimental manner. Setting aside the putative effects of just one advertisement or the randomness of the array of elements used by different advertisers (Holbrook, 1987), Pollay usefully identifies unintentional consequences that are dispersed by advertising.

As Pollay notes, despite the intentional direct effects of advertising on increasing sales and stimulating the purchase process, advertising has profound effects on individual behaviour. Consumption is thereby constituted as top-of-mind behaviour, and one that has the ability to solve almost all problems that are unanswered in modern society. Such a state of mind is presented as commonplace. As Pollay goes on to explain, the idea that people may be immune to advertising is a myth rather than a fact (see for example Hackley, 2010). Advertising creates like magic a set of symbols and images that converts products into meaningful entities and gives a simple answer to the constant anxieties of life (Williams, 2000).

At the individual level, advertising may equip one to make choices that could not otherwise be discernible, but according to Pollay, advertising keeps us working and spending to chase new goals, although our basic needs may well have been met. Therefore, our psychological needs and aspirations are channelled "into consumption behaviours by romanticising goods" (Pollay, 1986:25). And this shift of intimacy towards goods displaces affect from people to objects resulting in alienated personalities by creating a self that is perceived as an exchange commodity. Therefore, transferring feelings from people to products and reinforcing such transference through repeated and prolonged exposure to advertising leads to the objectification of personal relationships and detached views of the self with mercenary motivations. Furthermore, the proliferation and intrusiveness of advertising's ability to command attention may well inhibit self-awareness by preoccupying individuals with commercial enticements and exhortative fantasies that induce feelings of passivity and powerlessness (Pollay, 1986).

An example of research on the ability of advertising to pre-occupy individuals with commercial enticements and exhortative fantasies is the work undertaken by Dittmar and colleagues (Dittmar, Halliwell and Ive, 2006; Dittmar and Howard, 2004; Halliwell and Dittmar, 2004). In a series of experimental investigations Dittmar and colleagues investigated the effects of ultra-thin women's images as portrayed in advertisements and

dolls and showed that these images not only work as socialisation agents but also have detrimental effects on women's self-esteem and body-related stress.

The depiction of the "good life" in advertising further exacerbates the nourishment of overwhelming aspirations that are rooted in a materialistic and commoditised background leading to self-denigration and self-contempt (Pollay, 1986). Pollay describes the distorted mirror function of advertising in that it creates an image that evokes fascination with what is intangible, and plays on the irrational desire to go through the looking glass to the world that is situated on the other side, thereby evoking the sense that the "grass is always greener on the other side". This sensation instils doubt and a sense of inadequacy in the individual confronted by advertising. Comparing real life to the images and claims depicted in advertising, life may seem small and unfulfilling. The reinforcement of selected "simplistic, symbolic stereotypes" intensifies feelings of inferiority and the sense of unobtainable accomplishments (Pollay, 1986: 27).

Pollay suggests these possible consequences of advertising deserve consideration, not least because they are the result of the "reflective ruminations of senior, highly respected scholars" (Pollay, 1986:31). Since these insights "are sometimes self-evident and their rhetoric is often very persuasive" but "few of the alleged effects are directly observed, nor is the causal role of advertising certain" (Pollay, 1986:31). *The present project sets out to provide evidence of causality for these unintended alleged effects by studying the context of sexual appeals in advertising.*

1.2. Why Research Sexual Appeals?

Sexual appeals mainly in the form of sexual imagery has been used in advertising since the very beginning of advertising in order to break through the clutter, captivate the audience's imagination, seduce them and in the end sell the featured product. Sexual advertising appeals have been used to market all kinds of products from alcohol to cars, perfumes and foods. Reichert (2003) mentions that the designer clothing brand Abercrombie and Fitch's adoption of a "magalog" format (a combination of magazine and catalogue replete with sexual imagery) managed to boost their sales revenue from \$50 million in 1992 to over \$1.5 billion in 2001. He also mentions Candie Inc., a shoe and perfume brand, whose "anywhere you dare" campaign utilised sexual celebrity imagery significantly increased the brand's market share in the \$1.2 billion teen fragrance segment. The American newspaper *USA Today* (Bruce, 2009) reports that celebrity cable

television stars are used to sell "salad lunch dates" via an online webcam chat, and that fast food retailer Burger King allows its customers to watch a live webfeed of an anonymous 20 year-old model bathing while they are asked to vote on the bikini she will wear the following day. In December 2009 the site managed to acquire 70,000 unique visitors in fewer than 13 days. Recently, the alcohol brand Bacardi, changed its advertising strategy which was previously based on a set of sexually explicit and suggestive television commercials featuring the British football star Vinnie Jones because of regulatory and market pressures against alcohol advertising which led to tighter industry self-regulation and accompanying messages warning against binge drinking (Singh, 2004). Such incidents show both the ability of sexual imagery to boost a brand's revenue and market share but also the fine line between success and public offence.

Similar examples of sex appeals used to sell any kind of products can be found in almost every corner of the market. Billboards, catalogues, magazines, television commercials and even internet advertising have become more extreme, pervasive and suggestive than ever before (Kilbourne, 2005). Severn, Belch and Belch (1990) suggest that although the percentage of advertisements using sexual stimuli in their design has not increased, the presentation of sexual stimuli has changed. Reichert and Carpenter (2004) suggest that magazine advertising utilising sexual imagery has not only become more explicit but also more prevalent compared to previous decades (in the 80's and 90's). In summary, it appears the passing decades have resulted in an increase in the use of sexual stimuli in terms of quantity and explicitness, becoming more titillating, and causing stronger affective reactions and memories (Lass and Hart, 2004; Reichert and Lambiase, 2003; Reichert, Lambiase, Morgan, Carstarphen, Zavoina, 1999; Belch, Belch and Villareal, 1987).

Given the increase in sexual imagery in both quantity and quality (i.e. sexual imagery appears more often in advertisements – even in product segments that are traditionally unrelated with sexualised products, such as fast food (Bruce, 2009) – and is more intense in terms of what is depicted) understanding the effects and repercussions of sexual imagery on consumers is important for addressing related issues, such as how they may reinforce consumer choice or how it is possible to improve consumer protection. The latter is particularly important since the literature suggests most sexual explicit and pervasive advertisements are targeted to the youth (Reichert, 2003).

Advertising has a definite effect on people's behaviour and as Hackley (2010) points out, even though people claim not to be influenced by advertisements, a glance at their

everyday consumption choices tells a different story. In light of this assumption, and given the various critiques that have arisen regarding the ethical, cultural and ideological impacts of advertising on society (Hackley, 2010), Reichert (2002) argues further that research into the effects of sexual imagery in advertising is not to serve marketers to help make better use of sexual advertising appeals in order to better persuade consumers. Such research instead helps clarify the various effects and can provide the groundwork for public policy makers and individual consumers to realise how sexual imagery/appeals may influence their behaviour.

Therefore, in the hyper-sexualised, network-mediated, image-flooded, scopic¹ society of the 21st century, the relevance of induced consumer motivations from exposure to advertising with sexual imagery becomes more relevant. Although prior research from the marketing/consumer research domain offers evidence of the limited effects that sexual imagery has on consumers in terms of marketing effectiveness (intentional consequences) (e.g. Severn, Belch and Belch, 1990), such research remains largely silent about the induced **unintentional** psychological effects. Although previous studies that are external to the marketing/consumer research domain offer some evidence of the possible array of effects that sexual imagery has on human psychology (e.g. Dittmar, Halliwell and Ive, 2006) they do not explicitly investigate motivational issues.

The present research aims to address these limitations by providing insights into the motivational processes of consumers who are exposed to advertising with sexual imagery. The need for such an investigation is not only supported by the proliferation of sexual imagery in advertising but also by previous research in psychology, behaviour and decision making that shows exposure to sexual imagery may have detrimental effects on consumer health and well-being (e.g. Van de Bergh, Dewitte and Warlop, 2008; Ariely and Loewenstein, 2006; Dittmar and Howard, 2004).

¹ Ocular-centric society; The term refers to Jay Martin's work on the "scopic regimes of modernity" (Jay, 1988:1) where he presents the idea that modern society is particularly concerned with visual representations of reality thus changing the "perceptual field" constituting it "fundamentally non-reflexive, visual and quantitative" (Jay, 1988:1)

CHAPTER 2

2. LITERATURE REVIEW

The first section on 'Sexual appeals in advertising' reviews the various studies of sexual appeals in advertising and consumer research and shows that the bulk of research has been preoccupied with identifying intentional (marketing) consequences of the use of such advertising appeals. The second section on 'Sexual appeals and human behaviour/decision making' identifies key literature outside of the consumer research domain that portrays the unintentional consequences of sexual appeals in advertising and sexual imagery in more general terms. Finally, the third section on 'Self Determination Theory (SDT)' explains the theoretical grounds on which the investigations of the present project are based. Self Determination Theory frames the conceptualisation of the unintentional consequences of advertising on motivation.

2.1. *Sexual Appeals in Advertising*

The history of research into the effects of sexual imagery on advertising and marketing outcomes dates back to the late 60's when Steadman (1969) investigated the effect of "sexy illustrations" (i.e. the use of sexually attractive females in advertisements) on brand recall. His findings seem to suggest that although sexual illustrations do not affect brand recall immediately after exposure to the ad, after one week the participants exposed to sexual illustrations show a smaller number of incorrect recalls than participants exposed to non-sexual illustrations. Since then approximately 60 studies (e.g. Wise, King and Merenski, 1974; Peterson and Kerin, 1977; Courtney and Whipple, 1983; Severn, Belch and Belch, 1990, LaTour and Henthorne, 1993; Reichert, 2003) have been identified by the researcher. These studies constitute a relatively small body of research. As Reichert (2002) indicates, a maximum of nine studies per decade appear and goes on to suggest that this may be because sex research is frequently abandoned in favour of more socially acceptable research.

Nevertheless, despite the apparent profusion of sexual appeals in advertising, consumer research on the effect of sexual imagery remains highly fragmented and contradictory not only in terms of defining and most importantly operationalising the concept of sexual appeals but also in terms of the effects presented (please see the

relevant table in Appendix 10 for an annotated summary of a selection of studies). As Lass and Hart (2004) note, most research in the field has been based either on a research-oriented perspective that uses content analysis to classify and analyse advertisements (e.g. Reichert, 2003) or on an American, consumer perspective based on the use of mostly student samples (e.g. Severn, Belch and Belch, 1990).

The following sections define sexual appeals in advertising in order to clarify the operationalisation of sexual appeals within the premises of the present project. The aim is to present the (intentional – marketing) effects of sexual appeals in advertising as they have been outlined through the various studies, while focusing on possible problems that sexual appeals might create in terms of advertising effectiveness.

2.1.1. Defining Sexual Appeals in Advertising

Sexual imagery or sexual content in advertising is a nebulous and vague concept (Reichert, 2002). However, from the different definitions researchers have given regarding what constitutes sex(ual appeals) in advertising a pattern emerges. Due to the experimental methods used, sex in advertising (and sexual imagery) has been operationalised more often in terms of nudity and the physical presence of attractive male or female models. Such an approach however, leaves space to question what is that which consumers themselves perceive as sexual? Such an understanding may depend on many different factors including: one's gender (either as a socially constructed or psychological concept) versus one's biological sex; one's sexual preferences; and one's sexual personality related characteristics, such as erotophilia/phobia, sexual satiation, sexual self schema and sexual guilt, as well as other more general psychological traits and states.

Reichert (2002) points out sexual content in advertising may take many forms. Gould (1994) notes that on most occasions sexual imagery refers to visual representations of people in various stages of nudity, (alone or in couples/groups) endorsing a variety of more or less sexually explicit interactions. Other forms of sexual content include sexually suggestive or insinuating language (innuendos or double entendres), sexually charged contexts (e.g. depictions of romantic scenery or adult entertainment clubs) and sexual embeds and/or symbolisms (e.g. products depicted in a way that symbolises human intimate/sexual interaction). Finally, sex appeals can be either explicit in the form of some kind of sexual imagery, either in the form of an actual image or within the copy, or

both (Severn, Belch and Belch, 1990) or covert, signified by the underlying metaphors of the artefacts used in the advertisement (i.e. the car that drives on serpentine, spiralling roads through the country contains a direct metaphor of the female curvature subdued under forthright masculine power).

Reichert and Ramirez (2000) attempt to define sex in advertising (sexual appeals in advertising) by adopting a grounded theory approach. Their paper attempts and generally manages to address the issues of definition and specifically to understand the full range of sexual appeals that may be found in advertisements (i.e. what else is there besides nudity and model attractiveness?) as these are perceived by a consumer's point of view. Reichert and Ramirez (2000) begin by identifying the definitional problems encountered in the field of investigation. First they argue that by focusing mainly on nudity (and different degrees thereof) researchers assume a linear relationship between levels of nakedness and sexual arousal, which is something that is not necessarily true, as is the case, for example, with the depiction of clothed models that attract ample sexual attention. Here one may consider the most famous cinematic striptease by Rita Heyworth as 'Gilda', where the only things removed are her gloves. Second, by operationalising sexual advertising appeals only in terms of nudity, other determinants of sexual attraction, such as physical interaction and behaviour, escape researchers' attention. Third, besides nudity certain research (e.g. Bello, Pitts and Etzel, 1983) has tried to identify 'suggestive' sexual appeals in advertising. As Reichert and Ramirez (2000) note this categorisation of advertising sexual stimuli suffers from employing a loose definition that might cover differing types of stimuli, such as camera angles, suggestive copy, postures of couples and double entendre.

Given these problems Reichert and Ramirez (2000) embark on an attempt to discover what consumers perceive as sexual in different advertisements. The categories of definition of sexual advertising appeals presented by Reichert and Ramirez (2000) are:

- Physical features including clothing, attractiveness and body,
- Movement including behaviour, demeanour and voices,
- Context including photographic effects, setting, music, lighting and black and white,
- Proxemics (the physical distance between people),
- Voyeurism/Fantasy including voyeurism, projection, models portrayed as wanting sex with the viewer, and fantasy-like.

These categories cover a very wide spectrum that had been previously untouched by other research. Their findings show the wide scope of consumer perceptions and evaluations of what is considered sexual when viewing a particular advertisement and exemplify certain gendered tendencies in evaluating advertising sex appeals. In this sense, Reichert and Ramirez (2000) locate differences between men and women, with men focusing more on the physical features of the models, and women focusing more on contextual aspects of the ad and proxemics. They also find that when describing an advertisement containing sex appeal, 84% of men described an advertisement which feature only a female model, whereas 64% of women described the times an advertisement contains a couple.

Reichert and Ramirez (2000) recommend that in future research all sexually oriented appeals should be appeals as perceived sexual by the consumers. Of course although such a recommendation is valid and useful, the question one faces is that of measurement and operationalisation. Given the experimental nature of most studies, the operationalisation of sexual appeals logically and expectedly comes from a variable that can be clearly operationalised; nudity is such a variable.

For the purposes of the present thesis, sexual imagery refers to the explicit or highly suggestive use of graphical representations of clothed, semi-nude and nude male, female models and couples in sexual positions.

In the Method sections of the different studies this thesis reports a more detailed description of the exact operationalisation of sexual imagery for the purposes of the experiments and their design. (Please see Appendix 9 for the experimental stimuli used in the studies presented in this thesis)

2.1.2. Marketing Effects of Sexual Appeals in Advertising

As Reichert (2002) points out, the comprehensive body of research regarding the use of sexual appeals in advertising lays within the marketing and consumer research domain. Historically this research started as an investigation of the use of decorative models in advertising (i.e. the presence of female models, partially clad or nude, whose purpose was nothing more than decorative to the advertising frame) (e.g. Baker and Churchill, 1977; Alexander and Judd, 1978; Reid and Soley, 1983). Since then research has occupied itself with answering questions of marketing effectiveness (intentional consequences) of the use of sexual appeals in advertising. The overarching question that

pertains to most studies is whether the existence of sexual appeals in advertising enhances or hinders advertising processing (Reichert, 2002). If the presence of sexual appeals enhances processing then the relevant ads should be more effective and result in more positive attitudes and increased sales, otherwise marketers are wasting time and money.

The literature suggests that sexual imagery may have different effects on different dependent variables (such as attitude towards the ad, brand recall etc.) and may also have different effects depending upon the type of product advertised, as well as the socio – psycho – demographic characteristics of the target audience (Belch, Belch and Villareal, 1987). Nevertheless, results in the relevant literature remain confounded since research reports both positive and negative effects. For example, in the study by Peterson and Kerin (1977) consumers rate ads with sexual imagery as least appealing, consider them more offensive in nature, have lower perceptions of product quality and company reputation, however they also exhibit increased attention towards the ad. Similarly, Bello, Pitts, and Etzel (1983) note that sexual imagery that increases the controversy of the ad also enhances consumer interest in the ad, but fails to improve affect towards the product and effectiveness of the ad.

Generally, effects of sexual imagery have been found to: a) improve ad recognition but not brand recognition (Chestnut, La Chance and Lubitz, 1977; Reid and Soley, 1981), b) improve behavioural intention ratings and recall measures when the product is either sexually relevant or when the sexual imagery (and the ad itself) is congruent with the nature of the product (Tinkham and Reid, 1988; Richmond and Hartman, 1982; Courtney and Whipple, 1983; Baker and Churchill, 1977), c) generate uneasiness and tension among female audiences due to either the objectification of the female nature or the sexist prototypes and roles ads such as these sustain (Ford, La Tour and Clarke, 2004; La Tour and Henthorne, 1993), d) reduce consumers' ability to recall copy-specific points especially when ample information is present, e) decrease product related thoughts but increase ad-execution related thoughts and attitude towards the ad measures but not towards the brand (Severn, Belch and Belch, 1990) and f) vary accordingly depending upon consumer personal and cultural values and gender (Lass and Hart, 2004).

Finally, content analysis of real life advertisements has confirmed that while women are still more likely to be portrayed in traditional sex-roles or objectified as opposed to men, and advertisements utilising naked female models are more prevalent than those featuring males, there has been a great increase in couples engaging in or insinuating

sexual behaviour (Reichert and Carpenter, 2004; Lin, 1998). Finally Reichert (2003) confirms that from the advertisements he content analysed between 1992 and 1998 a larger amount of advertisements containing sexual imagery are targeted to a younger population that is said to be more susceptible to external influence. In fact, he observes that women's magazines are more replete with sexual imagery (1.6 times higher) than men's magazines, which may show the persistent attempt of advertisers to imbue women with particular images and symbols of sexuality.

2.2. Sexual Stimuli and Human Behaviour / Decision Making

In a parallel research stream (please see the table in Appendix 10 for an annotated summary of a selection of studies), research focused on the effects of sexual stimuli (imagery or cues) on human decision making reveals interesting aspects of human behaviour and psychology that could contrast with the intentional consequences of sexual appeals in advertising and also delineate the detrimental effects (unintentional consequences) that generalised uses of sexual imagery in advertising may have on consumer health and well-being.

A series of recent studies on the effects of sexual stimuli on human behaviour and decision making have demonstrated that sexual stimuli can actually affect a set of human psychological and physiological mechanisms that is broader than originally anticipated. For example, Roney (2003) shows, that when young males are primed with sexual stimuli (either exposure to images of non-nude young females or by simply being in the same room with members of the opposite sex) they exhibit a series of cognitive-psychological effects. Roney (2003) reveals that when young males are exposed to young women, they adopt a psychological profile of high status men. Young males (high school and university students) who are exposed to younger females in two experimental studies exhibited high valuations of their personal material wealth, financial success and social success in life, momentary feelings of ambition and aggressiveness, and self descriptions of personality traits that belong to the extraversion dimension of the Big Five personality questionnaire and especially in the sub-dimensions of dominance and capacity for status.

Wilson and Daly (2004) report that men exhibit steeper discounting of future monetary rewards after rating the appeal of images with pretty women, unlike men rating less attractive women. Wilson and Daly (2004) showed that such an effect could not be duplicated when the participants rated the appeal of more versus less appealing cars.

Ariely and Loewenstein (2006) show that sexually aroused young males are more prone to engage in a wide ranging variety of sexual activities which they would not prefer if they were not aroused. Also, they are more prone to engage in ethically precarious behaviours in order to procure sex as well as engage in unsafe sexual practices. Most importantly, the results of Ariely and Loewenstein's (2006) study imply that people seem to exhibit a limited perception regarding the impact that sexual arousal may have on their own judgments and behaviour. Van de Bergh and Dewitte (2006) note that when males are exposed to sexual stimuli (advertisements containing sexual imagery, pieces of clothing – bras), they tend to accept unfair offers in ultimatum games. An especially interesting finding is that even men with high testosterone levels tend to have lower acceptance levels of unfair offers when exposed to sexual stimuli, although the effect is mediated by the levels of testosterone (males with higher testosterone tend to reject unfair offers). This finding corroborates the aforementioned research which shows that males exposed to sexual stimuli tend to prefer sooner, smaller rewards versus delayed, larger ones (Wilson and Daly, 2004) and that people are unaware of the effects that sexual stimuli may have on their perceptions (Ariely and Loewenstein, 2006). Furthermore, Van de Bergh, Dewitte and Warlop (2008) demonstrate that exposure to sexual stimuli has a definite impact on delay discounting of monetary rewards, something that is not dependent upon mood differences or levels of positive and negative affect. They further show that the same pattern of delay discounting is exhibited on candies and soda cans and is therefore generalisable to different types of rewards, while the effect is mediated by levels of monetary satiation (i.e. the level that participants feel that they are well-off or not in income terms) and subjective sensitivity of the Behavioural Approach System (i.e. a system proposed to exist in the brain which modulates the reward sensitivity of individuals: Gray, 1990). In essence, Van de Bergh, Dewitte and Warlop's (2008) results demonstrate that sexual stimuli induce an appetitive motivation (sexual appetite) which impacts on consumers' reward centres, making them crave anything rewarding on the spot (not only sexual rewards), especially in cases of individuals with a sensitive reward system and individuals who feel economically deprived. Such a finding implies that the effects of sexual stimuli used in advertising extend well beyond the mere effects on brand, ad, and product evaluation and have the ability to affect psychological mechanisms of consumers which have much wider impact on human behaviour than originally anticipated.

Finally, functional magnetic resonance imaging (fMRI) research which maps the neurobiological differences between men and women when exposed to sexual stimuli

demonstrates that males exhibit greater activation in the amygdala (a brain region involved in emotional arousal) and in the hypothalamus (a brain region involved in reproductive functions) (Hamman, Herman, Nolan and Wallen, 2004). The study utilised sexual stimuli that is equally arousing for both men and women and therefore the observed differences were less likely to be due to subjective sex differences in arousal levels. Common areas of activation in both men and women referred to regions associated with visual processing, attention and rewards. Also, an important finding is that both men and women rated the photos of couples in sexual activity as more attractive compared to opposite sex nudes. In equally interesting research, Lykins, Meana and Straus (2008) using eye-tracking technology to record eye movements while participants viewed erotic and non-erotic imagery, the authors show that men focus their attention on the female figure almost exclusively (therefore exhibiting greater category-specificity) while women exhibit a more equally dispersed attention to both male and female figures.

These results confirm the aforementioned observation that exposure to sexual imagery has distinct physiological and psychological effects on human behaviour which deserve to be investigated further.

2.3. Effects of Beauty Ideals in Advertising on Individuals

Recent research undertaken by Dittmar and colleagues (Dittmar, Halliwell and Ive, 2006; Dittmar and Howard, 2004; Halliwell and Dittmar, 2004) exemplifies the ability of advertising to pre-occupy individuals with commercial enticements and exhortative fantasies and through that occupation produce negative effects on individual well-being. In a series of experimental investigations Dittmar and colleagues investigated the effects of the ultra-thin women's images as portrayed in advertisements and dolls and showed that these images not only work as socialisation agents but also have detrimental effects on women's self-esteem and body-related stress. Dittmar and Howard (2004) for example show that although images of ultra-thin and average-sized models in advertisements do not impact advertising effectiveness (intentional consequences) they heighten women's body focused anxiety. This was especially true in the cases where the women had strongly internalised thin bodies as the ideal body type to be acquired. What is more interesting is that exposure to average-sized models actually decreased body focused anxiety even compared to landscape advertisements, exemplifying how depictions of models closer to reality might have an alleviating effect on consumers' anxieties.

Similarly, Dittmar, Halliwell and Ive (2006) show that young girls, aged 5 to 8 years, when exposed to Barbie images versus images of either more average-sized dolls and landscapes, exhibit heightened body dissatisfaction and decreased body-esteem as well as aspirations to attain thinner bodies as adults (in the hope of looking more like Barbie). In both studies (Dittmar, Halliwell and Ive, 2006; Dittmar and Howard, 2004) the authors note that heightened body focused anxiety and body dissatisfaction have detrimental effects for women's psychological well-being and may lead to depressive affect, unhealthy eating behaviours and eating disorders. All effects were observed after only a single exposure to the experimental stimuli, which begs the question of the cumulative effects after multiple exposures as in real life.

By the same token, a growing body of literature indicates that exposure to media content containing ultra-thin models or generally images that allude to a particular 'thin ideal' has significant effects on eating disorders especially for women (e.g. Mask and Blanchard 2011a,b). This growing body of literature shows that the processes that affect individual disorders are closely related with the motivational mechanisms of self-determination and that the ability of individuals to regulate their own self-determination may mediate the socio-cultural pressures to conform to particular beauty ideals (Pelletier and Dion, 2007).

To date, the aforementioned body of research has played an important role on elucidating the effect of the general socio-cultural coordinates of beauty, mainly on women, as well as possible mechanisms that may mediate such effects.

CHAPTER 3

3. SELF-DETERMINATION THEORY (SDT)

3.1. *Theoretical Overview*

The purpose of this project is, as previously noted, to investigate the impact of sexual imagery on consumer motivations. Motivation is a central concern in terms of motivating consumers/customers. Managers need to be aware of what motivates consumers and can be acted upon, as well as the quality of motivation that marketing activities induce in individuals. In general, individuals can be motivated either by external factors such as rewards (of various types) and peer opinions that exert pressure to conform to specific behaviours or subjective interests, curiosity and personal values. The latter types of intrinsic motivations are not necessarily externally reinforced but can nonetheless maintain long-term efforts and goals. The interplay between extrinsic and intrinsic motivations as well as the fundamental needs inherent in human behaviour is the territory of SDT.

Self Determination Theory² (SDT) is a macro-theory of human motivation; as such SDT belongs to the domain of Social Psychology. SDT has been employed extensively in various domains such as educational settings, work context, interpersonal relationships and health related contexts (e.g. exercising, following specific treatment) (Deci and Ryan, 2000). SDT has also been employed in marketing, sexual behaviours and imagery. Before proceeding to analyse specific studies on these domains the researcher will concisely explicate SDT theory and its concepts.

Deci and Ryan (2000) posit that SDT offers a meta-theoretic, organismic, dialectic approach for exploring the “what” and the “why” behind human motivation (for a detailed review on the tenets of SDT, please see Deci and Ryan, 2000; Ryan and Deci, 2000a; Deci and Ryan, 1985a).

SDT proposes that people are: “active, growth oriented organisms who are naturally inclined toward integration of their psychic elements into a unified sense of self and

² The present paragraphs do not serve to completely and comprehensively analyse the facets and research that has taken place within the SDT tradition. The concise and focused summary of SDT theory here serves only to provide a general idea regarding the most important tenets of the theory and account for the theory’s usefulness in exploring the effects of exposure to sexual imagery in advertising, as set by the project’s objectives.

integration of themselves into larger social structures” (Deci and Ryan, 2000: 229) Thus, individuals are portrayed as active organisms with an inherent evolutionary tendency for growth, adaptation to environmental challenges, and integration of new experiences into a coherent and cohesive sense of self. However, these natural human tendencies do not operate in an automatic fashion but require continuous social support. Thus, through the interaction of these inward tendencies and the external environmental/societal influences people may grow and actively engage with life or exhibit defensive and detrimental psychological behaviours.

Stepping on this description of the basic human nature SDT proposes that three basic human psychological needs stand at the basis of all goals even when choices are not necessarily cognitively evaluated for the satisfaction of these needs. In essence, SDT proposes that the three basic psychological needs of ‘autonomy’, ‘competence’ and ‘relatedness’ are the basic nutrients for the support of human motivation as well as the on-going psychological growth and well-being of humans. Based on these three basic needs and the essentially growth oriented nature of humans, SDT proposes that socio-cultural backgrounds or proximal goal settings operate in an enhancing or thwarting capacity of these needs and their fulfilment. In this sense, conditions fostering the individual’s experience of these three needs enhance one’s ability to act volitionally and offer high quality forms of motivation and engagement for various activities (Deci and Ryan, 2000). On the other hand, the degree to which the environmental conditions thwart the fulfilment of these three needs through the activities people undertake has a robust and detrimental effect on human well-being and health. This dialectic between the active nature of humans and the ability of the social context to thwart or enhance the fulfilment of the three basic psychological needs is the basis for the predictions of SDT about human behaviour (Deci and Ryan, 2000).

In order for SDT to differentiate between different types of motivation, that is define which types of motivation are closer to the natural human tendencies and which are not, SDT proposes and explores the dynamics of intrinsic motivation and extrinsic motivation. In general, intrinsically motivated behaviours are behaviours that people find interesting and keep on doing in the absence of external reinforcements (Deci and Ryan, 2000). In this line, intrinsic motivation refers to the active engagement with an activity which one finds interesting and also promotes one’s growth (Deci and Ryan, 2000). Intrinsically motivated activities are activities people do when they are left free to follow their inner tendencies (Deci and Ryan, 2000). Deci and Ryan (2000), mention that such

activities are characterised by an Internal Perceived Locus of Causality (I-PLOC: deCharms, 1968; Heider, 1958). Perceived locus of causality represents the perception individuals have concerning the origins of their behaviour. In that sense, if individuals feel a specific behaviour comes from their intrinsic tendencies the activity/behaviour is characterised by an internal locus of causality. On the other hand, when extrinsic rewards are introduced, individuals exhibit a shift in their perceived locus of causality from internal to external.

Nevertheless, humans engage in a variety of tasks and activities that they do not necessarily find interesting. The activities in which the individual is motivated by the presence of a separable outcome (separable from the activity itself) and that represent socially based requests for individual behaviour are extrinsically motivated. SDT suggests that humans in their active nature attempt to internalise externally sanctioned behaviours transforming them into subjective values and self-regulations (Deci and Ryan, 2000). Such a mechanism is the means that people use in order to assimilate and reconstitute externally regulated behaviours so that they enact them in a self-determined manner (Deci and Ryan, 2000). Therefore extrinsic motivation is regulated in varying degrees. SDT distinguishes among forms of extrinsic motivation depending on the degree of internalisation and recognises four such degrees of extrinsic motivation, namely (in priority order from most extrinsic to least extrinsic) external regulation, introjected regulation, identified regulation and integrated regulation.

Figure 1: The self-determination continuum, showing types of motivation, regulation and causality for human behaviours that vary in their degree of self-determination.

Behaviour	Non-self-determined					Self-determined
Type of motivation	Amotivation	Extrinsic Motivation				Intrinsic Motivation
Type of Regulation	Non-regulation	External Regulation	Introjected Regulation	Identified Regulation	Integrated Regulation	Intrinsic Regulation
Locus of Causality	Impersonal	External	Somewhat external	Somewhat internal	Internal	Internal

Note: Adapted from Deci and Ryan, 2000

Figure 1 depicts, according to SDT, the different types of motivation and their corresponding regulation as well as locus of causality for the different human behaviours. This continuum represents the degree of internalisation of external regulations in contrast with amotivation and intrinsic motivation. In essence, the differing degrees of internalisation of behaviour result in differing types of extrinsic motivation varying to the extent that they are controlled versus autonomous (Deci and Ryan, 2000). For example, external regulation, which implies no internalisation, represents the most controlled form of extrinsic motivation, while integrated regulation, which implies the maximum degree of internalisation, represents fully volitional extrinsically motivated actions (Deci and Ryan, 2000). In the continuum intrinsic motivation remains separated in the far right corner from the different types of extrinsic motivation which depicts that even fully internalised extrinsic motivations (i.e. integrations) do not typically transform into intrinsic motivation (Deci and Ryan, 2000). Amotivation, which stands in the far left corner of the continuum, contrasts with both autonomous and controlled behaviour since such behaviours involve different types of regulation but are still intentional and motivated. Amotivation represents a state in which people have no intention or motivation to behave, something that happens when people are unable to 'regulate themselves with respect to behaviour' (Deci and Ryan, 2000: 237). Considering all of the above, different regulation for each activity leads to a different process to achieve the goal of that activity which means that activities and the subsequent attainment of goals can be autonomous or controlled.

In order to supplement the regulatory-styles approach SDT also proposes that individuals exhibit general tendencies towards autonomous, controlled or impersonal causality in the regulation of their behaviour (General Causality Orientations: Deci and Ryan, 2000). Causality orientations are an approach to studying individual differences in regulating one's behaviour. In this sense, people can be 'a) autonomy oriented, that is regulate their behaviour based on interested and self-endorsed values, b) control oriented that is regulate their behaviour based on controls and directives on how they should behave and c) impersonally oriented that is not behave intentionally' (Deci and Ryan, 2000: 241). Thus, individuals that are autonomy oriented tend to lean towards intrinsic motivation and more autonomous behaviours; individuals that are control oriented tend to lean towards extrinsic motivation and more controlled behaviours; while individuals that are impersonally oriented tend to lean towards amotivation.

Further, SDT reports that besides the regulation of different activities and the individual's general tendencies to different regulation, the content of different goals may

have a more intrinsic or extrinsic tendency. Kasser and Ryan (1993, 1996) differentiate between 'Intrinsic aspirations' namely affiliation (with others), personal growth, health and community contribution and 'extrinsic aspirations' namely attaining wealth, fame and image. The differentiation between intrinsic and extrinsic aspirations shows how the content of different goals may serve in a better way first to provide more intrinsic types of motivation and second to enhance the fulfilment of the three basic needs of autonomy, competence and relatedness therefore leading to intrinsic need satisfaction.

Research under the SDT tradition (for an excellent review see Deci and Ryan, 2000) demonstrates that the degree of satisfaction of the three basic psychological needs is directly and positively interrelated with people experiencing increased well-being, more wholesome and healthier lives and mental health. Under conditions where the three basic needs are not satisfied people exhibit ill-being and non-optimal functioning, relating to different forms of psychopathology (Ryan, Kuhl and Deci, 1997). Interesting to note is that research in SDT (Deci, Koestner and Ryan, 1999 in Deci and Ryan 2000) has confirmed that when people receive extrinsic rewards for doing an intrinsically interesting activity, individuals exhibit a feeling of control by the rewards and an apparent shift in the perceived locus of causality for the activity from internal to external. This extremely important observation underlines the fact that external rewards, or behaviour based on external rewards have the ability to control people while at the same time deprive them from their sense of autonomy. Taking under consideration the aforementioned types of regulation and goals, SDT posits that intrinsic regulatory styles and aspirations lead to a variety of positive outcomes including enhanced performance, better maintenance of behaviour change, and better mental health (Deci and Ryan, 2000). These observations practically mean that for people that are oriented towards autonomy, engaging in activities with an intrinsic PLOC and achieving intrinsic aspirations will exhibit heightened well-being.

Having explored the general premises of SDT theory the following section looks at the findings of past studies which utilise SDT theory in Marketing, Sexual Behaviour and Imagery, as initially mentioned.

3.2. Self-Determination Theory in Marketing Research

Marketing research has integrated the concepts of SDT to study a variety of issues.

In marketing education SDT has been used to assess students' needs and whether these are met, as well as how students respond to different teaching styles (Binney, Kennedy and Hall, 2004). Binney, Kennedy and Hall (2004) posit that students' basic psychological needs are not satisfied in a variety of settings of tertiary education. Similarly Hall, Maden-Hallett and Binney (2004) note that students taught under a self-ruling teaching method (whereby students are given *a priori* all the study material with a checklist, a system that allows them to go through the material at their own pace, and with lectures to facilitate the explanation of related jargon, symbols and the regulation of the learning load) exhibit a heightened sense of autonomy and relatedness towards their tutors and a more positive affect overall.

In matters of public policy scholars have dealt with the question of what would constitute an effective and efficient communication in terms of SDT and how policy makers can empower or rather influence consumers to make the needed choices without using coercion or manipulation (Thorgesén, 2005). Moller, Ryan and Deci (2006) discuss how policy makers can more effectively communicate public policy and initiate changes in consumer behaviours that can be both sustained in the long term over varying contexts as well as have positive outcomes in terms of consumer well-being. They contend that controlling approaches in policy (i.e. policies that coerce people to change either through external rewards, punishments for not changing or subtle manipulation) are linked to poorer well-being, prompt defiance and resentment and are ineffective over the long-run. Using external controls (e.g. incentives, rewards, punishments, threats) urges consumers to take the easiest path to the desired outcomes (which often involves some form of cheating) or simply follow the policies to gain rewards and avoid punishment, and therefore needing constant monitoring and policing for the time when the effects of the rewards/punishments wear off. Even when more subtle techniques are used to control behaviour, (e.g. utilisation of fear or guilt driven communications) changes in behaviour and attitudes may show increased levels of efficacy but may also have detrimental effects on consumer well-being, making such techniques less than optimal. Alternatively, policy change can be motivated through autonomy supportive measures. A policy that provides meaningful information (relevant to the consumers from which change is asked) and is not intended to frighten or pressure, but presents a clear rationale for its value and the

value of the outcome, imparts respect for the target consumers by acknowledging their general perspectives, and is framed in a language that is autonomy supportive rather than controlling, helps consumers mindfully to consider what might be right for them. Such an approach would allow consumers to seek intrinsic motivation for their actions therefore initiating behaviour changes that would be more persistent over time and require less external monitoring and control. Further empowerment of consumer motivation comes from policies that present consumers with quality choices; that is freedom to choose between alternatives which are relevant to their situation and have meaning and value according to the consumers' perspective. In every case choice needs to be framed in a manner that will be interpreted as an opportunity rather than a threat by consumers.

In services marketing the literature investigates two quite distinct streams: the first stream involves the examination of service employee motivation conceptualised under SDT in the success of marketing strategy (Cadwallar, Burke, Bitner and Ostrom, 2010), in the successful implementation of new technologies (Malhotra, 2004) and in determining core aspects of the service (Thorbjornsen and Suppellen, 2009); the second stream involves the role/interplay between consumer/service customer motivation and successful service encounters as well as sustainable consumer relationships (e.g. Bhagat and Williams, 2002). Previous studies report that in cases where employees perceive that their work is characterised by an increased degree of autonomy (note that employee perceptions regarding work autonomy may differ dramatically from manager perception of work autonomy) and a clear understanding of their role, employees exhibit increased willingness to support corporate innovation initiatives (Cadwallar, Burke, Bitner and Ostrom, 2010). Similarly, in the implementation of new technologies Malhotra (2004) demonstrates that in order for a Customer Relationship Management (CRM) system to succeed, employees and customers need to perceive the implementation of any system as intrinsically regulated. Cui, Ye and Teo (2011) suggest that the higher the degree to which employees and customers feel that a technological system enhances their self-determination the higher the degree of success in implementing the system. That is the more a technological system focuses on employees'/customers' perceptions about their own behaviour and provides a closer fit – enhancement of their basic psychological needs the more employees/customers feel the system is anchored closely to their sense of self and the more they are willing to use it (Cui, Ye and Teo, 2011). Shifting the focus from service employees to the service experience and relationship, Lin, Tsai and Chiu, (2009) demonstrate that self-determination mediates the effect of service satisfaction upon loyalty, whereby service satisfaction strongly reinforces the motivation of customers who

intrinsically enjoyed a service or initially appreciated the service value on an instrumental level. Bhagat and Williams (2002) show that successful service relationships are built upon the satisfaction of the need for relatedness, especially in professional people-driven services. Finally, McGinnis, Gentry and Gao, (2008) show that service consumer experiences that are characterised by an increased degree of volition (therefore have high intrinsic motivation) are more likely to create immersive experiences which in turn enhance enduring involvement with services.

A final area where SDT has been discussed in marketing research is consumer choice; a series of articles discuss whether more choice actually represents more freedom and is therefore to an extent an environment which supports autonomy. As noted before, one of the ways policy makers can communicate public policies more effectively and ensure long-term change is by creating a set of alternative choices relevant to the consumer. However, as Moller, Ryan and Deci (2006) note, one has to be careful when providing choice alternatives because the alternatives (and their numbers) very easily can be either irrelevant or overwhelming for the target audience. In a very early paper Walton and Berkowitz (1979) argue that when choice is increased complexity and decision freedom also increase. As Reutskaja and Hogarth (2009) demonstrate choice satisfaction follows the shape of an inverted U shaped curve whereby satisfaction peaks and then is reduced as the number and complexity of alternatives increases. Markus and Schwartz (2010) suggest that the idea that more choice equals freedom may be a social-cultural bias of an individualistic Western society where focus is upon independent and self-determined individuals. Finally, Botti and McGill (2011) follow up these questions and through a series of experimental studies show that personal choice (versus an externally imposed choice) is not always desirable. Botti and McGill (2011) show that personal choice is only more desirable when consumers are tasked with a hedonic goal rather than with a utilitarian goal.

SDT as shown has been (and is increasingly) integrated in various aspects of marketing research. Certain aspects offer more ground upon which SDT may provide extremely useful and interesting results. SDT's meta-theoretical nature also provides a more comprehensive and detailed framework compared to classical theories of motivation. Although SDT has much to offer, its application in marketing research still remains disjointed and scarce. Future research should focus on the various issues of motivation that are pertinent to marketing scholars and expand the research in a manner that accounts for the alternative aspects of motivation within SDT.

Consumption and relevant market practices create social settings as well as situational proximal goals which influence the functioning and well-being of individuals. SDT's importance in analysing consumer behaviour lies with the ability to explicitly examine the psychological/motivational effects consumption settings and goals have on individuals' well-being. If and when consumption practices create conditions that satisfy the basic psychological needs according to SDT (autonomy, competence and relatedness) then individuals' well-being is enhanced. Similarly if consumption proximal goals refer to the attainment of intrinsic rather than extrinsic aspirations then again individuals' well-being is enhanced. In every other case where consumption practices thwart the satisfaction of basic needs and drive individuals to attain extrinsic aspirations individuals' well-being is diminished.

3.3. Self-Determination Theory and Sexual Imagery Related Research

Outside the field of marketing, Lewis, Neighbors and Malheim (2006) examined the relationship between controlled orientation, erotophilia (i.e. strong positive attitudes towards sexual stimuli), and risky sexual behaviour. Their results demonstrate that individuals exhibiting more controlled orientation were prone to exhibit risky sexual behaviours when exposed to sexual stimuli. This was especially true in the case of male participants. Results suggest that control or autonomy orientations may moderate the impact of sexual stimuli on risky behaviours among individuals. Similarly, Turner, Irwin, Tschann and Millstein (1993) found that children who were raised in an autonomy supportive environment were less likely to initiate sexual intercourse in adolescent age. Also, Sanchez, Crocker and Boike (2005) show that individuals who believe they must be consistent with gender roles (i.e. conform to the social definitions of masculinity and femininity) base their self-esteem on the approval of others and exhibit lowered sexual autonomy and satisfaction.

Past SDT research has demonstrated that when individuals find themselves immersed in images/scenes of natural settings (as opposed to scenes containing human-made environments) they exhibit enhanced valuations of intrinsic aspirations (and enhanced devaluations of extrinsic aspirations) because such settings create a heightened sense of autonomy and relatedness with nature (Weinstein, Przybylski and Ryan, 2009).

The findings of the aforementioned research taken together show that sexual imagery in advertising can affect the motivational responses of individuals negatively especially if they are more control-oriented and base their self-esteem on the approval of others. The results underline, how different stimuli (nature scenes versus human made environments and sexual stimuli) may lead to different motivational responses in the premises of SDT theory. These results show that interpersonal communication, especially organisational communication, pressures people to behave in a specific way (Moller, Ryan and Deci, 2006). Taken together, it is possible to understand the importance of the different forms of regulation, aspirations and individuals' orientations regarding individuals' motivational responses depending upon the type of the stimuli.

The present research project assumes that although sexual advertising imagery/appeals may not contain explicitly directive or authoritarian communications they influence people's motivational processes by construing extremely ego-involving images to which people have to adhere if they are to operate within the boundaries of modern society. Following Pollay's (1986) critique, by using SDT the present project aims to assess the unintentional consequences of sexual appeals in advertising on life aspirations (intrinsic versus extrinsic), individual autonomy and psychological markers of well-being, such as state self-esteem and body (dis)satisfaction.

3.4. A Critique of Self-Determination Theory

SDT (Deci and Ryan, 2000) assumes three crucial axioms upon which motivation is predicated. The first is that there are three fundamental, innate and universal psychological human needs, namely Autonomy, Competence and Relatedness. The second as aforementioned (section 3.1, p. 29) that individuals are: "active, growth oriented organisms who are naturally inclined toward integration of their psychic elements into a unified sense of self and integration of themselves into larger social structures" (Deci and Ryan, 2000: 229). The third is that the highest quality of motivation comes from intrinsic motivation which is a type of intrinsic motivation that is a motivation that locates itself as close to the true self of the individual as possible.

These three axiomatic positions of SDT have been criticised. The following paragraphs discuss the issues that arise from a closer consideration of these positions and the possible ideological positions they might represent.

Deci and Ryan (2000) build an effective argumentation as to why their conceptualisation of needs differs from previous conceptualisations such as drive theories (Hull, 1943) and personality theories (Maslow, 1943), however the reality of need innateness and universality as well as the reality of need specification (why these needs and not others) remains uncertain (Vallerand, 2000). Buunk and Nauta (2000) suggest that more traditional frameworks as Herzberg's (Herzberg, 1966) may function as better predictors of motivational needs than SDT. The nature of the three fundamental needs merits further discussion. A close reading of Deci and Ryan (2000) allows understanding that the three needs although all important are not necessarily equal in terms of importance. Autonomy features pre-eminently as the most core need related to the development of essential intrinsic motivation, then competence and then relatedness. Autonomy is related to volitional choice, the ability to freely choose and determine one's actions on the basis of one's own motivation, in adherence to individual internal standards that are integrated, hopefully natural to the self (Andersen, Chen and Carter, 2000). Autonomy³ is core to SDT since its environmental support helps individuals build the necessary intrinsic motivation to act. Intrinsic motivation stands at the core of SDT as the only truly self determined motivation as opposed to internalised external influences that do not reflect the true self (see continuum of motivation p. 31). Carver and Scheier (2000) object to the idea that an autonomous functioning of the self seeks not only to behave in a self-determined manner but also to integrate extrinsic motivations to behaviour. Carver and Scheier (2000:284) question the true nature of autonomy by questioning whether "true independence of action ever really exists". According to Carver and Scheier (2000) among SDT's propositions it is not clear whether the assumption is that people are and can behave truly autonomous but whether they need to feel autonomous. Carver and Scheier (2000) criticise this emphasis on autonomous functioning to Western cultural bias whereby the desire for autonomy and autonomous functioning is not necessarily universal. This aspect of a cross-cultural generalised Western cultural bias is prominent throughout the critique of SDT (see the following paragraphs). The preeminent importance of Autonomy as a need that is necessary to create intrinsic motivation is also questioned especially in opposition to the distal role of relatedness.

³ It is important to distinguish between the idea of Autonomy as 'freely' choosing to act and freedom as the state of being at liberty rather than in confinement or under physical or otherwise notional restraint. Autonomy and freedom or liberty are not the same concepts and in fact one could postulate that at least as SDT is concerned an individual who is at least under physical constraint or in confinement can still act autonomously albeit indeed in a restrictive manner.

Andersen, Chen and Carter (2000) as part of their social – cognitive model suggest first of all the relatedness should have a more key role in the development of SDT and second that the need for meaning and the need for security and safety further characterises humans. Andersen, Chen and Carter's (2000) model brings to forth the interdependent nature of the self (analysed below) and by doing so elevates the need of relatedness (otherwise known as belongingness, attachment, communion, intimacy, etc.) to a core motivational construct. Indeed, in SDT relatedness plays a more distal role (Deci and Ryan, 2000: 235) in motivating intrinsic behaviours and this fact has been heavily criticised. Buunk and Nauta (2000) suggest that compared to autonomy and competence relatedness has much more clear evolutionary bases and should therefore be much more crucial in explaining motivation, especially so since it is possible that the simultaneous functioning of both Autonomy and Relatedness might not be feasible as in case whereby one individual's motivation for self-determined, autonomous action conflicts another individual's self-determined, autonomous functioning. Coleman (2000) suggests that in older individuals the satisfaction of the need for relatedness becomes crucial even more so because there are objective autonomy and competence restrictions imposed on older people functioning by their biological deterioration while at the same time changing social roles allow older people to relate to others in a different way (e.g. by gaining prestige and honour). Therefore changes in relatedness satisfaction may allow older people to compensate their biological deterioration. Finally, Sansone and Smith (2000) note that for individuals who approach activities with interpersonal goals (i.e. individuals approach a certain goal with the expressed interest to connect interpersonally with other individuals) relatedness is crucial in the experience of intrinsic motivation.

The assumption on part of SDT of an active, growth oriented organism assumes in essence that the individual's self has an agentic nature, a nature that is which actively and energetically seeks to adapt, to engage in interesting activities, exercise capacities and pursue connectedness (Deci and Ryan , 2000: 229). As intrinsic motivation points to self-caused behaviours as opposed to controlled / integrated extrinsic motivation that points to other caused behaviours (autonomous vs. heteronomous); being self determined suggests that the individual is the causal agent of her/his life (Wehmeyer⁴, 2004). Bauer and McAdams (2000) note how the needs of autonomy and competence overlap with the

⁴ Wehmeyer (2004) proposes that moving beyond Self-Determination theorists should establish causal agency as a macro-level framework that may drive the development of understanding the reality of acting in a self-determined manner as opposed to understanding the concept of self-determination since said concept has too many multiple interpretations across different disciplinary contexts.

descriptions of agentic themes found in individual's life stories. That is why then Deci and Ryan (1995) assert that human agency is the source of true self-esteem.

SDT's organismic dialectic allows the construal of the self as an agentic integrator of environmental stimuli to act as a protective condition a buffer of causality between completely controlled / extrinsically motivated behaviours and volitionally internal / completely intrinsic behaviours. Such a conception of an agentic construal of self whereby an individual to experience well-being needs to engage in purely intrinsic behaviours discounts different formations of self construals that emanate from a more social functioning. Andersen, Chen and Carter (2000:270) propose "a social-cognitive model of the self in which the self is fundamentally interpersonal, bound up with the significant others that predominate in people's lives". Such a social self construal is markedly different from SDT and questions the nature and source of the 'true' self that acts as the source of intrinsic motivation. Markus and Kitayama (1991) offer further evidence of different construals of the self specifically between different national cultures (American vs. Japanese). Markus and Kitayama (1991) criticise the "so-called Western view of the individual as an independent, self-contained, autonomous entity" and show that cultural differences may clearly account for construals of the self as interdependent to the other. Similarly, Buunk and Nauta (2000) criticise SDT in-depth for paying too little attention on the social context of individual behaviour and even more so the social nature of human behaviour. Buunk and Nauta's (2000) arises from the fact that human evolved as groups and therefore social animals and the highly intraindividual nature of human functioning proposed by SDT does not account for the inadvertently social nature of needs and motivation.

However in the premises of SDT the actual construal of the self is not a-contextual, that is independent of socio-historico-cultural circumstances, but the agentic nature of a self that seeks to integrate external influences is. In this process of integration the degree of autonomy and intrinsic motivation offered to the self from environmental conditions is key and its expression is always contextual. Buunk and Nauta (2000) explicitly criticise SDT for its ideological basis of supporting the idea of intrinsic motivation of behaviour as a crucial ingredient in well-being as a Western elitist anti-consumerist and anti-capitalist argument since only a very small number of people in Western 'capitalistic' societies are able to do intrinsically motivated work as opposed to the rest of the world where survival and extrinsic motivations dominate people's motivations for life. In contrast, Devine, Camfield and Gough (2008) show for example how in a cultural context described by

relational values and extremely low material life standards (Bangladesh) autonomy can actually coexist with substantial and even power imbalanced relationships of dependence.

One final issue with SDT is the issue of defining the 'true' self. Intrinsic motivation and its experience elevate the issue of the 'true' self in the forefront. Carver and Scheier (2000) question on whether we can know true self and Andersen, Chen and Carter (2000), Buunk and Nauta (2000) definitely seem to be suggesting that given the importance of interdependent functioning of the self the 'true' self is rather hard to make out. Pyszczynski, Greenberg and Solomon (2000) question SDT's assumption that the humanistic and organismic assumption of growth as too idealistic. Carver and Scheier (2000:290) assert that it is possible that the 'true' self of certain people may as well be a self that is 'exploitive, unconnected, and entitled; inimical to society, but supportive and protective of its own autonomous well-being'. Similarly Pyszczynski, Greenberg and Solomon (2000) note that satisfaction of individuals' needs in the boundaries of society may very well cause conflicts between individuals trying to satisfying their needs in opposing courts. However as Ryan and Deci (2000b) note it is exactly in these conflict situations that SDT is useful in explaining and illuminating the way in which the social world is often structured to pit need satisfaction against need satisfaction and the satisfaction of the needs of an individual over another's.

CHAPTER 4

4. BRIDGING THEORY AND RESEARCH

4.1. *Overview of the Present Studies*

Taken together a number of studies have investigated separately the different effects that sexual imagery in advertising may have on individuals. Previous research solely focuses on singular effects of sexual imagery either on the level of beauty ideals or on the level of arousal effects which mainly have to do with arousal of particular brain regions. However sexual imagery in advertising does not affect individuals in a singular manner. While sexual imagery in advertising embodies beauty ideals that, as Kilbourne (2005) notes, define what is to be considered sexy or beautiful and more importantly who is sexy and beautiful, at the same time gratuitous nudity works to arouse the brain and pose individuals in an aroused mate seeking/hunting mode that, for example forces males to adopt a psychological profile of high status men (Roney, 2003).

To date none of these studies has attempted to examine these differing effects side by side. Moreover, most studies tend to focus on single gender studies. Based on these findings the present project proposes that when individual male and female consumers are exposed to sexual imagery in advertising, they will exhibit an array of negative states in an array of outcome variables. The project expects both males and females exposed to the stimuli to adopt a mating profile and therefore be susceptible to extrinsic aspirations such as fame, wealth and image. In a similar manner both males and females are expected to suffer from lowered self-esteem and heightened body dissatisfaction while experiencing reduced satisfaction of their basic needs and externally regulated motivation for consumption.

4.2. *Gaps and Questions*

Marketing executives working in communication agencies and market research firms are divided about the ability of sexual imagery to attract the attention of consumers, especially young 21st century millennials (Beale, 2004). Seckler (2005) provides industry quotes which show that even marketing executives working in the same markets are

divided regarding using sexual imagery. Seckler (2005) notes that marketing executives waver between using subtle sexuality insinuations closely related with the company's brand values and using even more outrageous imagery including direct portrayals of sexuality in order to captivate the attention of a technologically savvy and continuously multitasking generation without questioning possible negative consequences for individuals or the society.

All of the above taken together, the present project identifies that in examining the effects of sexual imagery in advertising cross – disciplinary research that explicitly addresses the unintentional psychological/motivational consequences of sexual imagery is missing. All research in the consumer research perspective focuses almost exclusively at the level of marketing output. In all the studies reviewed, participants were asked to self-report their attitude toward the ads or the brand to test relevant hypotheses (e.g. Severn, Belch and Belch, 1990; Baker and Churchill, 1977). Such surveys do not address the specific motivational mechanisms that delineate the association between stimuli and behaviour. On the other hand, with the exception of Van Den Bergh, Dewitte, and Warlop (2008) all studies in the general domain of how sexual stimuli affects human behaviour, experiment mainly in fields outside of the marketing domain and do not look at the potential effect their results might have on marketing knowledge.

The literature reviewed demonstrates how exposure to sexual imagery stimulates the brain's reward centres (Hamman, Herman, Nolan and Wallen, 2004) making them crave anything rewarding (Van Den Bergh, Dewitte and Warlop, 2008) and making them prefer smaller, more immediate rewards even if these rewards are considered unfair (Wilson and Daly, 2004; Van de Bergh and Dewitte, 2006; Van de Bergh, Dewitte and Warlop, 2008). The literature shows that individuals exposed to sexual stimuli are more prone to engage in risky behaviours, especially if they exhibit a controlled orientation (Ariely and Loewenstein, 2006; Lewis, Neighbors and Malheim, 2006). Thus, sexual stimuli seem to make people more prone to controlling, externally regulated behaviours and have a strong, direct effect on multiple human motivational processes. Roney (2003) reports that males primed for opposite mate attraction (as sexual stimuli in an advertisement does) adopted a psychological profile of high status men, pertaining specifically to the attainment of material wealth, ambition, aggression and extraversion. Thus, in a market abundant with sexual imagery, males exposed to sexual imagery are more prone (or for that matter are unconsciously primed) to uphold extrinsic aspirations

for their life something that may lead to reduced well-being and mental health (Kasser and Ryan, 1993; 1996).

4.3. Objectives and Hypotheses

The objective of the project is as follows:

1. Explore the unintentional consequences that exposure to sexual appeals in advertising has on consumers' motivational processes and self-determination.

Particular hypotheses that break down the objective in operationalised measurements follow:

H1: When consumers are exposed to increasing levels of sexual imagery in terms of nudity they will exhibit enhanced Extrinsic Life Aspirations uniformly across conditions and / or diminished Intrinsic Life Aspirations uniformly across conditions.

H2: When consumers are exposed to increasing levels of sexual imagery in terms of nudity they will exhibit an enhanced controlled motivation for consuming goods and services and / or a diminished autonomous motivation for consuming goods and services across conditions.

H3: When consumers are exposed to increasing levels of sexual imagery in terms of nudity they will exhibit diminished levels of satisfaction with their basic needs a) Autonomy, b) Competence and c) Relatedness across conditions.

H4: When consumers are exposed to increasing levels of sexual imagery in terms of nudity they will exhibit lowered State Self-Esteem across conditions.

H5: When consumers are exposed to increasing levels of sexual imagery in terms of nudity they will exhibit heightened Body-Dissatisfaction/lowered Body Satisfaction across conditions.

CHAPTER 5

5. EPISTEMOLOGICAL CONSIDERATIONS

The following section outlines certain considerations with regards to the underlying epistemological assumptions of the PhD study.

The present PhD study adopts a positivistic/post-positivistic⁵ epistemological model. The employed theory stemming from Social Psychology is tested upon a designated sample via experiments. The approach is a straightforward theory-driven hypothetico-deductive investigation of whether the particular hypotheses presented in the earlier section and developed out of the relevant theory may be corroborated or falsified after the execution of the experiments.

5.1. Experiments in Social Sciences

Lab experiments⁶ are chosen in the present project as a preferred methodological framework of investigation because: a) they are a preferred method of choice in the socio-psychological domain and b) lab experiments serve as the strongest base for discerning any salient effects that sexual imagery has on consumer motivation.

The proposed project is trying to capture the specific or isolate effects of sexual imagery (taken as a type of specific stimulus) on consumer motivation. Experiments are generally a preferred method when choosing to investigate the specific effects of a particular stimulus on human behaviour. As Venkatesan (1967) notes, the basic difference between experimental and non-experimental methods is the degree of control, as such a laboratory environment supposedly provides maximum control of extraneous (to the research) variables. This means that differences in the responses of the participants are due to the manipulation of the experimental variable(s) (Venkatesan, 1967).

⁵ The post-positivistic view comes from the recognition of the potential issues with the psychometric model of measurement and issues that arise from experimentation.

⁶ It is interesting to note here that, in historical terms, although N.W. Ayer and Son (in 1879) were the first to run a survey research in order to answer a marketing problem, the first experiments to be conducted in Marketing were done by Harlow Gale (in 1895), a professor of Psychology at Minnesota University when trying to investigate advertising effectiveness. After conducting the experiments Harlow published a monograph in 1900 titled "On the Psychology of Advertising" (Stewart, 2010). After Harlow, other academics followed such as Walter Dill Scott (again a professor of Psychology) who ran experiments and published his book titled "The Psychology of Advertising in Theory and Practice" (Stewart, 2010). In this sense one could claim that experiments in Marketing have a long tradition comparable to any other type of research. Finally, experiments have been extensively used in marketing applications of specific models such as choice modelling and conjoint experiments.

An assumption behind experiments has already been mentioned (i.e. experiments supposedly provide full control of extraneous variables). This is probably the most basic assumption behind laboratory experiments: that laboratory experiments allow the researcher to control the effect of all non-investigated variables and isolate the effect of the variable under investigation. On these premises, laboratory experiments can claim causal effects (as opposed to simply reporting on the existence or not of correlations) between the variable under investigation and the experimental outcome.

In their most comprehensive paper published in *Science Journal*, Falk and Heckman (2009) outline and refute a large part of the criticisms targeted to experiments in social science. Some of the main criticisms against experiments in social science are: a) that almost in all occasions student samples are used, b) sample sizes are small (and therefore do not conform to the statistical rules about inference to the general population), c) that they produce unrealistic data since they lack resemblance with the real world, d) that they do not distinguish between experienced and not experienced participants, f) that participants behave differently because they are observed (also named the experimenter bias or effect), and g) the fact that essentially in all experiments participation is somewhat voluntary although incentivised and as such participants can more easily self-select themselves (Falk and Heckman, 2009).

As Falk and Heckman (2009: 535) note 'controlled variation is the foundation of empirical scientific knowledge. The laboratory allows tight control of decision environments.' In their article they offer an illustration of how laboratory experiments helped illuminate factors that affect gift exchange in employment relationships. Marketing (and especially advertising) experiments have not only illuminated the factors that underline marketing actions' effectiveness but have also put forth strong theoretical conceptualisations that are still largely used today (e.g. Petty, Cacioppo, and Schumann, 1983).

However as Falk and Heckman (2009: 536) note, the question is not so much if you should use experiments or field data, for example, but which method better serves to 'isolate the causal effect of interest'. And this provides us with a very important methodological choice precipice⁷. As Falk and Heckman (2009) suggest, for an outcome

⁷ As Falk and Heckman (2009) note the question of usefulness of specific methods and data does not come from the comparison of different methods between them just for the sake of comparison, but by answering the question which method better answers the research question under investigation. Of course such a decision inevitably contains a large degree of subjectivity on the part of the researcher and his/her methods of choice and that is why in reality any issue should be researched using multiple methods that illuminate different aspects, although not necessarily by the same researcher. In every case lab experiments are more than important when one needs a tight control of the independent variables, as is the case when controlling for the effects of a specified stimulus.

of interest (dependent variable) there is always a list of determinants (independent variables). If the researcher carefully acknowledges which determinants s/he has used and therefore voices his/her results in the boundaries of these determinants the experiments' results can be both clear and informative. The ability to isolate the effect of one determinant holding constant another set of determinants is the key issue here (Falk and Heckman, 2009)⁸.

5.2. Measuring Psychological Constructs

The measured independent and dependent variables (Mood, General Causality Orientations, Contingent Self Esteem, Sexual Liberalism, Life Aspirations, Situational Motivation for Consumption, State Self-Esteem, Body (Dis)satisfaction and Basic Needs) as questionnaires are considered to be measures⁹ of the underlying psychological constructs their titles refer to. In that sense all multi-item scales included in the literature and used in the present project are essentially psychometric scales, or scales that purportedly measure the underlying construct(s) they refer to.

According to Michell (1997) in order to measure an attribute¹⁰ two steps need to be taken: a) first one has to establish that the attribute of notice is indeed a quantitative (and in that sense a measurable) attribute¹¹ and b) one has to construct the proper procedures for numerically estimating the magnitude of the quantity of the attribute. Furthermore, Michell (1997) suggests that in their effort to establish a scientific status for the field of psychology, psychometrics, or applied/quantitative psychology, have been overly concerned with the second step rather than trying to prove that the actual attributes that the different scales claim to measure are actually measurable, which is something that is nearly always taken for granted after the formal propositions of Fechner regarding measurement in psychology.

⁸ Falk and Heckman (2009) spend a considerable portion of their article refuting several of the weaknesses of the experiments outlined above. Nevertheless, the present section does not go into detail on why these weaknesses do not necessarily hold or how they can be avoided. Instead the researcher focuses his discussion around the basic experimental assumption and by identifying the various criticisms and strengths he also accepts that possible refutations of these weaknesses or strengths can be voiced. The interested reader is also directed to the article by Venkatesan (1967) discussing the experimenter effect/bias, to McQuarrie (2004) for the issue of validity in marketing experiments and to Hedges (1987) for the discussion around the cumulativeness of experimental results in the social versus the natural sciences.

⁹ It is extremely interesting to note that although for the marketing side the terms measures and measurement are used directly (e.g. Zaichkowsky, 1985) for SDT questionnaires the questionnaires are described under the measures section of the relevant papers but they are not said to measure the participants' Aspirations but rather purport to assess them.

¹⁰ Actually, Michell (1997) in his paper speaks for establishing a quantitative science i.e. a science that develops quantitative theories and measures the attributes involved.

¹¹ For Michell (1997), this means, first of all, that the attribute possesses a distinctive internal structure (viz. a quantitative structure) and secondly that if the specific attribute is to be characterised as a quantity i.e. an attribute with a proven quantitative structure, it needs to follow Hoelder's set of axioms in defining a continuous quantity.

As much as Michell's (1997) article is useful in pinpointing several weaknesses to the concept of measurement in psychology and the attitude developed regarding measurement on the part of the psychological community, his arguments do not refute the fact that the psychological concepts may indeed be measurable. Furthermore, as critical reception to his article points out (Lovie, 1997; Laming, 1997) his critique of the attitude exhibited by psychologists regarding measurement as a type of "methodological thought disorder" is unnecessarily fierce, and since much of the psychological data comes from participants' recording of their subjective judgements about stimuli (i.e. its nature is categorical or rank order) one should examine how measurement theory can treat these data rather than completely refute their scientific validity. Finally, the researcher notes that since Michell (1997) is not refuting that psychological attributes may well be quantitative and measurable, the practice of taking this premise for granted without any empirical evidence constructing a supposed measure, the problem therefore does not lie with an attempt to measure a psychological construct but rather lies with failing to strongly justify that the said psychological construct can actually be measured. The researcher proposes that the problem resides not with trying to measure a psychological construct using some kind of scale (therefore also a numerical representation) but with the uncritical effort to operationalise every construct that one comes across in order to ease the production of numerical data prone to mathematical (e.g. statistical) handling and manipulation ability, therefore creating the illusion of science. As Michell (1997) notes in his article, if a particular measure A is useful for predicting some outcome, say X, this by itself is not applied science. If instead one theorises that A measures the theoretical concept I, and I is in turn the cause of X, then this constitutes a respectable way to theorise which, whilst also involving both the empirical work in corroborating or falsifying the proposed relationship, as well as the empirical work to test the hypothesis that I is measurable.

Current conventions would suggest that common scientific practice often appeases itself by dealing with issues of validity and reliability skin-deep, and only according to the premises of standardised statistical testing. Nevertheless, despite clearly highlighting these assumptions and weaknesses psychometric measurement still remains the best proxy there is for coding human behaviour in numerical terms and delineating its patterns through mathematical computations.

Other possible weaknesses that exist with measuring psychological constructs are:
a) that most psychometric scales are self-report scales (i.e. scales that ask participants to

report how their self judgements regarding a specific stimulus as opposing to actually measuring their observed behaviour); b) on certain occasions participants tend to answer what they think is expected of them to answer (the so called social response bias) (King and Bruner, 2000); and c) that when the researcher employs scales all measured in the same manner (e.g. when they are all Likert-type scales as opposed to a mix between Likert-type and semantic differential) statistical analyses of such scales may yield inflated results (the so called common method bias) (Doty and Click, 1998).

CHAPTER 6

6. STUDY 1: UK SAMPLE

6.1. Method

6.1.1. Design

The present study employed a between-subjects pre- and post-test quasi-experimental 2x4 full factorial design. The independent (between subjects) variables were sexual imagery levels in advertisements (three levels of nudity: Nude, Semi-Nude and Clothed, including a control group with product only advertisements) and gender (male, female), in essence creating eight conditions. The pre-test questionnaire measured a range of individual differences variables that were used as possible covariates (boundary variables) to the experimental conditions and to exclude possible confounding factors that could affect responses to the outcome variables and therefore account for possible variation. The individual differences measured were: Mood (Peterson and Sauber, 1983), General Causality Orientations (Deci and Ryan, 1985b), Contingent Self Esteem (Paradise, 2001), The Multidimensional Measure of Comfort with Sexuality Short Form (Tromovitch, 2000) and the Attitudes Toward Sexuality Scale (Fisher and Hall, 1988). The measured outcome variables were Life Aspirations (21 composite variables) (Kasser and Ryan 1993; 1996), Situational Motivation for consumption (four composite variables) (SIMS: Guay, Vallerand and Blanchard, 2000), State Self Esteem (four composite variables) (Heatherton and Polivy, 1991), Body Image State Dissatisfaction (one composite variable) (Cash, Fleming, Alindogan, Steadman and Whitehead, 2002) and Basic Needs Satisfaction (three composite variables) (Deci and Ryan, 2000).

6.1.2. Participants¹²

The sample (see Table 1 for the summary statistics of the demographic variables) is composed of 166 male and female undergraduate University students (n=69 and n=98

¹² The document interchanges between the word participants and respondents to denote the exact same thing that is the subjects that took part in the experiments. Respondents are used mainly in the data analysis section to underline the fact that the relevant sections describe participant responses.

respectively) with a mean age of 19.80 years (s.d. = 1.10). The majority of the sample was born in the United Kingdom (n=146), followed by India (n=10), Ghana and South Africa (n=2 respectively), Bulgaria, China, Hong Kong, Iran, Jordan, Nigeria and Serbia (n=1 respectively). All participants were raised in the United Kingdom. The participants were recruited from a variety of schools and departments across the University, following a University-wide invitation to participate as described below. The majority of the participants were in their second year of study (n=69) closely followed by first year students (n=57) and third year students (n=41). Participants also reported on their religion with the majority reporting a Christian affiliation (n=74), followed directly by no religious affiliation (n=73), Hinduism (n=15), Islam (n=3), and Judaism (n=2). Most of the participants also reported that despite their familial religious affiliation they did not any more practice their religion (n=136); from the remaining participants who still practiced their religious affiliation (n=31) the majority attended religious service 1-5 times a year (n=14) followed by 6-12 times a year, 2-3 times a month, once a week (n=5 respectively) and more than once a week (n=2). Note here that from the participants who reported no religious practice 38 reported attending religious services 1-5 times a year and 6 reported attending religious services 6-12 times a year. The researcher through the debriefing process and through observations during the execution of the experiments was able to substantiate that the participants who reported attendance but no practice did so occasionally since they would accompany a family member or partner to religious services mainly under the auspices of popular public celebrations such as Christmas and Easter for those affiliated with Christianity and similar celebrations for those affiliated with other faiths. Finally, the participants reported their term postcode. As expected all of the participants lived in close proximity of the University Campuses.

All participants were recruited through a generalised University-wide invitation for participation in the study (please see Appendix 3 for the email invitation). In order to isolate UK-raised participants, the e-mail invitation only asked for participants that were either born and raised in the UK or at least raised in the UK since childhood (at least 10 years UK domicile). Participants were invited to take part in the study through the internal e-mailing system of the University and were then asked to individually book their preferred date and time using the University's virtual learning environment (moodle). In order for the participants to be able to do that, a mock module was created and participants had the opportunity to register for their preferred date and time following procedures similar to those used for booking tutorial places in normal taught modules. All participants responded positively to the system and all places were booked up early. All

participants were reimbursed for their participation in the study with a flat reward of £10 for approximately one hour or as long as participants needed to complete the experimental tasks. In order to minimise a self-selection bias based on pre-existing concerns regarding exposure to sexual imagery as well as regarding completing questionnaires on body dissatisfaction and self-esteem, the present study was advertised as a study on 'Memory and Advertising' designed to investigate the interaction of consumers with a given set of advertisements for a variety of products (see Procedure below for more details on the recruitment process).

Table 1: Study 1 Sample's Socio-demographic Profile, %, N=166.

Gender				
Male	Female			
41.6	58.4			
Age				
18	19	20	21	<=22
7.8	38.0	31.3	13.3	9.6
Year of Study				
1 st	2nd	3 rd		
34.3	41.6	24.1		
Religion they were brought up into				
<i>Christianity</i>	Hinduism	Islam	Judaism	None
44.6	9	1.8	1.2	43.4
Whether they practice their religion				
No	Yes			
81.3	18.7			
How often do they attend religious services				
Never	1-5 times a year	6-12 times a year	2-3 times a month	Once a week or more
54.8	31.3	6.6	3.0	4.2

6.1.3. Experimental Stimuli

As aforementioned the study employed a 2x4 between the subjects design with independent variables being the sexual imagery levels and gender as well as individual differences covariates. Thus, eight different advertising booklets were created, with each to be delivered to the relevant audience (namely: Male-Nude, Male-Semi-Nude, Male-Clothed, Female-Nude, Female-Semi-Nude, Female-Clothed and Product only booklets). Each booklet featured a total of 16 advertisements (eight in the case of the Product only condition) for a variety of products. Following previously recorded experiments in the literature (see for example Baker and Churchill, 1977; Peterson and Kerin 1979) a set of full A4 page colour mock ads were designed expressly for the experiment through the use of researcher-created copy, photographs of western type (mostly white) models in varying stages of undress (purchased online from depositphotos.com) and English-language brand names that the researcher found available in countries outside the UK or in

previous research papers (see for example the aforementioned papers). The researcher took special precautions to make sure that the stimuli satisfied both the need for non-confounding effects as well as the need to look as closely as possible like real life advertisements. The nudity levels in the advertisements mimicked nudity levels in real life ads and were expressly compared to a database of approximately 1000 ads utilising sexual imagery since the beginning of the twentieth century, and created by the researcher for the sole purpose of the study. In the full nude condition, mirroring real life advertisements, special care was taken to avoid full frontal nudity so as not to confuse the ads with soft-core or otherwise pornography. In comparison to previous research (see for example Dittmar and Howard, 2004; Hietanen and Nummenmaa, 2011) the researcher did not have the ability to use the exact same models throughout the different stages of undress (where that option was available the same models were used), therefore in order to minimise personal preferences for particular models and attractiveness the researcher initially chose a set of pictures he considered equivalent and then employed two independent judges (one academic and one professional graphics designer with prior experience working with print advertisements) to validate the equivalency of the pictures. Further to this procedure the models used included models with black, blonde and brunette hair so as to cover most possible appearances. All advertisements in the sexual imagery conditions featured stereotypical images of beautiful, slim/muscular female and male models as well as couples who exemplified the societal, or for that matter commercial standards, for female and male attractiveness as portrayed in real life advertisements (Heinberg and Thompson, 1995).

In order to avoid confounding effects and to keep the participants attention on the actual advertising imagery as opposed to the brand or the copy, all the brand names chosen were as simple as possible as was the relevant copy. In order to increase the efficacy and salience of the stimuli, special attention was paid to the choice of the copy and the products as well as the models. Previous research (Tinkham and Reid, 1988; Richmond and Hartman, 1982; Courtney and Whipple, 1983; Baker and Churchill, 1977) has shown that the effectiveness of the ads improves when the product is either sexually relevant or when the sexual imagery (and the ad itself) is congruent with the nature of the product. Thus, the researcher after carefully reviewing the literature and the 1000 ads in the research database decided to use two perfume brands, two jeans brands, two watch brands, one vodka brand and one whiskey brand. Since the focus of the study is not investigating marketing effects such as advertising effectiveness, using advertisements that would maximise potential marketing effects and therefore the

saliency and intensity of other non-marketing – unintentional – effects made sense as a conscious part of the design process. The copy was designed to be as simple as possible (single line) and as relevant to allusions of sexuality as possible depending on the particular product. Following Lass and Hart's (2004) explications of consumer perceptions regarding sexual imagery the researcher decided to utilise both couples and single model advertisements since previous research shows that mainly women but also men perceived advertisements utilising couples as equally attractive if not more. Finally, the advertisements were designed on plain white or black backgrounds in order to avoid any possible confounding effects (Steadman, 1969). All booklets were created in a manner to replicate naturalistic viewing of print magazine advertisements. (Please see Appendix 9 for the different advertising booklets of each condition).

6.1.4. Procedure

As aforementioned in the participants' description section, participants were invited to participate in the study through a University-wide generalised email and the use of the University's virtual learning environment. Since no laboratory was available in Nottingham University Business School the participants were gathered in selected teaching rooms in the Business School where the experiment took place. Participants were provided with all the necessary material to complete the questionnaires including an information and consent form, the experimental stimuli, the relevant questionnaire, a debriefing form and a pen.

According to common research etiquette and in order to minimise social desirability response bias, as well as possible cross-contamination effects between participants, the participants were seated with at least one empty seat in between them in the same line of desks and at least one empty line in between them at different lines of desks. Initially participants were welcomed by the researcher and the purpose of the experiment was then explained as well as the different tasks that they would have to complete. As aforementioned, in order to minimise self-selection based on pre-existing concerns regarding exposure to sexual imagery all participants were treated under the guise that they were participating in a study on 'Memory and Advertising'. After the welcome participants were instructed that in order to move to the first task of the experiment they would have to sign and date the information and consent form. Two copies of the information and consent form were given, one for the participants to take away with them and one to sign and date for the research purposes. The information and consent forms

were then collected by the researcher and set aside in a separate pile from the questionnaires. The researcher made clear that the signing of information and consent forms was related to the processes of ensuring appropriate ethics at Nottingham University Business School and was merely an administrative formality that was not at all related to the rest of the data collection process. Effort was made to ensure that all participants felt safe and understood that the completion of the questionnaires was completely anonymous and all data would be analysed at the aggregate level, therefore no individual would be targeted. After the collection of the information and consent forms the participants were given an initial questionnaire that gathered the individual differences variables pre-exposure to the experimental stimuli. Average completion time of the individual differences questionnaires was approximately ten minutes; after participants were randomly assigned to view one of the eight advertising stimuli (booklets) always separating between males and females so that each participant received a booklet that was relevant to their gender. Once given the advertising stimuli the participants were asked to spend some time looking through the ads and browsing through them as they would the pages of a magazine. They were also instructed to pay attention to and interact with the advertisements as attentively as they could since they would be queried on the booklets' contents later. The researcher timed the task so that each student spent ten minutes with the advertising stimuli. Once participants finished browsing the advertising stimuli they were then given a memory retention and cognition/affect generation exercise where they were asked first to write down all thoughts they had regarding the images contained in the advertisements they just browsed and second to write down all thoughts they had regarding themselves as a result of exposure to the advertisements (see further Edell and Keller 1989; Shiv, Edell, and Payne 1997). Following the thought listing task participants completed a questionnaire containing the dependent measures as well as their demographic information. At the end of the experiment participants were thanked for their participation, were asked to sign the reimbursement form to receive the £10 reward for their participation (again the form was kept separately from the rest of the questionnaires) and were debriefed and queried on their possible suspicions as to the real goal of the study. No participants suspected the hypotheses being tested.

In order to further minimise social desirability response bias as well as possible experimenter effects, the researcher remained for the duration of the study outside the room in a neighbouring space¹³. The researcher made clear to the participants that should

¹³ Since there was no laboratory setting available in the Business School to run the experiments the researcher spent a lot of time during the experiments sitting in corridor corners and outside the selected rooms where the experiments took place.

the need arise they could find him directly outside the room. In most cases due to the relatively straightforward nature of the experiment the resurfacing of the researcher every now and again to provide participants with the new material as needed was enough and most of the participants remained seated during the whole process.

6.2. Pilot Study

Part of the experimental procedure was the execution of a pilot study prior to the roll out of the main study to investigate possible comprehension issues with the questionnaire, the timing of the whole experimental process, and participant reactions regarding the advertising stimuli. For that purpose 54 master's students and doctoral candidates were recruited to complete the experiments while commenting on anything they thought could be improved and should change.

The pilot study was an invaluable part of the experimental process. Typographical errors were corrected and the experiment was timed to ensure timely completion. There were no generalised comprehension issues and all questions were considered straightforward and non-threatening. However, two things that were observed during the pilot study are worth noting here. First, from the pilot to the main study the wording of the memory retention exercise was slightly changed. Initially the wording of the memory retention exercise asked the participants to list their thoughts as a result of browsing through the advertisements. The researcher observed sooner rather than later that this wording prompted the participants to focus too much not on the imagery but on the actual advertisements as a whole and direct their thoughts on issues of design and effectiveness of the advertisements. Following this observation the wording was changed to explicitly ask the participants to record their thoughts regarding the images portrayed in the advertisements. Second, a proportion of the pilot study participants – females in their majority – when exposed to the nude and semi-nude conditions felt uncomfortable when seated between male participants. Therefore for the main study the rooms were separated in two sections with one section reserved for females and one section reserved for males.

During that time a lot of University colleagues started enquiring about the purpose for the researcher lurking in the corridors. Some of the most interesting comments involved the seamless execution of corridor studies, whether the researcher had been naughty, whether he was spying on other employees, whether he actually had an office in the University and if so whether he found his office so boring that he preferred the corridor. In all cases, the researcher tried to appease his colleagues to the best of his abilities.

Following the successful execution of the pilot study and after all the necessary changes the research moved forward with the main study as described above.

6.3. Constructs and Measures

The following paragraphs discuss the types of measures and their relevant assessed reliability in the pre- and post-test questionnaires.

The pre-test questionnaire included a range of individual differences variables and the post-test questionnaire contained the dependent measures as well as the manipulation check questions.

The researcher spent a significant amount of time making sure that the measures used would best serve the experimental purposes in capturing the mechanisms under question.

The pre-test individual differences variables were chosen to account for possible confounding factors that could influence the results of the experiments and covariate variables that could potentially serve as mediating and moderating concepts helping further explain the responses on the dependent-outcome variables. Reichert, LaTour and Ford (2011) showed that including such individual differences variables in experiments designed to investigate the impact of sexual imagery in advertising on consumers can provide valuable insights and explanatory power in the relevant regressions.

All pre-test questionnaire variables covered a range of individual level variables either in terms of transient affective states such as Mood or personality traits type variables such General Causality Orientation or general level attitudes such as Attitudes towards Sexuality.

Regarding the post-test dependant/outcome variables a detailed examination of alternative measures was undertaken in order to ensure that these measures could indeed capture the results of the experimental study. The researcher decided that the mechanisms under investigation would be better captured when the measures could capture state manifestations versus trait manifestations. The importance of the distinction between traits and states is nothing new in the psychological literature (see for example Allport and Odbert, 1936) however their distinctiveness and conscious representation is not necessarily present in the literature. The most important difference between state and trait manifestations is that states are presumed to be short-lived manifestations of a

particular condition which are derived from immediate situational factors and mediate the effects of situations on behaviours (Fridhandler, 1986). Traits on the other hand are presumed to be highly enduring, even lifelong manifestations of a particular condition which result from distant and complex causal factors, which emanate from within the individual (Fridhandler, 1986). That is why, for example, in the literature traits are most commonly referred to as personality traits, since they are considered to be an integral part of the personality of the individual as opposed to a reaction or response to a particular event or circumstance.

The importance of this distinction lies in the ability of measures to capture observed differences after an experimental manipulation. As Zuckerman (1983) notes trait measures should have high test-re-test reliability and should not change with transient changes in situational conditions. Experimental manipulation of conditions in the independent variables are exactly such transient events in situational conditions and therefore should be better captured by state measures of the variables under investigation when such measures are available.

6.4. Individual Differences and Covariate Variables

The purpose of including a pre-exposure questionnaire as part of the experimental procedure was to ascertain that the observed effects were not dependent upon transient affective states such as mood (e.g. Van de Bergh, Dewitte and Warlop, 2008) as well as to investigate possible mediating and moderating concepts, that is boundary conditions, that might affect responses to the experimental manipulations, namely pre-existing personality trait level attributes and context related attitudes (e.g. Grossbard, Lee, Neighbors and Larimer, 2009; Sengupta and Dahl, 2008 and Pelletier and Dion, 2007).

6.4.1. Mood¹⁴

Mood as a word has a variety of definitions and a wide range of usages and meanings in day-to-day speech (Gardner, 1985). However as is commonly adopted in the literature (e.g. Van de Bergh, Dewitte and Warlop, 2008) mood in the premises of the present experiments denotes a "feeling state" (positive or negative, good or bad) that is subjectively perceived by individuals and is transient (Gardner, 1985). The point of

¹⁴ Please see Question 1 in the pre-exposure questionnaire in Appendix 6 for the items of the scale.

including such an individual differences measure in the experiments was to ascertain that such transient states that “suffuse all one’s experiences, even though directed at none particular” (Fiske, 1981: 231) do not affect the participants’ responses towards the specific objects as measured by the dependent variables. If exposure to sexual imagery in advertising leads to affective and cognitive changes, one’s mood prior to exposure to the manipulation could potentially influence the response to the outcome variables (e.g. Rook and Gardner, 1993). Depending on whether participants felt particularly happy or upset at the outset of the experiment, their responses could be coloured respectively to counterbalance these feelings (Van de Bergh, Dewitte and Warlop, 2008). In order to test whether self-reported mood states were not different across conditions the ‘Mood Short Form: MSF’ (Peterson and Sauber, 1983) was used to assess the affective quality (good vs. bad) of mood that participants possessed at the time of the experiments. The ‘MSF’ was developed by Peterson and Sauber (1983) to capture mood states exactly as described. The ‘MSF’ is advantageous as it comprises 4 Likert-type scored items with high internal consistency and low test-retest reliability over a 30-day period indicating that mood does indeed vary over time (Peterson and Sauber, 1983). Participants rated each statement on a scale from 1 – Strongly Disagree to 10 – Strongly Agree. The ‘MSF’ contains two reverse worded items; upon reversal of the relevant items, the scale was summed (with a minimum of 4 to a maximum of 40) to form a continuous index of Mood whereby higher scores denote greater positive Mood. The scale mean for the overall sample was 30.74 (out of a maximum 40; s.d. = 5.700) denoting a relatively high positive mood across participants. Cronbach α was 0.832 denoting a very strong internal consistency of the scale.

6.4.2. General Causality Orientations¹⁵

Previous research on the effects of sexual imagery on psychological outcomes (e.g. Kopp and Zimmer-Gembeck, 2011; Mask and Blanchard, 2011a; Pelletier and Dion, 2007; Pelletier, Dion and Levesque, 2004) has asserted that levels of general self-determination can act as an important mediating construct that has the ability to alleviate or protect against negative outcomes. The aforementioned research clearly shows that the negative effects of sexual imagery in advertising on self-esteem, body image dissatisfaction and the regulation of eating behaviours can be successfully mediated by individuals who adopt a more autonomous self-determination. More autonomously motivated participants tend

¹⁵ Please see Question 3 in the pre-exposure questionnaire in Appendix 6 for the items of the scale.

to be better equipped to protect themselves against endorsements of societal pressures regarding the ideal body and against body dissatisfaction (Kopp and Zimmer-Gembeck, 2011). In order to test whether self-reported trait level general self-determination mediates the effects of exposure to sexual imagery the 'General Causality Orientations Scale (GCOS)' (Deci and Ryan, 1985b) was used to assess participants' levels of general trait level self-determination. The GCOS measures the strength of three different motivational orientations within an individual according to Self Determination Theory (see previous chapter for the general theoretical overview of Self Determination Theory). The three orientations are 'Autonomy', 'Controlled', and 'Impersonal' orientation, and are understood as relatively enduring aspects of personality, and each orientation is theorised to exist within each individual to some degree (Deci and Ryan, 1985b). Individuals achieve a score on each subscale with higher scores denoting higher levels of presence of the particular orientation within each individual. The Autonomy Orientation assesses the extent to which a person is oriented toward aspects of the environment that stimulate intrinsic motivation, are optimally challenging, and provide informational feedback (Deci and Ryan, 1985b). The Controlled Orientation assesses the extent to which a person is oriented toward being controlled by rewards, deadlines, structures, ego-involvements, and the directives of others (Deci and Ryan, 1985b). The Impersonal Orientation assesses the extent to which a person believes that attaining desired outcomes is beyond his or her control and that achievement is largely a matter of luck or fate (Deci and Ryan, 1985b). Generally more autonomous orientation is related to positive outcomes on self-esteem while controlled and impersonal orientation are related to public self-consciousness, social anxiety and contingent self-esteem (Knee, Canevello, Bush, and Cook, 2008; Neighbors, Larimer, Markman Geisner, and Knee, 2004 and Deci and Ryan, 1985b). The scale is comprised of 17 vignettes and 51 Likert-type items (Hodgins, Koestner, and Duncan, 1996) scored from 1 – Very Unlikely to 10 – Very Likely. Each vignette describes a typical social or achievement oriented situation and is followed by three types of responses: an autonomous, a controlled, and an impersonal type (Deci and Ryan, 1985b). Participants rate the extent to which each response is typical for them. Scores from each subscale were summed across their respective items such as aforementioned higher scores denote higher levels of presence of each orientation (with a minimum of 17 to a maximum of 170). The scale means for the overall sample were 135.66 (out of a maximum 170; s.d. = 14.1) for the Autonomy orientation¹⁶, 96.60 (out of

¹⁶ Sum of responses Q3.1.c, Q3.2.c, Q3.3.a, Q3.4.b, Q3.5.b, Q3.6.b, Q3.7.c, Q3.8.c, Q3.9.b, Q3.10.b, Q3.11.a, Q3.12.a, Q3.13.a, Q3.14.c, Q3.15.a, Q3.16.a, Q3.17.a

a maximum 170; s.d. = 15.7) for the Controlled Orientation¹⁷ and 83.40 (out of a maximum 170; s.d. = 19.800) for the Impersonal Orientation¹⁸, denoting that generally the participants exhibit relatively high autonomous causality orientations, followed by controlled causality orientations and impersonal orientations suggesting that participants are firstly orientated towards aspects of the environment that stimulate intrinsic motivations and sequentially towards extrinsic contingencies or consider achieving outcomes a matter of luck. Cronbach α was 0.830 for the Autonomy orientation, 0.740 for the Controlled Orientation and 0.800 for the Impersonal Orientation denoting for all scales a strong internal consistency.

6.4.3. Contingent Self-Esteem¹⁹

Contingent self-esteem is defined as the tendency to base positive feelings of self-worth on specific outcomes or events (Deci and Ryan, 1995). Individuals possessing relatively high contingent self-esteem interpret their self-feelings according to performance in a given context (Paradise, 2001). Contingent self-esteem is fragile and is contrasted with true self-esteem, which refers to individuals possessing consistent favourable feelings of self-worth based in a solid sense of self, which sense of self emerges naturally from the satisfaction of the fundamental psychological needs for competence, self-determination and relatedness and does not require continual validation from situational cues (Paradise, 2001; Deci and Ryan, 1995). Previous research has shown that individuals possessing high contingent self-esteem exhibit more negative psychological outcomes when exposed to sexual imagery in advertising compared to individuals with low contingent self-esteem (e.g. Grossbard, Lee, Neighbors and Larimer, 2009; Blond, 2008; Jones, and Buckingham, 2005; Patrick, Neighbours, and Knee, 2004). Research shows that high contingent self-esteem can either predict more negative psychological outcomes when exposed to sexual imagery in advertising (e.g. Bailey, and Ricciardelli, 2010; Patrick, Neighbours, and Knee, 2004) or operate as a moderator between psychological outcomes and exposure vs non exposure to sexual imagery in advertising (Jones, and Buckingham, 2005). Relatedly previous research has shown that contingent self-esteem mediates the relationship between controlled general causality orientations and detrimental behaviours for individual well-being (Neighbors, Larimer,

¹⁷ Sum of responses Q3.1.b, Q3.2.a, Q3.3.b, Q3.4.c, Q3.5.c, Q3.6.a, Q3.7.a, Q3.8.b, Q3.9.a, Q3.10.a, Q3.11.b, Q3.12.b, Q3.13.c, Q3.14.a, Q3.15.c, Q3.16.c, Q3.17.c

¹⁸ Sum of responses Q3.1.a, Q3.2.b, Q3.3.c, Q3.4.a, Q3.5.a, Q3.6.c, Q3.7.b, Q3.8.a, Q3.9.c, Q3.10.c, Q3.11.c, Q3.12.c, Q3.13.b, Q3.14.b, Q3.15.b, Q3.16.b, Q3.17.b

¹⁹ Please see Question 2 in the pre-exposure questionnaire in Appendix 6 for the items of the scale.

Markman Geisner, and Knee, 2004). In order to test whether self-reported contingent self-esteem can predict the effects of exposure to sexual imagery the 'Contingent Self-Esteem Scale' (CSES) (Paradise and Kernis, 2002; Paradise, 2001) was used to assess participants' levels of contingent self-esteem. The CSES measures the degree upon which self-esteem is based upon external contingencies based on Kernis' (2003; 2005) conceptualisations of self-esteem. The scale comprises of 15 Likert-type statements and was scored from 1 – Not at all like me to 10 – Very much like me. Paradise (2001) reports that the CSES works as a unidimensional scale by summing all the items to one continuous measure of contingent self-esteem with higher scores denoting higher levels of self-esteem. However in the present experiments Cronbach α for the CSES as a whole was 0.404 indicating very low internal consistency. Therefore in order to use the scale for further analysis an exploratory factor analysis (EFA) was undertaken to investigate for a possible underlying factorial structure. Indeed the EFA supported the breaking of the scale in four simpler factors namely CSES Looks, CSES Others, CSES Failure, CSES Performance. Each factor represents a more singular and specific domain of self-esteem. These uncovered underlying dimensions seem to agree with Crocker, Luhtanen, Cooper, and Bouvrette's (2003) critique of Kernis' (2003; 2005) conceptualisation in that the importance of contingent self-esteem is not whether the individual's self-esteem is as a whole contingent or not, but the domains upon which contingencies are staked, since different individuals may exhibit significantly different contingencies across different domains or a self-esteem that is particularly contingent on one domain but not on others. Table 2 below presents the structure adopted in the current experiments as well as the relevant Cronbach α across factors; means and standard deviations are given for both items and factors. Factor scores were created by summing the individual relevant items such that higher scores denote higher contingency of the self-esteem upon the relevant domain. The factor scores denote that the participants exhibit first of all high contingent self-esteem upon performance, then upon failure, then upon approval of others and finally upon their appearance. Cronbach α was greatly improved for each subdomain now ranging from 0.814 for CSES Looks to 0.690 for CSES Performance denoting for all scales a good internal consistency.

Table 2: Study 1 Factor Analytic Structure for CSES.

Code	Questionnaire Scale Items	Factor Label	Factors**				Mean / SD
			1	2	3	4	
Q2_14	My overall feelings about myself are heavily influenced by how good I look.	CSES Looks	0.890				5.70 / 2.120
Q2_6	An important measure of my worth is how physically attractive I am.		0.840				6.43 / 2.070
Q2_8	If I am told that I look good, I feel better about myself in general.		0.530				7.83 / 1.670
Q2_4	My overall feelings about myself are heavily influenced by how much other people like and accept me.	CSES Others		0.940			6.40 / 2.210
Q2_5	If I get along well with somebody, I feel better about myself overall.		0.630				7.60 / 1.714
Q2_7	My overall feelings about myself are heavily influenced by what believe other people are saying or thinking about me.		0.590				6.20 / 2.210
Q2_15*	Even in the face of rejection, my feelings of self-worth remain unaffected.	CSES Failure			0.890		7.20 / 1.902
Q2_2*	Even in the face of failure, my feelings of self-worth remain unaffected.		0.660				6.90 / 1.911
Q2_9*	My feelings of self-worth are basically unaffected when other people treat me badly.		0.552				7.40 / 1.810
Q2_3	A big determinant of how much I like myself is how well I perform up to the standards that I have set for myself.	CSES Performance				0.773	7.64 / 1.670
Q2_1	An important measure of my worth is how competently I perform.					0.593	7.70 / 1.594
Q2_12	When my actions do not live up to my expectations, it makes me feel dissatisfied with myself.					0.562	7.92 / 1.433
Cronbach Alpha			0.814	0.781	0.750	0.690	
Eigenvalues***			2.580	2.290	2.151	1.630	
Mean/ SD			19.96 / 5.030	20.17 / 5.145	21.42 / 4.580	23.22 / 3.688	
KMO			0.740				
Bartlett's Test of Sphericity			Chi-Square = 713.645, df = 66, Sig. < 0.001				
% of Variance explained			60.00 %				

*: Questions 2, 9 and 15 were reverse scored due to being items phrased with opposite valence so that higher scores denote higher contingent self-esteem.

** : Maximum Likelihood Estimation Method with Oblimin Rotation (Kaiser Normalisation). Factors are correlated. Model is statistically significant: Chi-Square = 38.098, df = 24, Sig. = 0.034

***: When factors are correlated, sums of rotated squared loadings cannot be added to obtain a total variance.

6.4.4. Sexual Liberalism²⁰

Previous research on consumer response towards sexual imagery in advertising has shown that sexual liberalism is a strong determinant of responses both on a psychological level as well as regarding traditional marketing outcomes (e.g. Sengupta and Dahl, 2008; Mittal and Lassar, 2000; Gould, 1994). Sengupta and Dahl (2008) show that both male and female participants possessing more liberal attitudes towards sex report more positive attitudinal responses towards advertisements utilising gratuitous sexual imagery. Similarly, Mitall and Lassar (2000) show that participants with more sexually liberal attitudes towards sex do not consider the use of sexual imagery in advertising as manipulative, are not ethically objected to said imagery and have more positive attitudes towards the ad. Finally, Gould (1994; 1992) shows that erotophilia/erotophobia²¹ (trait level characterisation of sexual liberalism) has an important impact on how individuals perceive sexual imagery in advertising and how inclined individuals are to adopt negative attitudes regarding ethical beliefs and use of such imagery in advertising. In order to test whether self-reported sexual liberalism mediates the effects of exposure to sexual imagery the 'Multidimensional Measure of Comfort with Sexuality Short Form: MMCSI' (Tromovitch, 2000) and the 'Attitudes Toward Sexuality Scale: ATSS' (Fisher and Hall, 1988) were used to assess participants' levels of sexual liberalism. The MMCSI (Tromovitch, 2000) was developed as a multidimensional measure of comfort with sexuality to be used with college level populations. The initial format of the MMCSI contained 32 Likert-type items arranged in four separate sub-scales. However due to the size of the scale a shorter form was created (used here) containing 9 Likert-type items with no items of reverse valence. The scale was scored from 1 – Very Unlikely to 10 – Very Likely. The scale was summed (with a minimum of 9 to a maximum of 90) to form a continuous measure of comfort with sexuality with higher scores denoting increased comfort with sexuality. The MMCSI²² scale average was 64.44 (out of a maximum 90; s.d. = 12.750) denoting participants were very comfortable with their sexuality. Cronbach α was 0.804 denoting a strong internal consistency of the scale. Because comfort with sexuality does not necessarily mean individuals accept sexuality as a positive thing (for example an individual might be comfortable discussing sexual behaviours that should not be condoned) the ATSS (Fisher and Hall, 1988) was used to assess general level attitudes

²⁰ Please see Question 4 in the pre-exposure questionnaire in Appendix 6 for the items of the scale.

²¹ Due to issues with obtaining ethical approval the initial attempt to use the Sexual Opinion Survey (Rye, Meaney and Fisher, 2011) that was created to specifically measure this trait level dimension was abandoned and softer general level attitude measures were used to measure sexual liberalism as described.

²² Sum of Q4.1 to Q4.9

towards sexuality. The ATSS (Fisher, 2011) was created to measure general level attitudes in a brief, simple and non-offensive manner that could be used to compare responses across different populations. The ATSS comprises 13 items examining a variety of sexual attitudes for different topics (e.g. nudity, abortion, contraception, premarital sex, pornography, prostitution, homosexuality and sexually transmitted infections) therefore providing a very broad attitudinal measure (Fisher, 2011). The scale was scored from 1 – Very Unlikely to 10 – Very Likely. The scale contains seven items that are reverse scored. After reversing these items the scale was summed to form a continuous measure of attitudes towards sexuality with higher scores denoting greater permissiveness about sexual matters and lower scores denoting greater conservatism. An initial reliability analysis of the scale showed that the item measuring attitudes towards prostitution (“Prostitution should be legalised”) was highly problematic and highly corrupted the scoring of the scale. The most probable explanation is that the legalisation of prostitution does not necessarily reflect a more permissive attitude towards sex since prostitution is linked to issues of sexism, violence towards women and a range of socially unstable behaviours. Therefore most individuals even if they exhibited generally positive attitudes towards sex were mostly against the legalisation of prostitution. After this item was removed the scale was re-summed (with a minimum of 12 and a maximum of 120). The ATSS²³ average was 97.02 (out of a maximum 120; s.d. = 15.145) denoting participants had very liberal attitudes towards sex. Cronbach α was 0.803 denoting a strong internal consistency of the scale.

6.5. Dependent/Outcome Variables

The outcome variables serve to capture the hypothesised psychological effects of sexual imagery in advertising. As described above (in the beginning of this section) caution was taken to choose measures that had the expressed ability to capture the results of the experimental manipulations. The following paragraphs describe the questionnaires used to capture the outcome variables as they were identified in the hypotheses section.

²³ Sum of Q4.10 to Q4.14 and Q4.16 to Q4.22

6.5.1. Life Aspirations²⁴

The 'Aspirations Index' (Kasser and Ryan, 1993; 1996) was used to assess the aspirations of the participants after exposure to the experimental stimuli. Aspirations refer to people's life goals and can change accordingly with changing contexts, situations and personal decisions (Kasser, 2004). The 'Aspirations Index' measures individuals' life goals with respect to the relative strength of intrinsic aspirations (i.e. meaningful relationships²⁵, personal growth²⁶, community contributions²⁷ and health²⁸) versus extrinsic aspirations (i.e. wealth²⁹, fame³⁰, and image³¹). These seven types of aspirations in total form an intrinsic aspirations scale (the four sub-scales mentioned) and an extrinsic aspirations scale (the three sub-scales mentioned), with five specific items within each aspiration category sub-scale. For the purposes of the present study only the individual aspiration categories subscale scores were calculated and used in the analyses, since they allowed a deeper investigation of the possible effects of sexual imagery. Participants rated for each aspiration its importance to them, their belief about the likelihood of attaining the aspiration and the degree to which they believe they have already attained each aspiration on a scale from 1 (Not at all) to 10 (Very much). Scores from each subscale were summed across their respective items such as higher scores denote higher importance of a particular aspiration, higher likelihood of attaining the particular aspiration and a higher degree of current attainment of the particular aspiration. Subscale mean scores for the importance of the different Aspirations were for the Intrinsic Aspirations: 46.52 (out of a maximum 50; s.d. = 3.700) for Meaningful Relationships, 43.15 for Personal Growth (out of a maximum 50; s.d. = 4.420), 38.20 for Community Contributions (out of a maximum 50; s.d. = 7.600) and 43.42 for Health (out of a maximum 50; s.d. = 6.310); for the Extrinsic Aspirations: 34.20 for Wealth (out of a

²⁴ Please see Question 2 in the post-exposure questionnaire in Appendix 7 for the complete layout of the Aspirations questionnaire.

²⁵ Meaningful Relationships aspiration items: To have good friends that I can count on, To share my life with someone I love, To have committed, intimate relationships, To feel that there are people who really love me, and whom I love, To have deep enduring relationships.

²⁶ Personal Growth aspiration items: To grow and learn new things, At the end of my life, to be able to look back on my life as meaningful and complete, To choose what I do, instead of being pushed along by life, To know and accept who I really am, To gain increasing insight into why I do the things I do.

²⁷ Community Contribution aspiration items: To work for the betterment of society, To assist people who need it, asking nothing in return, To work to make the world a better place, To help others improve their lives, To help people in need.

²⁸ Health aspiration items: To be physically healthy, To feel good about my level of physical fitness, To keep myself healthy and well, To be relatively free from sickness, To have a physically healthy life style.

²⁹ Wealth aspiration items: To be a very wealthy person, To have many expensive possessions, To be financially successful, To be rich, To have enough money to buy everything I want.

³⁰ Fame aspiration items: To have my name known by many people, To be admired by many people, To be famous, To have my name appear frequently in the media, To be admired by lots of different people.

³¹ Image aspiration items: To successfully hide the signs of aging, To have people comment often about how attractive I look, To keep up with fashions in hair and clothing, To achieve the 'look' I've been after, To have an image that others find appealing.

maximum 50; s.d. = 9.004), 21.10 for Fame (out of a maximum 50; s.d. = 9.500), and 28.54 for Image (out of a maximum 50; s.d. = 9.600) denoting that generally speaking participants showed a higher preference for intrinsic aspirations versus extrinsic aspirations.

Subscale mean scores for the likelihood of attaining the different Aspirations in the future were for the Intrinsic Aspirations: 40.00 (out of a maximum 50; s.d. = 7.533) for Meaningful Relationships, 38.63 for Personal Growth (out of a maximum 50; s.d. = 5.920), 34.34 for Community Contributions (out of a maximum 50; s.d. = 7.450) and 36.70 for Health (out of a maximum 50; s.d. = 8.000); for the Extrinsic Aspirations: 30.30 for Wealth (out of a maximum 50; s.d. = 8.170), 17.80 for Fame (out of a maximum 50; s.d. = 7.200), and 27.00 for Image (out of a maximum 50; s.d. = 8.700) denoting again that the participants considered more likely to attain their intrinsic aspirations rather than their extrinsic aspirations in the future.

Finally, subscale mean scores regarding current attainment of the different Aspirations were for the Intrinsic Aspirations: 32.90 (out of a maximum 50; s.d. = 10.700) for Meaningful Relationships, 30.04 for Personal Growth (out of a maximum 50; s.d. = 7.100), 25.41 for Community Contributions (out of a maximum 50; s.d. = 8.700) and 31.64 for Health (out of a maximum 50; s.d. = 9.400); for the Extrinsic Aspirations: 18.41 for Wealth (out of a maximum 50; s.d. = 8.100), 13.21 for Fame (out of a maximum 50; s.d. = 6.100), and 24.00 for Image (out of a maximum 50; s.d. = 8.600) denoting again that the participants feel they have attained a larger part of their intrinsic aspirations versus their extrinsic aspirations.

An interesting observation of the above is that from Importance to Likelihood of Attainment to Current Levels of Attainment the scores keep dropping across all aspirations while at the same time the standard deviation is increasing. This result means that not only are the participants more certain regarding the importance of their aspirations, less certain regarding the likelihood of attainment of these aspirations and feel they have at the moment attained an even smaller part of their aspirations but also that the differences in perceptions between individuals increase. Cronbach α ranged from 0.600 for Personal Growth Importance to 0.911 for Health Importance. Therefore all subscales exhibit acceptable internal consistency (Please see Table 4 for Cronbach α , Means, Standard Deviations and Correlations with the other independent and dependant variables).

6.5.2. Situational Motivation for Consumption³²

In order to assess the participants' motivation for engaging in consumption activities the study utilised the Situational Motivation Scale (SIMS) as developed by Guay, Vallerand and Blanchard (2000). The SIMS was created by Guay, Vallerand and Blanchard (2000) as a state measure of motivation with the explicit purpose of creating a motivation instrument according to Self-Determination Theory standards measuring different types of motivation for different activities in field and laboratory settings and therefore more prone to be susceptible to experimental manipulation. Therefore the SIMS is a suitable instrument to be used in experimental settings. The SIMS is comprised of four subscales of four items each measuring Intrinsic Motivation³³, Identified Regulation³⁴, External Regulation³⁵ and Amotivation³⁶ for engaging in a particular activity as per the facets of motivation described in Self-Determination Theory (Deci and Ryan, 1985; see also previous chapter on Self-Determination Theory in the literature review section). Participants rated the SIMS on a scale of 1 – Strongly Disagree to 10 – Strongly Agree. Scores from each subscale were summed across their respective items so that higher scores indicate greater motivation and greater influence by the particular type of motivation. Overall participants exhibited high Intrinsic Motivation for consumption activities (mean = 27.15, s.d. =5.500) followed closely by Identified Regulation (mean = 26.80, s.d. =4.803), Amotivation (mean = 16.05, s.d. =5.340), and External Regulation (mean = 15.70, s.d. =7.200) denoting that the participants generally consume goods and services due to intrinsic reasons (motivations). Cronbach α was 0.764 for Intrinsic Motivation, 0.607 for Identified Regulation, 0.616 for Amotivation and 0.774 for External Regulation. Therefore all the subscales exhibit acceptable internal consistency.

6.5.3. State Self-Esteem³⁷

Self-Esteem in the present study was assessed using the State Self-Esteem Scale (SSES) developed by Heatherton and Polivy (1991). The SSES is comprised of twenty items as modified by Heatherton and Polivy (1991) from the Janis-Field Feelings of Inadequacy Scale (Janis and Field, 1959). The SSES as a measure was developed to

³² Please see Question 4 in the post-exposure questionnaire in Appendix 7 for the items of the scale.

³³ Sum of Q4.1, Q4.5, Q4.9, Q4.13

³⁴ Sum of Q4.2, Q4.6, Q4.10, Q4.14

³⁵ Sum of Q4.4, Q4.8, Q4.12, Q4.16

³⁶ Sum of Q4.3, Q4.7, Q4.11, Q4.15

³⁷ Please see Question 3 in the post-exposure questionnaire in Appendix 7 for the items of the scale.

exactly measure short-lived changes in Self-Esteem as such that occur during experimental manipulations and indeed Heatherton and Polivy (1991) demonstrate that the SSES is sensitive to such manipulations across five different studies. Participants rated the SSES on a Likert-type scale from 1 – Not at all to 10 – Extremely. The scale contains several reverse worded items (13 out of the 20 items). According to Heatherton and Polivy (1991) the scale can operate either as continuous index of self-esteem or can be broken down to three subscales, namely a scale that measures performance related self-esteem, social self-esteem and appearance related self-esteem. Since the CSES used to measure contingent self-esteem was also broken down in smaller facets of self-esteem in the premises of this study so did the SSES. In order to do that and corroborate the suggested factorial structure by Heatherton and Polivy (1991) an initial exploratory factor analysis was conducted. The initial factor analysis showed that the original tripartite factorial structure did not hold for our sample, instead a four factor model was more accurate especially after removing certain items³⁸ that exhibited significantly low communalities, cross-loadings across factors, and low factor loadings. The Appearance sub-scale was partially kept and renamed SSES Looks, the Performance subscale was partially kept in form and name and the Social sub-scale was divided into two new sub-scales: one named 'SSES Image' and one named 'SSES General Self'. Table 3 below presents the structure adopted in the current experiments as well as the relevant Cronbach α across factors; means and standard deviations are given for both items and factors. Upon reversal of the relevant items factor scores were created by summing the individual relevant items such that higher scores denote higher satisfaction or more positive self-esteem per each domain (SSES Looks was summed with a minimum of 5 to a maximum of 50; SSES Performance from 6 to 60 and SSES Image, SSES General Self from 3 to 30). The factor scores denote that the participants (after accounting for the subscales' different ranges) exhibit first of all high performance self-esteem, then a lower but still high general self self-esteem, then a medium level appearance related self-esteem and last, low Image self-esteem, making them relatively self-conscious. Cronbach α ranges from 0.885 for SSES Looks to 0.766 for SSES Image denoting for all scales a very good internal consistency.

³⁸ Items removed were: Q3.2 I am worried about whether I am regarded as a success or failure; Q3.5 I feel that I am having trouble understanding things that I read; Q3.10 I feel displeased with myself

Table 3: Study 1 Factor Analytic Structure for SSES.

Code	Questionnaire Scale Items	Factor Label	Factors**				Mean / SD
			1	2	3	4	
Q3.12	I am pleased with my appearance right now.	SSES Looks	0.869				5.92 / 2.200
Q3.7*	I am dissatisfied with my weight. *		0.688				5.90 / 3.000
Q3.8 *	I feel self-conscious. *		0.678				4.92 / 2.470
Q3.16*	I feel unattractive. *		0.677				6.54 / 2.394
Q3.3	I feel satisfied with the way my body looks right now.		0.635				5.42 / 2.410
Q3.18*	I feel that I have less academic ability right now than others. *	SSES Performance		0.956			6.05 / 2.800
Q3.9	I feel as smart as others.			0.670			6.30 / 2.400
Q3.19*	I feel like I'm not doing well. *			0.664			6.80 / 2.500
Q3.14	I feel confident that I understand things.			0.496			6.80 / 2.020
Q3.4*	I feel frustrated or rattled about my performance. *			0.423			5.70 / 2.210
Q3.15*	I feel inferior to others at this moment. *			0.343			6.94 / 2.380
Q3.17*	I feel concerned about the impression I am making. *	SSES Image			0.801		5.50 / 2.400
Q3.13*	I am worried about what other people think of me. *				0.718		4.84 / 2.400
Q3.20*	I am worried about looking foolish. *				0.641		5.73 / 2.801
Q3.1	I feel confident about my abilities.	SSES General Self				0.596	6.90 / 1.560
Q3.6	I feel that others respect and admire me.					0.579	5.30 / 1.970
Q3.11	I feel good about myself.					0.521	6.60 / 1.920
Cronbach Alpha			0.885	0.856	0.766	0.810	
<i>Eigenvalues***</i>			5.434	4.861	3.853	3.214	
<i>Mean/ SD</i>			28.70 / 10.300	38.44 / 11.000	16.10 / 6.300	18.80 / 4.630	
<i>KMO</i>			0.893				
<i>Bartlett's Test of Sphericity</i>			Chi-Square = 1607.592, df. = 136, Sig. <0.0001				
<i>% of Variance explained</i>			60.00%				

*: Reverse scored items

** : Maximum Likelihood Estimation Method with Oblimin Rotation (Kaiser Normalisation). Factors are correlated. Model is statistically significant: Chi-Square = 142.093, df = 74, Sig. < 0.0001

***: When factors are correlated, sums of rotated squared loadings cannot be added to obtain a total variance

6.5.4. Body (Dis)satisfaction³⁹

Body (dis)satisfaction measures the degree upon which individuals are dissatisfied with their body in terms of physical appearance. Body (Dis)satisfaction was assessed using the Body Image State Scale (BISS) as developed by Cash, Fleming, Alindogan, Steadman and Whitehead (2002). Once again the BISS was created specifically to measure changes in body dissatisfaction in specific contexts or in response to experimental manipulations. The scale is comprised by six items rated on a 9-point bipolar, Likert-type scale semantically anchored from a negative to a positive point of measurement depending on the particular domain of body dissatisfaction measured by each item. The BISS has three items that are reverse scored from a positive point to a negative; upon reversal of these three items the scale was calculated as a continuous summation of all six items such that higher BISS scores indicate more favourable body image states that is higher Body Satisfaction/lower Body Dissatisfaction (Cash, Fleming, Alindogan, Steadman and Whitehead, 2002) (with a minimum of 9 and a maximum of 54). The overall sample mean for the scale was 34.28 (out of a possible 54; s.d. = 9.939) denoting overall positive body image states. Cronbach α was 0.932 denoting a very strong internal consistency of the scale.

6.5.5. Basic Needs Scale⁴⁰

The General Basic Needs Fulfilment Scale (BNS) was used to assess the satisfaction of participants with the basic needs as expounded by Self-Determination Theory (namely Autonomy, Competence and Relatedness; see also Self-Determination Theory in the literature review) (Deci and Ryan, 2000). The BNS is comprised of 21 items measuring the individual's satisfaction with the three basic needs in general throughout their life. The Autonomy subscale of the BNS is comprised of 7 Likert-type items, the Competence subscale of 6 Likert-type items and the Relatedness sub-scale of 8 Likert-type items. All items are rated on a scale ranging from 1 – Not at all true to 10 – Very True. Like some of the previous scales in the present study the BNS contains nine reverse worded items. Upon reversal of the relevant items the subscales for each basic need were calculated as a summation of the individual items such that higher scores denote higher satisfaction

³⁹ Please see Question 6 in the post-exposure questionnaire in Appendix 7 for the items of the scale.

⁴⁰ Please see Question 5 in the post-exposure questionnaire in Appendix 7 for the items of the scale.

with the fulfilment of the particular need. The overall sample mean for Autonomy⁴¹ was 48.00 out of a possible 70 (s.d. = 8.500); for Competence⁴² was 38.71 out of a possible 60 (s.d. = 8.800) and for Relatedness⁴³ was 60.43 out of a possible 80 (s.d.=11.329). The scores on BNS denote that on average the participants feel most fulfilled by their relationships with other people, next they feel more fulfilled in making autonomous decisions and last they felt relatively competent. Cronbach α was 0.700 for Autonomy, 0.725 for Competence and 0.881 for Relatedness denoting good internal consistency for the three subscales.

⁴¹ Sum of Q5.1, Q5.5(R), Q5.8, Q5.11(R), Q5.13, Q5.17, Q5.20(R)

⁴² Sum of Q5.3(R), Q5.4, Q5.10, Q5.12, Q5.14(R), Q5.19(R)

⁴³ Sum of Q5.2, Q5.6, Q5.7(R), Q5.9, Q5.15, Q5.16(R), Q5.18(R), Q5.21

Table 4: Study 1 Bivariate Correlations and Descriptive Statistics for the Outcome Variables

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43																	
1 Mood	0.832																																																											
2 CSES Others	-0.099	0.781																																																										
3 CSES Looks	-0.134	0.448	0.814																																																									
4 CSES Failure	0.176	0.252	-0.290	0.750																																																								
5 CSES Performance	0.079	0.040	0.200	-0.302	0.690																																																							
6 MMCSI	0.270	0.116	0.173	0.028	0.015	0.804																																																						
7 ATSS	0.053	0.131	0.051	-0.054	0.144	0.451	0.803																																																					
8 Controlled Orientation	-0.126	0.034	0.185	0.049	0.052	-0.032	-0.260	0.740																																																				
9 Impersonal Orientation	-0.186	0.355	0.144	-0.362	0.188	-0.094	0.037	0.144	0.800																																																			
10 Autonomous Orientation	0.283	-0.021	0.007	0.090	0.119	0.372	0.257	-0.001	-0.163	0.830																																																		
11 Importance of Wealth	-0.157	0.040	0.304	-0.036	0.067	-0.082	-0.151	0.447	-0.017	-0.190	0.880																																																	
12 Likelihood of Attaining Wealth	0.003	-0.061	0.111	0.243	-0.121	-0.006	-0.213	0.317	-0.347	0.085	0.614	0.880																																																
13 Current Wealth Attainment	0.008	-0.007	0.194	0.042	-0.127	0.070	-0.166	0.147	-0.281	-0.124	0.312	0.539	0.850																																															
14 Importance of Fame	-0.128	0.176	0.219	0.032	0.056	0.048	-0.166	0.280	-0.121	-0.070	0.320	0.255	0.255	0.870																																														
15 Likelihood of Attaining Fame	0.011	-0.0460	0.175	0.131	-0.095	0.120	-0.234	0.192	-0.331	0.054	0.206	0.426	0.399	0.772	0.821																																													
16 Current Fame Attainment	0.119	0.042	0.163	0.119	-0.090	0.241	-0.093	0.131	-0.378	0.129	0.071	0.283	0.527	0.547	0.783	0.773																																												
17 Importance of Image	-0.099	0.324	0.637	-0.081	0.023	0.052	-0.091	0.329	-0.034	0.028	0.466	0.311	0.285	0.352	0.270	0.272	0.820																																											
18 Likelihood of Attaining Image	0.067	0.134	0.441	0.030	-0.071	0.227	-0.141	0.267	-0.232	0.113	0.312	0.452	0.405	0.275	0.422	0.488	0.750	0.800																																										
19 Current Image Attainment	0.146	0.100	0.317	0.036	0.088	0.292	-0.023	0.152	-0.299	0.209	0.174	0.321	0.480	0.262	0.457	0.618	0.577	0.775	0.770																																									
20 Importance of Personal Growth	0.032	-0.020	0.108	0.121	0.136	0.099	-0.059	0.013	-0.101	0.252	0.004	0.053	-0.102	0.064	0.063	0.029	0.142	0.104	0.065	0.600																																								
21 Attaining Personal Growth	0.172	-0.152	0.107	0.205	-0.011	0.220	-0.095	-0.063	-0.265	0.283	-0.091	0.277	0.114	-0.032	0.231	0.267	0.115	0.319	0.268	0.542	0.741																																							
22 Current Personal	0.215	-0.071	0.104	0.183	-0.102	0.189	-0.024	-0.063	-0.376	0.335	-0.151	0.167	0.379	0.109	0.288	0.470	0.136	0.313	0.472	0.286	0.617	0.680																																						

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
Means	30.73	20.17	19.96	11.58	23.22	54.44	27.02	26.90	23.39	135.66	24.16	30.27	18.41	21.10	17.76	13.21	28.54	26.96	23.92	43.15	38.63	30.04	46.52	40.00	32.87	38.16	34.34	25.41	43.42	36.66	31.64	27.15	26.80	15.70	16.05	28.65	38.44	16.06	18.75	34.35	47.97	38.71	50.43
Standard Dev.	5.683	5.145	5.028	4.579	3.688	12.749	15.145	15.680	19.807	14.111	2.004	3.165	3.075	3.456	7.152	3.092	3.599	3.652	3.577	4.420	5.918	7.066	3.681	7.553	10.680	7.055	7.447	3.673	5.306	7.951	3.396	5.488	4.803	7.189	5.335	10.277	10.909	5.267	4.630	3.923	3.484	3.759	11.362

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

All significant correlations are also italicised. **Cronbach α** is in **bold** in the diagonal.

6.6. Results

6.6.1. Manipulation Check

The purpose of the manipulation of the different levels of nudity was to create depictions of sexual imagery in advertising that increased in intensity and explicitness with the intention of producing increased arousal across conditions (from the control / product only condition to the nude condition; lowest sexual arousal to highest sexual arousal). A secondary aim of the different stimuli used to manipulate nudity levels was to create advertisements that mimicked reality. With this in mind a particular manipulation check procedure was created and executed as described below.

A thought listing task (see also Mask and Blanchard, 2011a; 2011b; Edell and Keller, 1989) was used to increase the experimental saliency, provide manipulation check measures and assess what the participants were thinking during their exposure to the experimental stimuli. The participants were asked to complete two such tasks. The first task instructed participants to: "Please write down the any thoughts you have related to the images that were part of the advertisements you just saw. Write each thought in a separate box. Try to write down everything that comes to mind. Please let your thoughts flow naturally, as they normally would." This first task attempted to drive advertisement-related thoughts that could also give indications regarding the marketing effectiveness of sexual imagery in advertising. The second task instructed participants to: "Now, please write down any thoughts you have about yourself as a result of looking at the images that were part of the advertisements you just saw. Write each thought in a separate box. Try to write down everything that comes to mind. Please let your thoughts flow naturally, as they normally would." The second task attempted to generate saliency, affective and cognitive content.

The following paragraphs describe the quantitative coding, analysis and results of the manipulation check measures as these were extracted from the thought listing exercise. However before the description of the results the present paragraph outlines key methodological considerations regarding the design of the manipulation and the relevant manipulation check measures. As aforementioned the purpose of the manipulation was to increase arousal while providing stimuli as close to reality as possible. Koschate-Fisher and Schandelmeier (2014) note three elements are important when discussing the

manipulation check measures used to test the effectiveness of the manipulation of the different experimental variables namely the indicators used for assessing the manipulated construct, the point of time in the experiment in which the manipulation check is performed and possible confounding checks. The procedures followed to create stimuli that limited confounding factors have been described already in section 6.1.3. 'Experimental Stimuli'. Because caution was taken to design robust stimuli a priori limiting possible confounding effects no actual test was designed to measure these effects during the main experiment. The procedure of utilising the independent judges to create stimuli that minimised personal preferences differences for particular models and their attractiveness creating essentially equivalent stimuli across conditions was considered robust. Therefore model attractiveness and ad equivalency was not measured across conditions. The thought listing exercise took place in the main experiment *before* the measurement of the relevant dependent variables, as such the manipulation check measures were collected *before* collecting the dependent variable data (Perdue and Summers, 1986). The timing of the thought listing exercise before the measurement of the relevant dependent was predicated upon the fact that the purpose of the thought listing exercise was not only to provide manipulation check measures but also to increase the experimental saliency therefore it was logical and expected to be positioned before the measurement of the dependent variables. The procedure by which the manipulation check measures were extracted from the thought listing exercise is described in the following paragraph.

In order to create manipulation check measures / indicators the participant thought listing responses were coded by two independent coders otherwise uninformed to the actual purposes of the study so as to avoid any contamination. The coding was conducted via manifest quantitative content analysis. The coding level was individual phrases and the unit of analysis was individual words corresponding to particular thematic cognitive and affective response categories. As such the coders were given definition and example statements/words that represented ten cognitive and affective response categories: distractions⁴⁴, negative body related statements⁴⁵, negative affect⁴⁶, moral reasoning⁴⁷,

⁴⁴ The category of Distractions aimed to code instances where participants felt the images in the ad distracted their attention from the ad.

⁴⁵ The category of Negative Body Related Statements coded for instances where participants described themselves as having a bad body, feeling ugly unattractive, etc.

⁴⁶ The category of Negative Affect coded for instances where participants mentioned feeling upset, uneasy, negative, sad and similar adjectives denoting negative affect.

⁴⁷ The category of Moral Reasoning coded for instances where participants referred to the advertisements as unethical or morally wrong.

offense⁴⁸, sexual arousal⁴⁹, marketing effectiveness⁵⁰, product relevance⁵¹, compensation effect⁵² and common depictions⁵³. These ten categories defined the necessary manipulation check measures / indicators to test for the effectiveness of the stimuli to produce the desired effects of arousal and realistic depictions of advertisements as well as provide initial insights on the broader effects of sexual imagery on the individuals. Coders then run through the participant responses and coded the appearance of particular words per phrase. Phrases were used as opposed to full sentences since in certain cases the participants made only very concise notes per line making the separation of proper sentences very difficult even between full stops. Multiple occurrences of category related words were coded as multiple responses therefore each participant's score per category depended on the amount of category related words s/he used to describe their thoughts. For example arousal was coded in all instances that the participants referred to being/feeling aroused or thinking about sex. Every word that signified the idea of arousal or sex was coded as one instance. If a respondent wrote: "I think these ads are **sexy**, in fact I feel quite **aroused** right now" this was counted as two instances of arousal. After an initial explanation of the categories the coders coded a few initial questionnaires as a test (Pilot study questionnaires were used so as not to contaminate the main study coding) and any coding issues regarding unclear definitions or possible new data driven categories were resolved. No new categories were deemed necessary and the coders were given a few new examples of words/phrases that could be coded under each category. The coders then coded the main questionnaires by themselves and brought the coded output to the researcher. Initial inter-coder reliability was at 95%. Disagreements in coding were resolved through negotiation and consensus until all questionnaires were uniquely coded. Final agreement was 100%.

⁴⁸ The category of Offense coded for all instances where participants mentioned they were offended by the ads and found the ads or the imagery inappropriate.

⁴⁹ The category of Sexual Arousal coded for all instances where participants mentioned anything related to sex and sexual arousal.

⁵⁰ The category of Marketing Effectiveness was probably the most difficult category to code because of the amount of thoughts generated and the large variety between these thoughts. Initially the coders coded separately thoughts regarding attitudes towards the ad, regarding the effectiveness of the ad, statements of purchase intentions, attitudes towards the brand, and thoughts related to the actual product (e.g. quality, price, etc.) but the detail provided by this coding scheme exceeded the level necessary to check whether the experimental manipulation had worked. Additionally, some coding categories had very few responses. Thus, the categories were pulled together to generate a composite index of marketing effectiveness where the higher the score the more amount of positive marketing thoughts was generated.

⁵¹ The category of Product relevance was differentiated from the Marketing effectiveness category since previous literature (e.g. Severn, Belch and Belch, 1990) has shown that individuals tend to perceive products as irrelevant as nudity increases. The category therefore coded for all instances of negative comments on product relevance.

⁵² The category of Compensation Effect was created to measure instances where participants made the explicit statement that they would not allow themselves to be influenced by the images and think bad about their bodies or selves.

⁵³ The category of Common depictions was created to measure whether the experimental stimuli were close enough to the advertisements depicted in magazines in real life.

In total 1093 thoughts were coded under all cognitive and affective categories. Table 5 and Table 6 show the sum of thoughts per category and per experimental condition as well as per gender. Table 5 clearly shows that the experimental stimuli worked as expected. The participants were more distracted as nudity increased, experienced more general negative affect, employed more moral reasoning and they appeared more offended and aroused. However an interesting pattern of result emerges whereby negative body related statements / thoughts / cognitions, negative product relevance thoughts, marketing effectiveness reduction and common depictions peak in the semi – nude condition and then fall in the nude condition. These results show that compared to the nude condition (therefore more explicit and intense condition) consumers in the semi nude condition first of all indeed accept those depictions as more common in daily advertisements as opposed to the nude condition and second that although the nude condition produces more general negative affect, more arousal, more moral reasoning and more distraction it produces less strong negative body related statements / thoughts / cognitions and less strong effects in marketing in-effectiveness. Not all patterns emerge as statistically significant (the Kruskal Wallis non-parametric test was preferred to ANOVA due to reduced and unequal group sizes; this is natural as not all participants had commented in each category). The fact that not all reported differences between groups were statistically significant could be an issue of low response frequency and therefore a very limited number of answers in certain categories. The directionality of the response patterns for all categories taken together suggests that indeed the manipulation worked. No differences are observed also between males and females (the Mann Whitney U non-parametric test is preferred to a chi-square test of independence again due to the reduced and unequal group sizes), although again the patterns suggest that the results closely follow the previous literature. Females for example express many more negative body related statements statements / thoughts / compared to males, they are more offended, they consider the products to be more irrelevant and employ more compensation statements (e.g. Halliwell, Dittmar and Osborne, 2007; Lass and Hart, 2004; Halliwell and Dittmar, 2004).

Table 5: Study 1 Thoughts listed per experimental condition

		Distractions	Negative Body Related Thoughts*	Negative Affect*	Moral Reasoning	Offense **	Sexual Arousal*	Marketing Effectiveness **	Product Relevance	Compensation Effect	Common Depictions	
Experimental Conditions	Nude	15	25	23	31	34	124	62	37	17	5	
	Semi-nude	11	40	16	18	10	119	58	42	19	14	
	Clothed	4	10	10	2	3	64	66	25	10	9	
	Product only	1	1	4	0	5	9	140	1	8	1	
Totals		31	76	53	51	52	316	326	105	54	29	1093
Kruskal – Wallis Test		H = 0.366, d.f. = 3, sig. = 0.947	H = 7.188, d.f. = 3, sig. = 0.066	H = 7.188, d.f. = 3, sig. = 0.066	H = 3.582, d.f. = 2, sig. = 0.167	H = 23.926, d.f. = 3, sig. = 0.000	H = 6.960, d.f. = 3, sig. = 0.073	H = 21.592, d.f. = 3, sig. = 0.000	H = 2.923, d.f. = 3, sig. = 0.404	H = 1.779, d.f. = 3, sig. = 0.620	H = 1.786, d.f. = 3, sig. = 0.618	

** . Test is significant at the 0.001 level.

* . Test is significant at the 0.10 level.

Table 6: Study 1 Thoughts listed across genders

		Distractions	Negative Body Related Thoughts	Negative Affect	Moral Reasoning	Offense	Sexual Arousal	Marketing Effectiveness	Product Relevance	Compensation Effect	Common Depictions	
Gender of Participants	Male	16	9	18	27	21	119	140	43	18	9	
	Female	15	67	35	24	31	197	186	62	36	20	
Totals		31	76	53	51	52	316	326	105	54	29	1093
Mann-Whitney U Test		U = 57.000, sig. = 0.471	U = 113.500, sig. = 0.367	U = 145.000, sig. = 0.855	U = 119.500, sig. = 0.695	U = 3295.500, sig. = 0.823	U = 1469.000, sig. = 0.531	U = 1070.000, sig. = 0.549	U = 633.000, sig. = 0.320	U = 157.500, sig. = 0.270	U = 27.000, sig. = 0.213	

6.6.2. Analyses

6.6.2.1. Initial Analyses

Descriptive analyses were employed in order to check the properties of the data and determine their suitability for the intended analyses (Hair et al., 2010). All items were slightly non-normal with skewness and kurtosis close to 0, with some indices fluctuating with a maximum of 2. Since severe non-normality associates with kurtosis higher than 7 and skewness higher than 2 (Hair et al., 2010), all data were deemed suitable for all subsequent analyses. (Please see Table 4 for descriptive statistics, bivariate correlations and Cronbach α for the independent and the dependent variables).

Before conducting the main analyses, equivalency across all experiment conditions groups on age (Chi-square (35) = 33.498, $p = 0.541$), year of study (Kendall's Tau-b = 0.057, $p = 0.399$), religion practice (Kendall's Tau-b = 0.097, $p = 0.152$) and religion attendance (Kendall's Tau-b = 0.075, $p = 0.235$) was tested and supported.

Equivalency of individual differences/independent variables were checked across groups to ensure independence of the independent variables as covariates and the treatment effect of the experimental manipulation of the advertising imagery. Equivalency was supported for: Mood ($F(7, 158) = 0.895$, $p = 0.512$), CSES Others ($F(7, 158) = 1.559$, $p = 0.151$), CSES Performance ($F(7, 158) = 1.642$, $p = 0.127$), MMCSI ($F(7, 158) = 0.314$, $p = 0.947$), ATSS ($F(7, 158) = 0.732$, $p = 0.645$), GCOS Autonomy orientation ($F(7, 158) = 0.885$, $p = 0.520$) and GCOS Controlled orientation ($F(7, 158) = 0.994$, $p = 0.437$).

Equivalency was not supported for CSES Looks ($F(7, 158) = 2.298$, $p = 0.030$), CSES Failure ($F(7, 158) = 2.009$, $p = 0.057$), and GCOS Impersonal Orientation ($F(7, 158) = 2.701$, $p = 0.011$). In order to analyse further the issue of equivalency and to verify that these variables could be used as covariates in further analyses, the researcher employed first robust tests of equality of means as part of the ANOVA procedure, second non-parametric tests to ensure that the difference was not merely an artefact of unequal group sizes and third an extra round of ANOVAs now only with the four advertising conditions as a factor and a round of T-Tests with gender as the grouping variable. The robust tests of equality of means initially supported the ANOVAs and so did the non-parametric tests. However, the next round of ANOVAs confirmed equivalency across the

four advertising conditions for CSES Looks ($F(3, 162) = 1.077, p = 0.361$), CSES Failure ($F(3, 162) = 2.206, p = 0.090$), and GCOS Impersonal Orientation ($F(3, 162) = 2.155, p = 0.095$). The T-Tests following confirmed that the aforementioned differences were observed due to gender differences, therefore females exhibited statistically significant contingent self-esteem on looks ($M_{\text{males}} = 18.80, M_{\text{females}} = 21.00, t\text{-value} = -2.597, df. = 164, sig. = 0.010$) and suffer from a more impersonal causality orientation ($M_{\text{males}} = 79.30, M_{\text{females}} = 86.30, t\text{-value} = -2.584, df. = 164, sig. = 0.024$) while males exhibited statistically significant contingent self-esteem on failure ($M_{\text{males}} = 12.40, M_{\text{females}} = 11.00, t\text{-value} = 1.895, df. = 164, sig. = 0.060$). These results are in line with previous research that suggest that females are more prone or have learned/been taught to base their self-esteem on appearance contingencies (c.f. Halliwell, Dittmar and Osborne, 2007; Halliwell and Dittmar, 2004) something which is of course exacerbated by external factors such as sexual imagery in advertising. Similarly males can be more prone or have learned/been taught to be more achievement oriented and therefore base their self-esteem on contingencies of success and failure (Crocker, Luhtanen, Cooper, and Bouvrette, 2003).

6.6.2.2. Main Analyses and Hypotheses Testing

Two rounds of analyses were performed in order to examine the effects of sexual imagery on the dependent/outcome variables. Initially, one way ANOVAs were executed with all the 33 dependent outcome variables with no covariates and with the different conditions as a factor with eight categories (namely: Male-Nude, Male-Semi-Nude, Male-Clothed, Male-Product Only, Female-Nude, Female-Semi-Nude, Female-Clothed, and Female-Product Only).

After an initial confirmation of the statistical significance of effects on particular dependent variables a second round of two-way ANCOVAs was executed only for the dependents that exhibited statistically significant effects. ANCOVAs were run incorporating a 2x4 full factorial design with Gender (male vs. female) and Advertising Conditions (the four conditions for sexual imagery: Nude, Semi-Nude, Clothed, Product Only) as fixed factors and Mood, CSES Looks, CSES Others, CSES Failure, CSES Performance, GCOS Autonomy Orientation, GCOS Controlled Orientation, GCOS Impersonal Orientation, MMCSI and ATSS as covariates.

The first round of ANOVAs uncovered differences among groups for Aspirations: Importance of Fame ($F(7, 158) = 2.314, p = 0.028$), Likelihood of Attaining Fame ($F(7, 158) = 2.084, p = 0.048$), Importance of Image ($F(7, 158) = 2.072, p = 0.050$),

Importance of Meaningful Relationships ($F(7, 158) = 2.111, p = 0.045$), Current Attainment of Community Contributions ($F(7, 158) = 2.347, p = 0.026$), Importance of Health ($F(7, 158) = 2.167, p = 0.040$) and Current Attainment of Health ($F(7, 158) = 1.944, p = 0.066$). For self-esteem: SSE Looks ($F(7, 158) = 4.895, p < 0.001$), SSE Performance ($F(7, 158) = 2.903, p = 0.007$) and SSE Self ($F(7, 158) = 2.067, p = 0.050$). For body (dis)satisfaction: BISS ($F(7, 158) = 4.332, p < 0.001$). No differences among groups were uncovered for consumer motivations for consuming goods and services (SIMS scale) as well as satisfaction with basic needs (BNS Scale).

Because the seven groups were not exactly equal in terms of size and despite the fact that in all ANOVAs the hypothesis of homogeneous variance across groups was tested and found to hold (Levene's Test) the analysis employed robust tests of equality of means (namely Welch and Brown-Forsythe Indices) to check the validity of the initial omnibus ANOVA test as well as if there were additional dependents that could be considered. The robust tests of equality of means confirmed all aforementioned significant ANOVAs and pointed out additionally that there were differences among groups for Aspirations: Current Attainment of Fame (Welch $F(7, 61.501) = 2.200, p = 0.046$), Likelihood of Attaining Image (Welch $F(7, 62.573) = 2.929, p = 0.010$), Current Attainment of Meaningful Relationships (Welch $F(7, 61.856) = 2.931, p = 0.010$) and Importance of Community Contributions (Welch $F(7, 62.470) = 2.143, p = 0.052$). Therefore these outcome variables were also included in the second round of analyses.

The second round of two-way ANCOVAs was aimed at understanding the exact effect of the levels of sexual imagery and gender as well as to test possible interaction effects and investigate the possible effects of covariates. (Please see Table 7 for means and standard deviations across groups, Tables 8 to 11 for the ANCOVA results and Appendix 1 for the mean figures per dependent variable. Only the significant covariates are presented in the ANCOVA tables.)

Table 7: Study 1 Means and Standard Deviations across groups for Dependent Variables

	Sexual Imagery Condition																			
	Nude				Semi-nude				Clothed				Product only				Total Sample			
	Gender				Gender				Gender				Gender				Gender			
	Male		Female		Male		Female		Male		Female		Male		Female		Male		Female	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Importance of Fame	23.91	10.02	19.89	7.05	24.94	10.37	21.03	7.85	23.65	11.68	15.82	8.84	23.50	9.19	18.68	9.67	24.00	10.16	19.04	8.40
Likelihood of Attaining Fame	20.00	6.42	17.18	7.11	19.13	6.16	18.17	6.05	19.76	8.61	13.64	6.39	19.71	7.72	16.05	7.88	19.70	7.07	16.40	6.92
Current Attainment of Fame	14.41	6.20	13.11	5.90	13.19	6.30	13.14	4.95	15.29	7.00	10.59	5.40	15.00	8.00	11.95	5.81	14.46	6.70	12.32	5.50
Importance of Image	27.59	10.13	28.54	9.71	27.06	7.82	30.14	9.00	23.06	8.98	32.64	10.44	25.00	9.45	30.74	8.75	25.83	9.20	30.46	9.50
Likelihood of Attaining Image	26.55	9.00	28.89	8.70	24.94	8.40	27.76	8.52	23.12	8.60	28.50	8.80	26.00	8.60	27.53	8.70	25.22	8.60	28.20	8.53
Importance of Meaningful Relationships	45.86	4.40	47.56	3.10	46.31	3.80	46.69	3.30	45.00	3.80	47.05	3.63	44.43	4.64	48.05	2.40	45.46	4.12	47.28	3.15
Current Attainment of Meaningful Relationships	31.32	9.51	34.52	10.94	32.50	13.18	34.97	9.01	28.24	10.97	34.45	10.91	30.57	10.92	33.47	11.06	30.68	10.94	34.43	10.26
Importance of Community Contributions	37.97	7.49	40.24	6.57	37.71	8.24	40.64	6.70	38.04	5.65	37.89	7.67	34.40	5.59	37.69	7.21	37.20	7.06	39.32	7.08
Current Attainment Community	25.18	7.56	28.54	6.47	25.88	12.04	28.86	7.79	23.35	7.33	20.95	9.80	22.86	6.11	24.89	9.86	24.42	8.42	26.11	8.82
Importance of Health	43.95	5.70	43.61	5.23	44.56	4.59	45.24	3.99	41.24	7.22	44.05	5.92	38.36	10.21	43.74	6.97	42.29	7.24	44.22	5.44
Current Attainment of Health	35.14	6.33	30.33	8.60	33.88	10.82	33.97	7.39	32.88	7.75	27.64	11.62	28.00	9.54	30.21	11.51	32.84	8.75	30.78	9.79
SSES Looks	32.00	9.42	30.70	10.76	32.50	10.39	26.79	10.51	30.24	7.55	19.59	8.15	34.36	8.29	26.32	9.24	32.16	8.93	26.15	10.49
SSES Performance	40.00	9.36	38.67	10.89	42.13	12.34	37.14	9.32	42.71	10.38	30.14	13.28	40.79	8.40	39.26	8.83	41.32	10.04	36.39	11.09
SSES General Self	19.55	3.80	19.37	4.19	20.19	5.75	18.45	3.85	19.59	5.11	15.59	5.79	19.36	4.43	18.68	3.27	19.67	4.66	18.10	4.52
BISS	38.27	8.26	36.32	10.10	37.69	10.18	32.41	9.66	35.41	10.03	26.41	8.27	38.64	7.61	31.47	9.70	37.51	9.00	32.10	10.01

6.6.2.2.1. Hypothesis 1: Life Aspirations

Life Aspirations offered as a scale the largest pool of dependant variables. According to H1 (please see "Objectives and Hypotheses of the Project" section) consumers were expected to exhibit higher extrinsic Aspirations as they were exposed to increasing sexual imagery. By extension consumers were expected to exhibit lower Intrinsic Aspirations as they were exposed to increasing sexual imagery. The hypothesis was essentially not supported in its current form. First of all not all aspiration levels (Importance, Current Attainment and/or Likelihood of Attainment) differed across either gender or across the advertising conditions encompassing the increasing levels of sexual imagery. Of those that differed (2 out of 3 for the Extrinsic Aspirations and 3 out of 4 for the Intrinsic Aspirations; please see the summary ANCOVA results in Table 8 for Extrinsic Aspirations and Table 9 for Intrinsic Aspirations) most differed only across gender (taking into account relevant covariates). Only the Importance of Health was found to differ across both gender and advertising conditions while Current Attainment of Community Contributions and Current Attainment of Health were found to differ across advertising conditions only. And even these aspirations found to differ across the advertising conditions (all Intrinsic Aspirations) did not exhibit the hypothesised pattern.

The following paragraphs describe the results in detail.

Extrinsic Aspirations

Importance of Fame: The Importance of Fame domain asked participants to rate how important fame is for them in their lives. CSES Others ($F(1, 153) = 6.199, p = 0.014, \eta^2_p = 0.039$), CSES Looks ($F(1, 153) = 5.965, p = 0.016, \eta^2_p = 0.038$), GCOS Controlled Orientation ($F(1, 153) = 5.127, p = 0.025, \eta^2_p = 0.032$), GCOS Impersonal Orientation ($F(1, 153) = 4.687, p = 0.032, \eta^2_p = 0.030$) and ATSS ($F(1, 153) = 3.326, p = 0.070, \eta^2_p = 0.021$) were significant covariates such that the more contingent one's self esteem was on the approval of others and on appearance the more important fame was; the more individuals exhibited controlled orientation the more important fame was; the more they exhibited an impersonal orientation the less important fame was and the more sexually liberal they were the more important fame was. Main effects were found only for gender ($F(1, 153) = 13.211, p < 0.0001, \eta^2_p = 0.079$). Planned orthogonal contrasts and post-hoc analyses with "p-values" adjusted using Bonferroni correction revealed that males placed higher importance on fame compared to females ($M_M = 24.00, M_F = 19.04, F(1, 153) = 13.211, p < 0.0001, \eta^2_p = 0.079$).

Likelihood of Attaining Fame: The Likelihood of Fame domain asked participants to rate how likely they consider that in the future they will be or become famous. CSES Looks ($F(1, 154) = 13.289, p < 0.0001, \eta^2_p = 0.079$), GCOS Impersonal Orientation ($F(1, 154) = 16.157, p < 0.0001, \eta^2_p = 0.095$), MMCSI ($F(1, 154) = 5.693, p < 0.018, \eta^2_p = 0.036$) and ATSS ($F(1, 154) = 17.074, p < 0.001, \eta^2_p = 0.0100$) were significant covariates such that the more contingent one's self esteem was on appearance the more likely they considered themselves to be famous in the future; the more individuals exhibited an impersonal orientation the less likely they considered themselves to be famous in the future; and the more sexually liberal they were the more likely they considered themselves to be famous in the future. Main effects were found only for gender ($F(1, 154) = 10.758, p < 0.0001, \eta^2_p = 0.065$). Planned orthogonal contrasts and post-hoc analyses with "p-values" adjusted using Bonferroni correction revealed that males considered themselves more likely to be famous in the future compared to females ($M_M = 19.70, M_F = 16.40, F(1, 154) = 10.758, p < 0.0001, \eta^2_p = 0.065$).

Current Attainment of Fame: The Current Attainment of Fame domain asked participants to rate how much they think they have attained fame already in their lives. CSES Others ($F(1, 153) = 2.911, p = 0.090, \eta^2_p = 0.019$), CSES Looks ($F(1, 153) = 4.835, p = 0.029, \eta^2_p = 0.031$), GCOS Impersonal Orientation ($F(1, 153) = 25.904, p < 0.0001, \eta^2_p = 0.145$), MMCSI ($F(1, 153) = 10.277, p < 0.002, \eta^2_p = 0.063$) and ATSS ($F(1, 153) = 8.193, p = 0.005, \eta^2_p = 0.051$) were significant covariates such that the more contingent one's self esteem was on the approval of others and on appearance the more they felt they had already attained fame; the more they exhibited an impersonal orientation the less they thought they had attained fame and the more sexually liberal they were the more they thought they had attained fame. Main effects were found only for gender ($F(1, 153) = 5.418, p = 0.021, \eta^2_p = 0.034$). Planned orthogonal contrasts and post-hoc analyses with "p-values" adjusted using Bonferroni correction revealed that males felt they had attained more fame than females ($M_M = 14.46, M_F = 12.32, F(1, 153) = 5.418, p = 0.021, \eta^2_p = 0.034$).

Importance of Image: The Importance of Image domain asked participants to rate how important obtaining and maintaining a favourable personal image is for them. CSES Others ($F(1, 154) = 4.750, p = 0.031, \eta^2_p = 0.030$), CSES Looks ($F(1, 154) = 57.714, p < 0.0001, \eta^2_p = 0.279$), GCOS Controlled Orientation ($F(1, 154) = 28.167, p < 0.0001, \eta^2_p = 0.155$), and GCOS Impersonal Orientation ($F(1, 154) = 16.574, p < 0.0001, \eta^2_p = 0.098$) were significant covariates such that the more contingent one's self esteem was on

the approval of others and on appearance the more they felt that obtaining and maintaining a favourable personal image was important for them; the more they exhibited a controlled orientation the more important obtaining and maintaining a favourable personal was, and the more they exhibited an impersonal orientation the less important obtaining and maintaining a favourable personal was. Main effects were found only for gender ($F(1, 154) = 14.124, p < 0.0001, \eta^2_p = 0.084$). Planned orthogonal contrasts and post-hoc analyses with “p-values” adjusted using Bonferroni correction revealed that females felt that obtaining and maintaining a favourable image was more important for them compared to males ($M_M = 25.83, M_F = 30.46, F(1, 154) = 14.124, p < 0.0001, \eta^2_p = 0.084$).

Likelihood of Attaining Image: The Likelihood of Attaining Image domain asked participants to rate how likely they consider that in the future they will attain a favourable personal image. CSES Looks ($F(1, 153) = 29.475, p < 0.001, \eta^2_p = 0.162$), GCOS Controlled Orientation ($F(1, 153) = 12.2992, p < 0.0001, \eta^2_p = 0.074$), GCOS Impersonal Orientation ($F(1, 153) = 23.533, p < 0.0001, \eta^2_p = 0.143$), MMCSI ($F(1, 153) = 9.582, p = 0.002, \eta^2_p = 0.059$) and ATSS ($F(1, 153) = 7.420, p = 0.007, \eta^2_p = 0.046$) were significant covariates such that the more contingent one’s self esteem was on appearance the more they felt they were likely to attain and maintain a favourable personal image in the future; the more they exhibited a controlled orientation the more likely they thought they were to attain and maintain a favourable personal image in the future; the more they exhibited an impersonal orientation the less likely they thought they were to attain and maintain a favourable personal image in the future and the more sexually liberal they were the more likely they thought they were to attain and maintain a favourable personal image in the future. Main effects were found only for gender ($F(1, 153) = 8.477, p = 0.004, \eta^2_p = 0.052$). Planned orthogonal contrasts and post-hoc analyses with “p-values” adjusted using Bonferroni correction revealed that females felt they were more likely to attain a favourable personal image in the future ($M_M = 25.22, M_F = 28.20, F(1, 153) = 8.477, p = 0.004, \eta^2_p = 0.052$).

Intrinsic Aspirations

Importance of Meaningful Relationships: The Importance of Meaningful Relationships domain asked participants to rate how important is obtaining and maintaining meaningful relationships in their lives. CSES Looks ($F(1, 156) = 12.760, p < 0.0001, \eta^2_p = 0.076$) and GCOS Autonomy Orientation ($F(1, 156) = 9.705, p = 0.002, \eta^2_p = 0.059$) were significant covariates such that the more contingent one’s self esteem was

on appearance the more they felt meaningful relationships were important for their lives and the more they exhibited an autonomous orientation the more they felt meaningful relationships were important for their lives. Main effects were found only for gender ($F(1, 156) = 4.671, p = 0.032, \eta^2_p = 0.029$). Planned orthogonal contrasts and post-hoc analyses with “p-values” adjusted using Bonferroni correction revealed that females felt meaningful relationships were more important in their lives compared to males ($M_M = 45.46, M_F = 47.28, F(1, 156) = 4.671, p = 0.032, \eta^2_p = 0.029$).

Current Attainment of Meaningful Relationships: The Current Attainment of Meaningful Relationships domain asked participants to rate how much they think they have attained meaningful relationships in their lives. GCOS Impersonal Orientation ($F(1, 155) = 12.645, p < 0.0001, \eta^2_p = 0.075$), GCOS Autonomy Orientation ($F(1, 155) = 6.204, p = 0.014, \eta^2_p = 0.038$), and MMCSI ($F(1, 155) = 12.696, p < 0.001, \eta^2_p = 0.063$) were significant covariates such that the more individuals exhibited an autonomous orientation the more they felt they had attained a good level of meaningful relationships in their lives; the more they exhibited an impersonal orientation the less they felt they had attained a good level of meaningful relationships in their lives and the more sexually liberal they were the more they felt they had attained a good level of meaningful relationships in their lives. Main effects were found only for gender ($F(1, 156) = 5.856, p = 0.017, \eta^2_p = 0.036$). Planned orthogonal contrasts and post-hoc analyses with “p-values” adjusted using Bonferroni correction revealed that females felt had attained a better level of meaningful relationships in their lives compared to males ($M_M = 45.46, M_F = 47.28, F(1, 156) = 5.856, p = 0.017, \eta^2_p = 0.036$).

Importance of Community Contributions: The Importance of Community Contributions domain asked participants to rate how important it is to contribute positively and with a spirit of growth to the community around them. CSES Others ($F(1, 154) = 9.193, p = 0.003, \eta^2_p = 0.057$), GCOS Controlled Orientation ($F(1, 154) = 8.019, p = 0.005, \eta^2_p = 0.050$), GCOS Autonomy Orientation ($F(1, 154) = 22.751, p < 0.0001, \eta^2_p = 0.129$), MMCSI ($F(1, 154) = 8.349, p < 0.004, \eta^2_p = 0.052$) and ATSS ($F(1, 154) = 3.399, p = 0.067, \eta^2_p = 0.022$) were significant covariates such that the more contingent one’s self esteem was on the approval of others the more important it was to contribute positively and with a spirit of growth to the community around them; the more they exhibited a controlled orientation the less important it was to contribute positively and with a spirit of growth to the community around them; the more they exhibited an autonomous orientation the more important it was to contribute positively and with a

spirit of growth to the community around them and the more sexually liberal they were the more important it was to contribute positively and with a spirit of growth to the community around them. Marginal main effects were found only for gender ($F(1, 154) = 2.949, p = 0.088, \eta^2_p = 0.020$). Planned orthogonal contrasts and post-hoc analyses with “p-values” adjusted using Bonferroni correction revealed that males felt they had attained more fame than females ($M_M = 37.20, M_F = 39.32, F(1, 154) = 2.949, p = 0.088, \eta^2_p = 0.020$).

Current Attainment of Community Contributions: The Current Attainment of Community Contributions domain asked participants to rate how much they think they have already attained the ability to contribute positively and with a spirit of growth to the community around them. CSES Others ($F(1, 152) = 5.866, p = 0.017, \eta^2_p = 0.037$), CSES Performance ($F(1, 152) = 8.130, p = 0.005, \eta^2_p = 0.031$), GCOS Controlled Orientation ($F(1, 152) = 6.208, p = 0.014, \eta^2_p = 0.039$), GCOS Impersonal Orientation ($F(1, 152) = 3.188, p = 0.076, \eta^2_p = 0.021$), GCOS Autonomous Orientation ($F(1, 152) = 18.569, p < 0.0001, \eta^2_p = 0.109$), and MMCSI ($F(1, 152) = 5.838, p = 0.017, \eta^2_p = 0.037$) were significant covariates such that the more contingent one’s self esteem was on the approval of others the more they felt they had already attained the ability to contribute positively and with a spirit of growth to the community around them while the more contingent their self-esteem was on performance the less they felt they had already attained the ability to contribute positively and with a spirit of growth to the community around them; the more they exhibited a controlled and an impersonal orientation the less they felt they had already attained the ability to contribute positively and with a spirit of growth to the community around them, while the more they exhibited an autonomous orientation the more they felt they had already attained the ability to contribute positively and with a spirit of growth to the community around them; the more sexually liberal they were the more they felt they had already attained the ability to contribute positively and with a spirit of growth to the community around them. Main effects were found only for the advertising conditions ($F(3, 152) = 2.643, p = 0.051, \eta^2_p = 0.050$). Planned orthogonal contrasts (Helmert method) revealed that respondents in the clothed condition reported they felt they had attained the ability to contribute positively and with a spirit of growth to the community around them at a lower level compared to those in the semi-nude category ($t(152) = 2.575, p = 0.011$). All other categories showed no significant differences.

Importance of Health: The Importance of Health domain asked participants to rate how important being and staying healthy is in their lives. CSES Looks ($F(1, 154) = 9.919, p = 0.002, \eta^2_p = 0.061$), GCOS Impersonal Orientation ($F(1, 154) = 14.702, p < 0.0001, \eta^2_p = 0.087$), GCOS Autonomous Orientation ($F(1, 154) = 8.195, p = 0.005, \eta^2_p = 0.051$), and ATSS ($F(1, 154) = 6.300, p = 0.013, \eta^2_p = 0.039$) were significant covariates such that the more contingent one's self esteem was on appearance the more important being and staying healthy was; the more they exhibited an impersonal orientation the less important being and staying healthy was, while the more they exhibited an autonomous orientation the more important being and staying healthy was, and the more sexually liberal they were the more important being and staying healthy was. Marginal main effects were found for both gender ($F(1, 154) = 3.742, p = 0.055, \eta^2_p = 0.024$) and the advertising conditions ($F(3, 154) = 2.365, p = 0.073, \eta^2_p = 0.044$). Post-hoc analyses with "p-values" adjusted using Bonferroni correction revealed that females placed a higher importance on health compared to males ($M_M = 42.29, M_F = 44.22, F(1, 154) = 3.742, p = 0.055, \eta^2_p = 0.024$). Planned orthogonal contrasts (Helmert method) revealed that respondents in the semi-nude condition placed more importance on health compared to respondents in the clothed condition ($t(154) = 2.167, p = 0.032$) and that respondents in the clothed condition placed more importance on health compared to respondents in the product only condition ($t(154) = 1.657, p = 0.010$).

Current Attainment of Health: The Current Attainment of Health domain asked participants to rate how much they think they already have attained a stable and long-term level of healthiness in their lives. GCOS Impersonal Orientation ($F(1, 157) = 17.099, p < 0.0001, \eta^2_p = 0.098$) was the only significant covariate such that the more individuals exhibited an impersonal orientation the less they thought they had attained already attained a stable and long-term level of healthiness in their lives. Marginal main effects were found only for the advertising conditions ($F(3, 157) = 2.381, p = 0.072, \eta^2_p = 0.04$). Planned orthogonal contrasts (Helmert method) revealed that respondents in the semi-nude condition reported they felt they had attained a more stable and long-term level of healthiness in their lives compared to the respondents in the clothed condition ($t(157) = 2.426, p = 0.016$). All other categories showed no significant differences.

Table 8: Study 1 Results of 2x4 ANCOVAs for Extrinsic Aspirations

Predictors	Dependent Variables: Extrinsic Aspirations														
	Importance of Fame			Likelihood of Attaining Fame			Current Attainment of Fame			Importance of Image			Likelihood of Attaining Image		
	R ² = 26.3%			R ² = 31.4%			R ² = 30.7%			R ² = 50.4%			R ² = 42.3%		
	β	F (df); sig.	Partial η ²	β	F (df); sig.	Partial η ²	β	F (df); sig.	Partial η ²	β	F (df); sig.	Partial η ²	β	F (df); sig.	Partial η ²
Corrected Model	---	4.556 (12/153); p < 0.0001	---	---	6.395 (11/154); p < 0.0001	---	---	5.650 (12/153); p < 0.0001	---	---	16.402 (11/154); p < 0.0001	---	---	9.341 (12/153); p < 0.0001	---
Intercept	---	2.222 (1/153); p = 0.138	---	24.942	39.196 (1/154); p < 0.0001	0.203	15.216	20.329 (1/153); p < 0.0001	---	---	1.059 (1/154); p < 0.305	---	16.204	6.340 (1/153); p = 0.013	0.040
Mood	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
CSES Others	0.384	6.199 (1/153); p = 0.014	0.039	---	---	---	0.164	2.911 (1/153); p = 0.090	0.019	0.268	4.750 (1/154); p < 0.031	0.030	---	---	---
CSES Looks	0.381	5.965 (1/153); p = 0.016	0.038	0.372	13.289 (1/154); p < 0.0001	0.079	0.210	4.835 (1/153); p = 0.029	0.031	0.947	57.714 (1/154); p < 0.0001	0.273	0.633	29.475 (1/153); p < 0.0001	0.162
CSES Failure	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
CSES Performance	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
GCOS Controlled Orientation	0.106	5.127 (1/153); p = 0.025	0.032	---	---	---	---	---	---	---	28.167 (1/154); p < 0.0001	0.155	0.133	12.299 (1/153); p = 0.001	0.074
GCOS Impersonal Orientation	-0.082	4.687 (1/153); p = 0.032	0.030	-0.104	16.157 (1/154); p < 0.0001	0.095	-0.119	25.904 (1/153); p = 0.0001	0.145	-0.124	16.754 (1/154); p < 0.0001	0.098	-0.148	25.533 (1/153); p < 0.0001	0.143
GCOS Autonomous Orientation	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MMCSI	---	---	---	0.104	5.693 (1/154); p = 0.018	0.036	0.120	10.277 (1/153); p = 0.002	0.063	---	---	---	0.150	9.582(1/153); p = 0.002	0.059
ATSS	0.084	3.326 (1/153); p = 0.070	0.021	0.149	17.074 (1/154); p < 0.0001	0.100	0.089	8.193 (1/153); p = 0.005	0.051	---	---	---	0.114	7.420(1/153); p = 0.007	0.046
Condition	---	0.247 (3/153); p = 0.863	0.005	---	0.128 (3/154); p = 0.943	0.002	---	0.169 (3/153); p = 0.917	0.003	---	0.468 (3/154); p = 0.705	0.009	---	0.345 (1/153); p = 0.793	0.007
Gender	---	13.211 (1/153); p = 0.000	0.079	---	10.758 (1/154); p = 0.001	0.065	---	5.418 (1/153); p = 0.021	0.034	---	14.124 (1/154); p < 0.0001	0.084	---	8.477 (1/153); p = 0.004	0.052
Condition * Gender	---	1.119 (3/153); p = 0.343	0.021	---	1.486 (3/154); p = 0.221	0.028	---	1.449 (3/153); p = 0.231	0.028	---	0.913 (3/154); p = 0.436	0.017	---	0.736 (1/153); p = 0.532	0.014

Table 9: Study 1 Results of 2x4 ANCOVAs for Intrinsic Aspirations

Predictors	Dependent Variables: Intrinsic Aspirations																	
	Importance of Meaningful Relationships			Current Attainment of Meaningful Relationships			Importance of Community Contributions			Current Attainment of Community Contributions			Importance of Health			Current Attainment of Health		
	R ² = 19.7%			R ² = 27.5%			R ² = 32.5%			R ² = 38.1%			R ² = 27.3%			R ² = 17.0%		
	β	F (df); sig.	Partial η ²	β	F (df); sig.	Partial η ²	β	F (df); sig.	Partial η ²	β	F (df); sig.	Partial η ²	β	F (df); sig.	Partial η ²	β	F (df); sig.	Partial η ²
Corrected Model	---	4.264 (9/156); p < 0.0001	---	---	5.874 (10/155); p < 0.0001	---	---	6.136 (11/154); p < 0.0001	---	---	7.210 (13/152); p < 0.0001	---	---	5.267 (11/154); p < 0.0001	---	---	4.012 (8/157); p < 0.0001	---
Intercept	36.009	146.554 (1/156); p < 0.0001	0.484	11.376	1.474 (1/155); p = 0.227	0.009	15.973	5.886 (1/154); p = 0.016	0.037	8.974	1.581 (1/152); p = 0.211	0.010	39.767	49.366 (1/154); p < 0.0001	0.243	42.477	200.665 (1/157); p < 0.0001	0.561
Mood CSES Others	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
CSES Looks	-0.197	12.760 (1/156); p < 0.0001	0.076	---	---	---	---	---	---	---	---	---	-0.286	9.919 (1/154); p = 0.002	0.061	---	---	---
CSES Failure	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
CSES Performance	---	---	---	---	---	---	---	---	---	-0.453	8.130 (1/152); p = 0.005	0.051	---	---	---	---	---	---
GCOS Controlled Orientation	---	---	---	---	---	---	-0.090	8.019 (1/154); p = 0.005	-0.050	-0.066	6.208 (1/152); p = 0.014	0.039	---	---	---	---	---	---
GCOS Impersonal Orientation	---	---	---	-0.142	12.645 (1/155); p < 0.0001	0.075	---	---	---	-0.082	3.188 (1/152); p = 0.076	0.021	-0.091	14.702 (1/154); p < 0.0001	0.087	-0.151	17.099 (1/157); p < 0.0001	0.098
GCOS Autonomou s Orientation	0.590	9.705 (1/156); p = 0.002	0.059	0.144	6.204 (1/155); p = 0.014	0.038	0.177	22.751 (1/154); p < 0.0001	0.129	0.191	18.569 (1/152); p < 0.0001	0.109	0.095	8.195 (1/154); p = 0.005	0.051	---	---	---
MMCSI	---	---	---	0.222	12.696 (1/155); p < 0.0001	0.076	0.126	8.349 (1/154); p = 0.004	0.052	0.116	5.838 (1/152); p = 0.017	0.037	---	---	---	---	---	---
ATSS	---	---	---	---	---	---	0.068	3.399 (1/154); p = 0.067	0.022	---	---	---	0.076	6.300 (1/154); p = 0.013	0.039	---	---	---
Condition	---	0.371 (3/156); p = 0.774	0.007	---	0.291 (3/155); p = 0.832	0.006	---	0.517 (3/154); p = 0.671	0.010	---	2.643 (3/152); p = 0.051	0.050	---	2.365 (3/154); p = 0.073	0.044	---	2.381 (3/157); p = 0.072	0.044
Gender	---	4.671 (1/156);	0.029	---	5.856 (1/155);	0.036	---	2.949 (1/154);	0.019	---	0.329 (1/152);	0.002	---	3.742 (1/154);	0.024	---	0.382 (1/157);	0.002

		p = 0.032			p = 0.017			p = 0.055			p = 0.567			p = 0.055			p = 0.537	
Condition *	---	1.073 (3/156);	0.020	---	1.037 (3/155);	0.020	---	0.313 (3/154);	0.006	---	1.020 (3/152);	0.020	---	1.627 (3/154);	0.031	---	1.357 (3/157);	0.025
Gender		p = 0.362			p = 0.378			p = 0.816			p = 0.386			p = 0.186			p = 0.258	

6.6.2.2. Hypothesis 2: Motivation for Consumption and Hypothesis 3: Basic Needs Satisfaction

The Situational Motivation for Consumption Scale and the Basic Needs Scale were employed to test Hypotheses H2 and H3. According to H2 (please see "Objectives and Hypotheses of the Project" section) consumers were expected to exhibit a controlled Motivation for consuming goods and services when exposed to sexual imagery. Similarly according to H3 consumers were expected to exhibit lowered levels of satisfaction with their basic needs: a) Autonomy, b) Competence and c) Relatedness, when exposed to sexual imagery. Unfortunately neither of the Hypotheses was supported. Participants not only were not found to differ across the advertising conditions but also there were no observed differences across genders. The 2X4 ANCOVAs revealed that in terms of motivation for consumption and satisfaction with basic needs the consumers were not affected by changes in sexual imagery and both genders reported very similar types and motivation for consumption as well as satisfaction with basic needs.

These results are discussed upon in the general discussion part of the theses combined with the relevant results from study 2.

6.6.2.3. Hypothesis 4: State Self-Esteem

The State Self-Esteem Scale (SSES) was employed to test Hypothesis H4. According to H4 (please see "Objectives and Hypotheses of the Project" section) consumers were expected to exhibit lowered State Self-Esteem when exposed to sexual imagery. Since The SSES comprised of multiple domains H4 respectively expected that self-esteem would be lowered across all domains. The hypothesis was essentially not supported in its current form. First of all not all domains of self-esteem were found to differ across either gender or across the advertising conditions encompassing the increasing levels of sexual imagery. Respondents (please see the summary ANCOVA results in Table 10 for SSES) did not exhibit any differences across gender and advertising conditions for the domain of Image related self-esteem. In the remaining three domains (namely Appearance related self-esteem, Performance related self-esteem and General Self self-esteem) the respondents differed both across gender and advertising conditions only in the Appearance related self-esteem domain while in the Performance related self-esteem and General Self self-esteem domains only differences across genders were observed. In the appearance related self-esteem domain where differences were observed the pattern of

the reported differences does exhibit consistent lowering of self-esteem across conditions of sexual imagery but instead a U-shaped pattern is reported. Therefore the Hypothesis cannot be supported in its current form. The U-shaped pattern is briefly discussed in the discussion section of the present study and then elaborated fully in the general discussion section.

The following paragraphs describe the results in detail.

SSES Looks: The SSES Looks sub-factor asked participants to rate their current level of appearance related self-esteem. CSES Looks ($F(1, 154) = 5.662, p = 0.019, \eta^2_p = 0.035$), GCOS Impersonal Orientation ($F(1, 154) = 5.705, p = 0.018, \eta^2_p = 0.036$), GCOS Autonomous Orientation ($F(1, 154) = 2.844, p = 0.094, \eta^2_p = 0.018$) and MMCSI ($F(1, 154) = 3.195, p = 0.076, \eta^2_p = 0.020$) were significant covariates such that the more contingent one's self esteem was on appearance the lower their self-esteem was; the more individuals exhibited an impersonal orientation the lower their self-esteem was, while the more they exhibited an autonomous orientation the higher their self-esteem was; similarly the more sexually liberal individuals were the higher their self-esteem. Marginal main effects were found for the advertising conditions ($F(3, 154) = 2.422, p = 0.068, \eta^2_p = 0.045$) and robust main effects were found for gender ($F(1, 154) = 13.463, p < 0.0001, \eta^2_p = 0.080$). Post-hoc analyses with "p-values" adjusted using Bonferroni correction revealed that males reported much higher levels of appearance related self-esteem placed higher importance on fame compared to females ($M_M = 32.16, M_F = 26.15, F(1, 154) = 13.463, p < 0.0001, \eta^2_p = 0.080$). Planned orthogonal contrasts (Helmert method) revealed that respondents in the clothed condition reported significantly lower appearance related self-esteem compared to respondents in the product only ($t(154) = 2.000, p = 0.050$) as well as from the nude condition ($t(154) = 1.810, p = 0.072$).

SSES Performance: The SSES Performance sub-factor asked participants to rate their current level of performance related self-esteem. CSES Performance ($F(1, 156) = 4.377, p = 0.038, \eta^2_p = 0.027$) and GCOS Impersonal Orientation ($F(1, 156) = 14.250, p < 0.001, \eta^2_p = 0.084$) were significant covariates such that the more contingent one's self esteem was on performance the lower their self-esteem was and the more individuals exhibited an impersonal orientation the lower their self-esteem was. Main effects were found only for gender ($F(1, 156) = 3.955, p = 0.048, \eta^2_p = 0.025$). Planned orthogonal contrasts and post-hoc analyses with "p-values" adjusted using Bonferroni correction revealed that males experienced higher performance related self-esteem compared to females ($M_M = 41.32, M_F = 36.39, F(1, 156) = 3.955, p = 0.048, \eta^2_p = 0.025$).

SSES General Self: The SSES General Self sub-factor asked participants to rate their current level of general self-esteem. CSES Failure ($F(1, 153) = 9.500, p = 0.002, \eta^2_p = 0.058$), GCOS Impersonal Orientation ($F(1, 153) = 14.223, p < 0.0001, \eta^2_p = 0.085$), GCOS Autonomous Orientation ($F(1, 153) = 11.129, p = 0.002, \eta^2_p = 0.068$), MMCSI ($F(1, 153) = 20.468, p < 0.0001, \eta^2_p = 0.118$) and ATSS ($F(1, 153) = 9.716, p = 0.032, \eta^2_p = 0.030$) were significant covariates such that the more contingent one's self esteem was on failure the lower their self-esteem was; the more individuals exhibited an impersonal orientation the lower their self-esteem was, while the more they exhibited an autonomous orientation the higher their self-esteem was; similarly the more sexually liberal individuals were the higher their self-esteem. Main effects were found only for gender ($F(1, 153) = 4.692, p = 0.032, \eta^2_p = 0.030$). Planned orthogonal contrasts and post-hoc analyses with "p-values" adjusted using Bonferroni correction revealed that males experienced higher general related self-esteem compared to females ($M_M = 19.67, M_F = 18.10, F(1, 153) = 4.692, p = 0.032, \eta^2_p = 0.030$).

Table 10: Study 1 Results of 2x4 ANCOVAs for State Self-Esteem Scale

Predictors	Dependent Variables: State Self Esteem								
	SSES Looks			SSES Performance			SSES General Self		
	R ² = 29.0%			R ² = 21.4%			R ² = 4.3.5%		
	β	F (df); sig.	Partial η ²	β	F (df); sig.	Partial η ²	β	F (df); sig.	Partial η ²
Corrected Model	----	5.709 (11/154); p < 0.0001	----	----	4.708 (9/156); p < 0.0001	----	----	9.813(12/153); p < 0.0001	----
Intercept	21.150	7.576 (1/154); p = 0.007	0.047	58.711	161.258 (9/156); p < 0.0001	0.508	9.935	7.824 (12/153); p = 0.006	0.049
Mood	----	----	----	----	----	----	----	----	----
CSES Others	----	----	----	----	----	----	----	----	----
CSES Looks	-0.356	5.662 (1/154); p = 0.019	0.035	----	----	----	----	----	----
CSES Failure	----	----	----	----	----	----	-0.208	9.500 (12/153); p = 0.002	0.058
CSES Performance	----	----	----	-0.339	4.377 (1/156); p = 0.038	0.027	----	----	----
GCOS Controlled Orientation	----	----	----	----	----	----	----	----	----
GCOS Impersonal Orientation	-0.091	5.705 (1/154); p = 0.018	0.036	-0.0157	14.250 (1/156); p < 0.0001	0.084	-0.061	14.223 (1/153); p < 0.0001	0.085
GCOS Autonomous Orientation	0.094	2.844 (1/154); p = 0.094	0.018	----	----	----	0.075	11.129 (1/153); p = 0.3001	0.068
MMCSI	0.109	3.195 (1/154); p = 0.076	0.020	----	----	----	0.118	20.468 (1/153); p < 0.0001	0.118
ATSS	----	----	----	----	----	----	0.067	9.716 (1/153); p = 0.002	0.060
Condition	----	2.422 (3/154); p = 0.068	0.045	----	0.409. (3/156); p = 0.747	0.008	----	0.441 (3/153); p = 0.724	0.009
Gender	----	13.463 (1/154); p < 0.0001	0.080	----	3.955 (1/156); p = 0.048	0.025	----	4.692 (1/153); p = 0.032	0.030
Condition * Gender	----	0.939 (3/154); p = 0.424	0.018	----	1.181 (3/156); p = 0.319	0.022	----	0.495 (3/153); p = 0.686	0.010

6.6.2.2.4. Hypothesis 5: Body (Dis)satisfaction

The Body Image States Satisfaction scale was employed to test Hypothesis H5. According to H5 (please see "Objectives and Hypotheses of the Project" section) consumers were expected to exhibit lowered Body Satisfaction when exposed to sexual imagery. The hypothesis was partially supported. The 2x4 ANCOVA (please see the summary ANCOVA results in Table 11 for BISS) reported differences in BISS both across conditions as well as across genders. However the observed results do not exhibit consistent lowering of BISS across conditions of sexual imagery but instead a U-shaped pattern is reported. BISS scores fall from the product only to the clothed category and then are raised upwards from the clothed to the semi-nude and nude condition. Therefore the Hypothesis is only partially supported. The U-shaped pattern that is common in the SSES as well is briefly discussed in the discussion section of the present study and then elaborated fully in the general discussion section.

The following paragraph describes the results in detail.

The BISS asked participants to rate their current level of satisfaction with their body. MMCSI ($F(1, 156) = 12.646, p < 0.001, \eta^2_p = 0.075$) and ATSS ($F(1, 156) = 4.999, p = 0.027, \eta^2_p = 0.031$) were significant covariates such that the more sexually liberal individuals were the higher their BISS. Main effects were found for the advertising conditions ($F(3, 156) = 3.364, p = 0.020, \eta^2_p = 0.061$) and gender ($F(1, 156) = 15.769, p < 0.0001, \eta^2_p = 0.092$). Post-hoc analyses with "p-values" adjusted using Bonferroni correction revealed that males experienced significantly higher body satisfaction compared to females ($M_M = 37.51, M_F = 32.10, F(1, 156) = 15.769, p < 0.0001, \eta^2_p = 0.092$). Planned orthogonal contrasts (Helmert method) revealed that respondents in the nude condition reported higher body satisfaction compared to respondents in the semi-nude condition ($t(156) = 2.367, p = 0.019$) and that respondents in the clothed condition reported lower body satisfaction compared to respondents in the product only condition ($t(156) = 1.800, p = 0.074$).

Table 11: Study 1 Results of 2x4 ANCOVAs for Body Image States Scale

	Dependent Variables: Body Image State Satisfaction		
	Body Image State Satisfaction		
	R ² = 22.6%		
Predictors	β	F (df); sig.	Partial η^2
Corrected Model		5.067 (9/156); p < 0.0001	
Intercept	28.995	42.538 (1/156); p < 0.0001	0.214
Mood	----	----	----
CSES Others	----	----	----
CSES Looks	----	----	----
CSES Failure	----	----	----
CSES Performance	----	----	----
GCOS Controlled Orientation	----	----	----
GCOS Impersonal Orientation	----	----	----
GCOS Autonomous Orientation	----	----	----
MMCSI	0.220	12.646 (1/156); p < 0.0001	0.075
ATSS	0.118	4.999 (1/156); p = 0.027	0.031
Condition	----	3.364 (3/156); p = 0.020	0.061
Gender	----	15.769 (1/156); p < 0.0001	0.092
Condition * Gender	----	0.955 (3/156); p = 0.416	0.018

6.7. Brief Discussion

The results partially corroborate previous research on the effects of the 'thin ideal' and the 'masculine' ideal on individuals (cf. Halliwell, Dittmar and Osborne, 2007; Halliwell and Dittmar, 2004). However they extend the literature by showing that even though consumers suffer heightened body dissatisfaction under particular conditions when the ideal of beauty becomes explicitly unattainable, cognitive and affective mechanisms are employed in a reactory manner so that their confidence re-surges. When the participants were exposed to the nude and semi-nude condition they became more critical of their evaluations regarding the portrayed models and the possible representations carried therefore. In fact in several cases the participants suggested they could actually pose better than the models or that the images shown were simply fake – airbrushed (Table 5 and Table 6 report the compensating statements per gender and across advertising conditions). Of course no image was manipulated at all by the researcher. The U-shaped effect of the conditions of sexual imagery on both body dissatisfaction as well as SSES Looks are important since they elucidate compensatory cognitive and affective mechanisms of self-affirmation, even if that partially comes from a reactive, defensive derogation of others (i.e. the models portrayed) (Fein and Spencer, 1997).

The results of the present study also further corroborate previous research suggesting that females do tend to be increasingly pre-occupied with appearance concerns compared to their male counterparts (cf. Mask and Blanchard, 2011a; Pelletier and Dion, 2007).

The preoccupation of males with fame is something unique to the present study and could be related to either some particular pre-occupation in the specific sample of the study or is something that should be investigated further.

The results of the study show that for all the negative effects of sexual imagery on body dissatisfaction and self-esteem there might actually be a positive light on their effect. The investment in the importance of health increases with increasing levels of sexual imagery hence one can suggest that either pre-occupation with particular beauty ideals pushes participants to invest more in their health (viz. health equals a masculine or thin body) in an attempt to attain these ideals or that with the increasing levels of sexual imagery participants adopt a mating profile and therefore invest in their health (viz. the healthier one is, the more chances are available for mating).

The results are further elaborated and contrasted with the results of study in the general discussion section.

CHAPTER 7

7. STUDY 2: INTERNATIONAL SAMPLE

7.1. Method

7.1.1. Design

The purpose of the second study was to expand the results of the first study and investigate whether the observed patterns in the UK sample would be replicated in an international sample. The demarcating difference between the two samples was the fact that all participants in the UK sample were raised in the UK and therefore were exposed since early childhood in western type and content advertisements (both in terms of levels of nudity as well as in terms of beauty standards) while the International sample were raised in eastern countries where one finds typically more conservative representations of sexual imagery in advertising (less nudity and more romantic connotations) and individuals are more easily offended by such representations (Fam, Waller, Ong and Yang, 2008). The design and materials of the second study were replicated exactly from the first study to assure comparability. The following paragraphs describe the relevant results from study two while retaining in certain cases a reiteration of the procedural details.

As in study one, study two employed a between-subjects pre- and post-test quasi-experimental 2x4 full factorial design. The independent (between subjects) variables were kept the same: sexual imagery levels in advertisements (3 levels of nudity: Nude, Semi-Nude and Clothed including a control group with product only advertisements) and gender (male-female) (creating in essence 8 conditions). The pre-test questionnaire again measured the same individual differences variables: Mood (Peterson and Sauber, 1983), General Causality Orientations (Deci and Ryan, 1985b), Contingent Self Esteem (Paradise, 2001), The Multidimensional Measure of Comfort with Sexuality Short Form (Tromovitch, 2000) and the Attitudes Toward Sexuality Scale (Fisher and Hall, 1988). The measured outcome variables were Life Aspirations (21 composite variables) (Kasser and Ryan 1993; 1996), Situational Motivation for consumption (four composite variables) (SIMS: Guay, Vallerand and Blanchard, 2000), State Self Esteem (four composite variables) (Heatherton

and Polivy, 1991), Body Image State Dissatisfaction (one composite variable) (Cash, Fleming, Alindogan, Steadman and Whitehead, 2002) and Basic Needs Satisfaction (three composite variables) (Deci and Ryan, 2000).

7.1.2. Participants

The sample (see Table 12 for the summary statistics of the demographic variables) comprised of 91 male and female undergraduate university students ($n=34$ and $n=57$ respectively) with a mean age of 21.38 years old ($s.d. = 1.91$). The majority of the sample was born and raised in China ($n=32$), followed by India ($n=18$), and South-East Asia ($n=41$). All participants were raised in their respective countries of origin. As in study one, participants were recruited from a variety of schools and departments across the University, following a University-wide invitation to participate. The majority of the participants were here for their masters studies ($n=42$), followed by first year students ($n=25$), second year students ($n=15$) and third year students ($n=9$) (this pattern also explains why the international sample was relatively older than the UK sample (Chi-square (78) = 166.301, p -value < 0.0001). Participants also reported on their religion with the majority reporting no religious affiliation ($n=43$), followed by a Christian affiliation ($n=18$), Hinduism ($n=16$), Buddhism ($n=10$) and Islam ($n=3$). Most of the participants also reported that despite their familial religious affiliation they did not any more practice their religion ($n=54$); of the remaining participants who still practiced their religious affiliation ($n=37$) the majority attended religious service 1-5 times a year ($n=25$) followed by 6-12 times a year ($n=10$), 2-3 times a month ($n=4$), once a week ($n=6$) and more than once a week ($n=5$). Compared with the UK sample the international sample reported a greater proportion of participants practicing their religion (Chi-square (1) = 14.600, p -value < 0.0001) but not a greater proportion of participants practicing their religion more often (Chi-square (5) = 8.805, p -value = 0.117). Similar to the UK sample participants who reported attendance but no practice did so as occasionally they would accompany a family member or partner to religious services mainly during popular public celebrations. As in the UK sample all participants lived in close proximity of the University campuses.

All participants for study two were recruited through a generalised University-wide invitation to participate in the study. In order to isolate international participants, the e-mail invitation asked for participants born and raised outside the UK (maximum 3 years UK domicile – the average length of undergraduate studies). Participants were recruited using the same University-wide internal e-mailing system as in the case of the UK sample

and were asked to individually book their preferred date and time using the University's virtual learning environment (moodle) using the same mock module that was previously created which gave the participants the opportunity to register for their preferred date and time following procedures similar to those used for booking tutorial places in normal taught modules. Similar to the UK sample all participants responded positively to the system and all places were booked early. Participants were reimbursed for their participation with the same flat reward of £10 for approximately one hour or as long as participants needed to complete the experimental tasks. In the international sample it was even more important to minimise a self-selection bias based on pre-existing concerns regarding exposure to sexual imagery as well as regarding completing questionnaires dealing with body dissatisfaction and self-esteem. Thus, all procedures were followed strictly and tightly to ensure maximum participant retention. As in the UK sample recruitment the study was advertised as a study on 'Memory and Advertising' designed to investigate the interaction of consumers with a given set of advertisements for a variety of products (see Procedure below for more details on the recruitment process).

Table 12: Study 2 Sample's Socio-demographic Profile, %, N=91

Gender	Male 37.4	Female 62.6			
Age	18 11	19 9.9	20 9.9	21 15.4	<=22 53.8
Year of Study	1 st 27.5	2 nd 16.5	3 rd 9.9	Masters 46.2	
Country of Origin*	China 35.2	India 19.8	South-East Asia** 45		
Religion they were brought up into	Christianity 19.8	Hinduism 17.6	Islam 3.3	Buddhism 12.1	None 47.3
Whether they practice their religion	No 59.3	Yes 40.7			
How often do they attend religious services	Never 45.1	1-5 times a year 27.5	6-12 times a year 11	2-3 times a month 4.4	Once a week or more 12.1

**: All participants were raised in their respective countries of origin

*: South – East Asia includes: Indonesia (n=7), Singapore (n=5), Sri-Lanka (n=4), Taiwan (n=3), Thailand (n=5), Vietnam (n=9), Hong Kong (n=4), Malaysia (n=4)

7.1.3. Experimental Stimuli

Study two employed exactly the same stimuli that were used for study one. The same eight advertising booklets each containing 16 advertisements and each corresponding to the 2x4 between the subjects design were distributed during the

experiment to the relevant audiences (namely: Male-Nude, Male-Semi-Nude, Male-Clothed, Female-Nude, Female-Semi-Nude, Female-Clothed and Product only booklets). In order to ascertain that the results of the study were not due to the type of the models or the general design of the ads used as stimuli (as aforementioned the advertising stimuli consisted of full A4 page colour mock ads designed explicitly for the experiment with researcher created copy, English language brand-names and western models in varying stages of undress) participants were questioned during the pilot study (described below) regarding the stimuli's attractiveness and likeability (for a detailed description of the stimuli please see the same section in study one).

7.1.4. Procedure

As aforementioned in the participants' description section the recruitment procedure for participants followed the recruitment procedure of study one. Participants were invited to participate in the study through a University-wide generalised email and the use of the University's virtual learning environment. The same teaching rooms used for the execution of the experiments in study one were used for the experiments in study two, but of course at different times. Once again participants were provided with all the material necessary to complete the experiments.

The exact same procedures were followed for social desirability response bias and possible cross-contamination effects between participants. Participants were seated with at least one empty seat in between them in the same line of desks and at least one empty row in between them at different rows of desks. The researcher welcomed the participants, explained the purpose of the experiment and the different tasks that participants had to complete under the impression that they were participating in a study on 'Memory and Advertising'. The participants signed and dated the information and consent form⁵⁴ as necessitated by the ethics procedures of Nottingham University Business School and then followed on to the rest of the experiment. Because participants were of international backgrounds the use of dictionaries in any form was allowed during the experiments. This act strengthened the effort to make participants feel safe. As in study one participants first completed the questionnaire that gathered the individual differences variables pre-exposure to the experimental stimuli. Average completion time of the individual differences questionnaires was approximately fifteen minutes, slightly

⁵⁴ One male participant decided to leave the experiment in the middle of the process after seeing the advertising stimuli because he found them too offensive. The participant's data were deleted from any further analyses.

higher than the UK sample; participants were randomly assigned to view one of the eight advertising stimuli (booklets) always separating between males and females so that each participant received a booklet that was relevant to their gender. Participants were asked to spend time browsing through the ads as they would the pages of a magazine; but to pay attention to and interact with the advertisements as attentively as they could since they would be queried on the booklets' contents later. The researcher timed the task so that each participant spent ten minutes with the advertising stimuli, exactly the same amount of time as in the UK sample to ensure that possible differences in patterns between the two samples were not related to different exposure times. After browsing through the advertising stimuli participants were given the same memory retention exercise (cognition and affect generation) as in the UK sample which asked participants to first write down all thoughts they had regarding the images contained in the advertisements they just browsed and second write down all thoughts they had regarding themselves as a result of exposure to the advertisements (Shiv, Edell, and Payne 1997). Participants then completed the post-exposure questionnaire containing the dependent measures as well as their demographic information. Again at the end of the experiment participants were thanked for their participation, were asked to sign the reimbursement form to receive the £10 reward for their participation and were debriefed and queried on their possible suspicions as to the real goal of the study. No participants suspected the hypotheses being tested.

Again as in study one in order to minimise social desirability response bias as well as possible experimenter effects the researcher remained for the duration of the study outside the room in a neighbouring space. Most participants remained seated during the whole process.

7.2. Pilot Study

As aforementioned a pilot study was executed prior to the roll out of the main experiments. Since study two was executed after study one the main purpose of the pilot study was not to investigate comprehension issues but more so timing issues and even more participant reactions regarding the advertising stimuli. Because of the international background of the sample but the western type models used in the advertisements, the pilot study sought to ensure that possible results and possible difference that would emerge between the UK sample and the international sample could not be attributable to different perceptions regarding model attractiveness, likeability and preferences. For that

reason 24 international master's students and doctoral candidates from Asian countries were recruited to complete the experiments while being timed and asked to comment generally on anything that could be improved and should change in terms of language and comprehension and second to comment on whether the models used and the design of the advertisements were to be considered unattractive, not likeable or otherwise problematic for non-western participants.

The pilot study showed no added comprehension issues or other typographical mistakes to the ones identified by the UK pilot sample. Timing was recorded and as in the main study (see procedure above) the researcher observed that the average time of completion was slightly higher by approximately 5-10 minutes for the whole experiment. The changed wording of the memory retention exercise (as changed per the UK study pilot) served the international participants well. Similarly females were seated in one section and males in another section of the room.

The additional questioning regarding the attractiveness, likeability and preferences about the models and the western type advertising stimuli did not reveal any particular problems. During the debriefing and commenting process of the pilot study the participants indicated that despite the fact that these advertisements were westernised and therefore the facial and bodily characteristics were not necessarily similar to print advertisements in their respective countries this was not a problem since participants were not unfamiliar with similar advertisements, either because a lot of multinational companies engage in global campaigns therefore exposing participants to western models and advertising or because they found access to such advertisements through the internet as well as their current stay in the UK. All participants agreed that the models did not pose any particular challenges in terms of attractiveness, likeability or preference as well as the ads.

Following the successful execution of the pilot study the research moved forward with the main study.

7.3. *Constructs and Measures*

As study two is a replication of study one all the independent and dependent measures used were the same. Therefore the following paragraphs do not discuss in detail the types of independent measures used and their justification but simply report their relevant assessed reliability (please see the same section in study one for a detailed

explanation of the relevant measures used). As in study one the pre-test questionnaire included a range of individual differences variables and the post-test questionnaire contained the dependent measures as well as the manipulation check questions.

7.4. Individual Differences and Covariate Variables

7.4.1. Mood⁵⁵

The 'Mood Short Form: MSF' (Peterson and Sauber, 1983) was used to capture participants' mood. As in study one participants rated each statement on a scale from 1 – Strongly Disagree to 10 – Strongly Agree. Following the same procedure as in study one after reversal of the relevant items (the MSF contains two reverse scored items) the MSF was summed (with a minimum of 4 to a maximum of 40) to form a continuous index of Mood whereby higher scores denote greater positive Mood. The scale mean for the overall sample was 31.65 (out of a maximum 40; s.d. = 5.650) denoting a high positive mood across participants. Cronbach α was 0.850 denoting a very strong internal consistency of the scale. Participants in the international sample did not differ in their respective mood score compared to participants from the UK sample (MD (I-UK) = 0.913. $t(df)^{56} = 1.237 (255)$, p -value = 0.213).

7.4.2. General Causality Orientations⁵⁷

The 'General Causality Orientations Scale (GCOS)' (Deci and Ryan, 1985b) was used to capture participants' levels of general trait level self-determination. Participants rated the GCOS as in study one across the 17 vignettes and 51 Likert-type items scored from 1 – Very Unlikely to 10 – Very Likely and the scale was summed to form the three causality orientations: Autonomy orientation, Controlled Orientation and Impersonal Orientation higher scores denote higher levels of presence of each orientation (with a minimum of 17 to a maximum of 170). The scale means for the overall sample were 132.184 (out of a maximum 170; s.d. = 15.162) for the Autonomy orientation⁵⁸, 100.84 (out of a maximum

⁵⁵ Please see Question 1 in the pre-exposure questionnaire in Appendix 6 for the items of the scale.

⁵⁶ In all t-test comparisons between the International and the UK sample all Levene's tests for equality of variances were found to hold (i.e. they were non-significant) unless otherwise mentioned.

⁵⁷ Please see Question 3 in the pre-exposure questionnaire in Appendix 6 for the items of the scale.

⁵⁸ Sum of responses Q3.1.c, Q3.2.c, Q3.3.a, Q3.4.b, Q3.5.b, Q3.6.b, Q3.7.c, Q3.8.c, Q3.9.b, Q3.10.b, Q3.11.a, Q3.12.a, Q3.13.a, Q3.14.c, Q3.15.a, Q3.16.a, Q3.17.a

170; s.d. = 13.974) for the Controlled Orientation⁵⁹ and 79.89 (out of a maximum 170; s.d. = 15.658) for the Impersonal Orientation⁶⁰, denoting that generally the participants exhibit relatively high autonomous causality orientations, followed by controlled causality orientations and impersonal orientations suggesting that participants are firstly orientated towards aspects of the environment that stimulate intrinsic motivations and sequentially towards extrinsic contingencies or consider achieving outcomes a matter of luck. Cronbach α was 0.800 for the Autonomy orientation, 0.614 for the Controlled Orientation and 0.670 for the Impersonal Orientation denoting an adequate internal consistency for all scales. Participants in the international sample were marginally less autonomy oriented compared to the UK sample (MD (I-UK) = -3.500, $t(df) = 1.840$ (255), p -value = 0.067), marginally more control oriented compared to the UK sample (MD (I-UK) = 3.940, $t(df) = 1.999$ (255), p -value = 0.047), and marginally non-significantly different in terms of impersonal orientation (MD (I-UK) = -3.500, $t(df) = 1.554$ (255), p -value = 0.122).

7.4.3. Contingent Self Esteem⁶¹

The 'Contingent Self-Esteem Scale' (CSES) (Paradise and Kernis, 2002; Paradise, 2001) was used to capture participants' levels of contingent self-esteem. Participants rated the CSES across its fifteen Likert-type items from 1 – Not at all like me to 10 – Very much like me. Because the CSES in the study was found to perform better not as a whole scale (as initially proposed by Paradise (2001)) but as a four factor solution with underlying facets of contingent self-esteem being expressed, the same solution was implemented in study two⁶². The same four factors (namely: CSES Looks, CSES Others, CSES Failure and CSES Performance) were extracted. Table 13 below presents the factorial structure adopted as well as the relevant Cronbach α across factors; means and standard deviations are given for both items and factors. Factor scores were created by summing the individual relevant items such that higher scores denote higher contingency of the self-esteem upon the relevant domain. The factor scores denote that the participants exhibit first of all high contingent self-esteem upon performance, then upon their looks, then upon approval by others and finally upon failure. Cronbach α ranges

⁵⁹ Sum of responses Q3.1.b, Q3.2.a, Q3.3.b, Q3.4.c, Q3.5.c, Q3.6.a, Q3.7.a, Q3.8.b, Q3.9.a, Q3.10.a, Q3.11.b, Q3.12.b, Q3.13.c, Q3.14.a, Q3.15.c, Q3.16.c, Q3.17.c

⁶⁰ Sum of responses Q3.1.a, Q3.2.b, Q3.3.c, Q3.4.a, Q3.5.a, Q3.6.c, Q3.7.b, Q3.8.a, Q3.9.c, Q3.10.c, Q3.11.c, Q3.12.c, Q3.13.b, Q3.14.b, Q3.15.b, Q3.16.b, Q3.17.b

⁶¹ Please see Question 2 in the pre-exposure questionnaire in Appendix 6 for the items of the scale.

⁶² The researcher actually tested the CSES anew in the international sample. The scale as a whole again had a Very low Cronbach α . The four factor solution that emerged in study one emerged in the international sample as well without having to constrict the analysis or make any changes whatsoever.

from 0.760 for CSES Looks to 0.600 for CSES Performance denoting an adequate internal consistency for all scales. Participants' self-esteem in the international sample was significantly less contingent on Performance (MD (I-UK) = -1.635, $t(df) = 3.172(255)$, p -value = 0.003), marginally significantly less contingent on looks (MD (I-UK) = -1.100, $t(df) = 1.706(255)$, p -value = 0.089), significantly less contingent on the approval of others (MD (I-UK) = -2.100, $t(df) = 3.030(255)$, p -value = 0.003) and significantly more contingent on failure (MD (I-UK) = 3.62, $t(df) = 5.860(255)$, p -value < 0.0001).

Table 13: Study 2 Factor Analytic Structure for CSES.

Code	Questionnaire Scale Items	Factor Label	Factors**				Mean / SD
			1	2	3	4	
Q2_14	My overall feelings about myself are heavily influenced by how good I look.	CSES Looks	0.873				5.50 / 2.062
Q2_6	An important measure of my worth is how physically attractive I am.		0.820				6.04 / 2.140
Q2_8	If I am told that I look good, I feel better about myself in general.		0.500				7.40 / 1.503
Q2_4	My overall feelings about myself are heavily influenced by how much other people like and accept me.	CSES Others		0.910			5.70 / 2.401
Q2_5	If I get along well with somebody, I feel better about myself overall.			0.820			7.10 / 1.824
Q2_7	My overall feelings about myself are heavily influenced by what believe other people are saying or thinking about me.			0.540			5.32 / 2.323
Q2_15*	Even in the face of rejection, my feelings of self-worth remain unaffected.	CSES Failure			0.610		6.31 / 2.064
Q2_2*	Even in the face of failure, my feelings of self-worth remain unaffected.				0.530		5.62 / 2.225
Q2_9*	My feelings of self-worth are basically unaffected when other people treat me badly.				0.852		5.90 / 2.222
Q2_3	A big determinant of how much I like myself is how well I perform up to the standards that I have set for myself.	CSES Performance				0.660	6.90 / 2.273
Q2_1	An important measure of my worth is how competently I perform.					0.770	7.34 / 1.809
Q2_12	When my actions do not live up to my expectations, it makes me feel dissatisfied with myself.					0.720	7.40 / 1.824
Cronbach Alpha			0.760	0.750	0.662	0.600	
Eigenvalues***			2.748	2.924	2.272	2.032	
Mean/ SD			18.90 / 4.724	18.11 / 5.365	17.80 / 5.030	21.60 / 4.392	
KMO			0.730				
Bartlett's Test of Sphericity			Chi-Square = 357.466, df. = 66, Sig. <0.0001				
% of Variance explained			66.64%				

*: Questions 2, 9 and 15 were reversed scored due to being items phrased with opposite valence so that higher scores denote higher contingent self-esteem.

** : Maximum Likelihood Estimation Method with Oblimin Rotation (Kaiser Normalisation). Factors are correlated. Model is statistically significant: Chi-Square = 37.861, df = 24, Sig. = 0.036

***: When factors are correlated, sums of rotated squared loadings cannot be added to obtain a total variance

7.4.4. Sexual Liberalism⁶³

The 'Multidimensional Measure of Comfort with Sexuality Short Form: MMCSI' (Tromovitch, 2000) and the 'Attitudes Toward Sexuality Scale: ATSS' (Fisher and Hall, 1988) were used to capture participants' levels of sexual liberalism. Participants rated MMCSI and ATSS from 1 – Very Unlikely to 10 – Very Likely. After reverse scoring the relevant items both MMCSI and ATSS were summed to create continuous measures of sexual liberalism. As in study one and also in study two the ATSS item referring to prostitution was problematic and therefore was removed from any further analyses. The MMCSI⁶⁴ score average was 54.15 (out of a maximum 90; s.d. = 16.360) denoting participants were comfortable with their sexuality. Cronbach α was 0.864 denoting a strong internal consistency of the scale. The ATSS⁶⁵ score average was 76.95 (out of a maximum 120; s.d. = 15.853) denoting participants had liberal attitudes towards sex. Cronbach α was 0.750 denoting a good internal consistency of the scale. Participants in the international sample as expected were found to be significantly more sexually conservative compared to the UK sample (MMCSI: MD (I-UK) = -10.300, $t(df) = 5.581(255)$, $p\text{-value} < 0.0001$; ATSS: MD (I-UK) = -20.100, $t(df) = 9.997(255)$, $p\text{-value} < 0.0001$).

7.5. Dependent/Outcome Variables

As aforementioned the exact same dependent and independent variables were used in study two as in study one. Following the report pattern of the independent variables section the following paragraphs do not discuss in detail the types of outcome measures used and their justification but simply report their relevant assessed reliability (please see the same section in study one for a detailed explanation of the relevant outcome measures used).

7.5.1. Life Aspirations⁶⁶

The 'Aspirations Index' (Kasser and Ryan, 1996) was used to capture the aspirations of the participants after exposure to the experimental stimuli. As in study one

⁶³ Please see Question 4 in the pre-exposure questionnaire in Appendix 6 for the items of the scale.

⁶⁴ Sum of Q4.1 to Q4.9

⁶⁵ Sum of Q4.10 to Q4.14 and Q4.16 to Q4.22

⁶⁶ Please see Question 2 in the post-exposure questionnaire in Appendix 7 for the complete layout of the Aspirations questionnaire.

participants rated for each aspiration its importance to them, their belief about the likelihood of attaining the aspiration and the degree to which they believe they have already attained each aspiration on a scale from 1 (Not at all) to 10 (Very much). Scores from each subscale were summed across their respective items such as higher scores denote higher importance of a particular aspiration, higher likelihood of attaining the particular aspiration and a higher degree of current attainment of the particular aspiration. Subscale mean scores for the importance of the different Aspirations were for the Intrinsic Aspirations: 44.65 (out of a maximum 50; s.d. = 4.713) for Meaningful Relationships, 43.18 for Personal Growth (out of a maximum 50; s.d. = 4.706), 37.75 for Community Contributions (out of a maximum 50; s.d. = 7.490) and 44.81 for Health (out of a maximum 50; s.d. = 4.479); for the Extrinsic Aspirations: 39.77 for Wealth (out of a maximum 50; s.d. = 7.027), 28.67 for Fame (out of a maximum 50; s.d. = 10.915), and 32.22 for Image (out of a maximum 50; s.d. = 9.193) denoting that generally speaking participants showed a higher preference for intrinsic aspirations versus extrinsic aspirations. However, participants in the international sample exhibited consistently higher preference for Extrinsic Aspirations compared to the UK sample (Wealth: MD (I-UK) = 5.607, $t(df) = 5.109 (255)$, $p\text{-value} < 0.0001$; Fame: MD (I-UK) = 7.568, $t(df) = 5.805 (255)$, $p\text{-value} < 0.0001$; Image: MD (I-UK) = 3.684, $t(df) = 2.986 (255)$, $p\text{-value} = 0.003$). Results for Intrinsic Aspirations were mixed and no particular pattern emerged (Meaningful Relationships: (MD (I-UK) = -1.876, $t(df) = 3.529 (255)$, $p\text{-value} < 0.0001$; Personal Growth: (MD (I-UK) = 0.025, $t(df) = 0.043 (255)$, $p\text{-value} = 0.382$; Community Contributions: (MD (I-UK) = -0.409, $t(df) = 0.435 (255)$, $p\text{-value} = 0.664$; Health: (MD (I-UK) = 1.398, $t(df) = 1.871 (255)$, $p\text{-value} = 0.063$).

Subscale mean scores for the likelihood of attaining the different Aspirations in the future were for the Intrinsic Aspirations: 41.67 (out of a maximum 50; s.d. = 5.344) for Meaningful Relationships, 39.86 for Personal Growth (out of a maximum 50; s.d. = 5.715), 35.73 for Community Contributions (out of a maximum 50; s.d. = 7.370) and 39.93 for Health (out of a maximum 50; s.d. = 6.160); for the Extrinsic Aspirations: 37.33 for Wealth (out of a maximum 50; s.d. = 7.769), 27.08 for Fame (out of a maximum 50; s.d. = 8.993), and 31.70 for Image (out of a maximum 50; s.d. = 8.153) denoting again that the participants considered themselves more likely to attain their intrinsic aspirations rather than their extrinsic aspirations in the future. Similarly to the relative importance of the different Aspirations the international sample consistently exhibited their belief that they are more likely to attain their extrinsic aspirations in the future compared to the UK sample (Wealth: MD (I-UK) = 7.059, $t(df) = 6.742 (255)$, $p\text{-value} < 0.0001$; Fame: MD (I-

UK) = 9.138, $t(df) = 9.099 (255)$, $p\text{-value} < 0.0001$; Image: MD (I-UK) = 4.745, $t(df) = 4.291 (255)$, $p\text{-value} < 0.0001$). Results for the future attainment of Intrinsic Aspirations exhibited both significant and non-significant differences but the overall mean difference pattern suggests that the international sample participants are more optimistic about attaining their intrinsic aspirations compared to the UK sample (taken together with the significant pattern for the extrinsic aspirations the results suggest that the international sample is probably more optimistic overall regarding the future prospects of their life) (Meaningful Relationships: (MD (I-UK) = 1.670 $t(df) = 1.868 (255)$, $p\text{-value} = 0.063$; Personal Growth: (MD (I-UK) = 1.225, $t(df) = 1.606 (255)$, $p\text{-value} = 0.011$; Community Contributions: (MD (I-UK) = 1.382, $t(df) = 1.428 (255)$, $p\text{-value} = 0.155$; Health: (MD (I-UK) = 3.270, $t(df) = 3.404 (255)$, $p\text{-value} < 0.0001$).

Finally, subscale mean scores regarding current attainment of the different Aspirations were for the Intrinsic Aspirations: 30.16 (out of a maximum 50; s.d. = 9.128) for Meaningful Relationships, 29.38 for Personal Growth (out of a maximum 50; s.d. = 6.928), 24.96 for Community Contributions (out of a maximum 50; s.d. = 8.092) and 29.25 for Health (out of a maximum 50; s.d. = 8.420); for the Extrinsic Aspirations: 22.49 for Wealth (out of a maximum 50; s.d. = 8.260), 18.21 for Fame (out of a maximum 50; s.d. = 6.612), and 24.86 for Image (out of a maximum 50; s.d. = 7.595) denoting again that the participants feel they have attained a larger part of their intrinsic aspirations versus their extrinsic aspirations. Regarding the current attainment of their aspirations participants in the international sample believed they had attained a higher level of extrinsic aspirations compared to their UK counterparts but this time only for the domain of Wealth and Fame; there was no-significant difference in the image domain (Wealth: MD (I-UK) = 4.184, $t(df) = 3.940 (255)$, $p\text{-value} < 0.0001$; Fame: MD (I-UK) = 4.998, $t(df) = 6.101 (255)$, $p\text{-value} < 0.0001$; Image: MD (I-UK) = 0.941, $t(df) = 0.876 (255)$, $p\text{-value} = 0.382$). Regarding the current attainment of Intrinsic Aspirations the international sample exhibited both significant and non-significant differences but the overall mean difference pattern suggests that the international sample participants feel they have attained their intrinsic aspirations in a lesser degree compared to their UK counterparts (Meaningful Relationships: (MD (I-UK) = -2.709, $t(df) = 2.044 (255)$, $p\text{-value} = 0.042$; Personal Growth: (MD (I-UK) = -0.658, $t(df) = 0.718 (255)$, $p\text{-value} = 0.473$; Community Contributions: (MD (I-UK) = -0.454, $t(df) = 0.410 (255)$, $p\text{-value} = 0.682$; Health: (MD (I-UK) = -2.386, $t(df) = 2.018 (255)$, $p\text{-value} = 0.045$).

Similarly to the UK sample it can be observed that overall Aspiration domains and moving from Aspiration Importance to Likelihood of Attainment to Current Levels of Attainment of Aspirations the scores keep dropping while at the same time the standard deviation is increasing. This result means that not only are the participants more certain regarding the importance of their aspirations, less certain regarding the likelihood of attainment of these aspirations, and feel they have at the moment attained an even smaller part of their aspirations, but also that the differences in perceptions between individuals increase. The pattern of all the T-Tests for the different Aspirations domains and moving again from Aspiration Importance to Likelihood of Attainment to Current Levels of Attainment of Aspirations suggest that the international sample generally pays more importance to their Extrinsic Aspirations, have a more optimistic outlook regarding the attainment of both Extrinsic and Intrinsic Aspirations in their futures and feel they have currently attained more extrinsic but less intrinsic aspirations compared to their UK counterparts.

Cronbach α ranged from 0.720 for Current Personal Growth Attainment to 0.930 for the Importance of Fame. Therefore all subscales exhibit strong internal consistency (Please see Table 15 for Cronbach α , Means, Standard Deviations and Correlations with the other independent and dependant variables).

7.5.2. Situational Motivation for Consumption⁶⁷

The Situational Motivation Scale (SIMS) (Guay, Vallerand and Blanchard; 2000) was used to capture participants' motivation for engaging in consumption activities. Participants rated the SIMS scale from 1 – Strongly Disagree to 10 – Strongly Agree and their scores were summed to form the SIMS' four subscales (namely: Intrinsic Motivation, Identified Regulation, External Regulation and Amotivation) so that higher scores indicate greater motivation and greater influence by the particular type of motivation. Participants exhibited high Identified Regulation for consumption activities (mean = 28.62, s.d. =5.002), followed closely by Intrinsic Motivation (mean = 25.69, s.d. =6.751), External Regulation (mean = 19.27, s.d. =7.247) and Amotivation (mean = 15.08, s.d. =4.877). Cronbach α was 0.700 for Identified Regulation, 0.770 for Intrinsic Motivation, 0.780 for External Regulation and 0.640 for Amotivation denoting adequate internal consistency for all subscales. Participants in the international sample exhibited significantly higher

⁶⁷ Please see Question 4 in the post-exposure questionnaire in Appendix 7 for the items of the scale.

Identified Regulation (MD (I-UK) = 1.814, $t(df) = 2.854$ (255), p -value = 0.005), marginally significantly lower Intrinsic Motivation (MD (I-UK) = -1.458, $t(df) = 1.875$ (255), p -value = 0.062), significantly higher External Regulation (MD (I-UK) = 3.570, $t(df) = 3.796$ (255), p -value < 0.0001) and non-significant differences in Amotivation (MD (I-UK) = -0.971, $t(df) = 0.594$ (255), p -value = 0.152) compared to their UK counterparts.

7.5.3. State Self-Esteem⁶⁸

The State Self-Esteem Scale (SSES) (Heatherton and Polivy, 1991) was used to capture participants' self-esteem. SSES followed the same four factor solution as in study one⁶⁹. (namely SSES Looks, SSES Performance, SSES Image and SSES General Self). Table 14 below presents the factorial structure adopted as well as the relevant Cronbach α across factors; means and standard deviations are given for both items and factors. Upon reversal of the relevant items factor scores were created by summing the individual relevant items such that higher scores denote higher satisfaction or more positive self-esteem per domain (SSES Looks was summed with a minimum from 5 to a maximum of 50; SSES Performance from 6 to 60 and SSES Image, SSES General Self from 3 to 30). The pattern of factor scores is exactly the same as in the UK sample denoting that the participants (after accounting for the subscales' different ranges) exhibit first of all high performance self-esteem, then a lower but still high general self self-esteem, then a medium level appearance related self-esteem and last low positive Image self-esteem making them relatively self-conscious. Cronbach α ranges from 0.770 for SSES Looks to 0.700 for SSES General Self denoting for all scales a good internal consistency.

Participants' self-esteem in the international sample was significantly higher in the domain of Performance (MD (I-UK) = 2.800, $t(df) = 2.079$ (255), p -value = 0.027) and marginally significantly higher in the domain of Image (MD (I-UK) = 1.350, $t(df) = 1.650$ (255), p -value = 0.100); differences in the domain of Looks (MD (I-UK) = 0.9100, $t(df) = 0.727$ (255), p -value = 0.468) were non-significant and in the domain of General Self-Esteem (MD (I-UK) = 0.862, $t(df) = 1.493$ (255), p -value = 0.121) marginally non-significant albeit slightly higher for the international sample compared to their UK counterparts. Generally the overall pattern of differences would suggest that across the

⁶⁸ Please see Question 3 in the post-exposure questionnaire in Appendix 7 for the items of the scale.

⁶⁹ Once again the researcher actually tested the SSES factorial structure anew in the international sample. As with the CSES, the SSES scale yielded the same four factor solution as in the UK sample without having to constrict the analysis or make any changes whatsoever.

SSES domains the international sample exhibited relatively higher – more positive – self-esteem overall.

Table 14: Study 2 Factor Analytic Structure for SSES.

Code	Questionnaire Scale Items	Factor Label	Factors**				Mean / SD
			1	2	3	4	
Q3.12	I am pleased with my appearance right now.	SSES Looks	0.673				6.12 / 2.000
Q3.7*	I am dissatisfied with my weight. *		0.770				6.00 / 2.900
Q3.8*	I feel self-conscious. *		0.470				5.00 / 2.152
Q3.16*	I feel unattractive. *		0.540				7.30 / 2.100
Q3.3	I feel satisfied with the way my body looks right now.		0.881				5.50 / 2.300
Q3.18*	I feel that I have less academic ability right now than others. *	SSES Performance		0.480			7.01 / 2.400
Q3.9	I feel as smart as others.			0.890			7.20 / 1.843
Q3.19*	I feel like I'm not doing well. *			0.770			6.40 / 2.524
Q3.14	I feel confident that I understand things.			0.650			7.40 / 1.617
Q3.4*	I feel frustrated or rattled about my performance. *			0.774			6.31 / 2.300
Q3.15*	I feel inferior to others at this moment. *			0.650			7.00 / 2.304
Q3.17*	I feel concerned about the impression I am making. *	SSES Image			0.702		5.34 / 2.300
Q3.13*	I am worried about what other people think of me. *				0.925		5.80 / 2.700
Q3.20*	I am worried about looking foolish. *				0.730		6.30 / 2.632
Q3.1	I feel confident about my abilities.	SSES General Self				0.520	6.90 / 1.712
Q3.6	I feel that others respect and admire me.					0.740	6.00 / 1.800
Q3.11	I feel good about myself.					0.540	6.80 / 1.710
Cronbach Alpha			0.770	0.750	0.764	0.700	
<i>Eigenvalues***</i>			4.152	4.933	2.673	2.635	
<i>Mean/ SD</i>			29.60 / 8.193	41.20 / 8.662	17.41 / 6.300	19.62 / 4.030	
<i>KMO</i>			0.800				
<i>Bartlett's Test of Sphericity</i>			Chi-Square = 594.418, df. = 136, Sig. <0.0001				
<i>% of Variance explained</i>			67.530%				

*: Reverse scored items

** : Maximum Likelihood Estimation Method with Oblimin Rotation (Kaiser Normalisation). Factors are correlated. Model is statistically significant: Chi-Square = 142.093, df = 74, Sig. < 0.0001

***: When factors are correlated, sums of rotated squared loadings cannot be added to obtain a total variance

7.5.4. Body (Dis)satisfaction⁷⁰

The Body Image State Scale (BISS) (Cash, Fleming, Alindogan, Steadman and Whitehead, 2002) was used to capture participants' body (dis)satisfaction. Participants rated the BISS on a 9-point bipolar, Likert-type scale semantically anchored from negative to positive for the different domain of body (dis)satisfaction measured by each item. Participant scores were then summed upon reversal of the relevant items to form a continuous index of body (dis)satisfaction where the higher the score the more favourable body image states, that is higher Body Satisfaction/lower Body Dissatisfaction (Cash, Fleming, Alindogan, Steadman and Whitehead, 2002) are indicated (with a minimum of 9 and a maximum of 54). Sample mean was 34.90 (out of a possible 54; s.d. = 4.030) denoting overall positive body image states. Cronbach α was 0.941 denoting a very strong internal consistency of the scale. Participants' body (dis)satisfaction in the international sample was not found to be significantly different to that of their UK counterparts (MD (I-UK) = 0.552, $t(df) = 0.430$ (255), p -value = 0.668).

7.5.5. Basic Needs Scale⁷¹

The General Basic Needs Fulfilment Scale (BNS) was used to capture participants' satisfaction with basic needs (namely Autonomy, Competence and Relatedness). Participants rated the BNS from 1 – Not at all true to 10 – Very True. Upon reversal of the relevant items the BNS items were summed to create sub-scores for each need domain where higher scores denote higher satisfaction with the fulfilment of the particular need. Sample mean for Autonomy⁷² was 48.65 out of a possible 70 (s.d. = 7.911); for Competence⁷³ was 39.46 out of a possible 60 (s.d. = 6.892) and for Relatedness⁷⁴ was 56.18 out of a possible 80 (s.d.=9.751). Following a similar pattern with the UK sample the scores on BNS denote that on average the participants feel most fulfilled by their relationships with other people, next feel more fulfilled in making autonomous decisions and last feel relatively competent. Cronbach α was 0.650 for Autonomy, 0.652 for Competence and 0.820 for Relatedness denoting acceptable internal consistency for the three subscales. Participants' needs satisfaction in the international sample was only significantly different to their UK counterparts regarding fulfilment with relationships;

⁷⁰ Please see Question 6 in the post-exposure questionnaire in Appendix 7 for the items of the scale.

⁷¹ Please see Question 5 in the post-exposure questionnaire in Appendix 7 for the items of the scale.

⁷² Sum of Q5.1, Q5.5(R), Q5.8, Q5.11(R), Q5.13, Q5.17, Q5.20(R)

⁷³ Sum of Q5.3(R), Q5.4, Q5.10, Q5.12, Q5.14(R), Q5.19(R)

⁷⁴ Sum of Q5.2, Q5.6, Q5.7(R), Q5.9, Q5.15, Q5.16(R), Q5.18(R), Q5.21

international participants felt a lower level of satisfaction (MD (I-UK) = -4.252, $t(df) = 3.013$ (255), $p\text{-value} = 0.003$). Fulfilment with Autonomy (MD (I-UK) = -1.113, $t(df) = 1.030$ (255), $p\text{-value} = 0.304$) and Competence (MD (I-UK) = 0.751, $t(df) = 0.706$ (255), $p\text{-value} = 0.481$) were not found to be significantly different.

Table 15: Study 2 Bivariate Correlations and Descriptive Statistics for the Outcome Variables

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43										
1 Mood	0.850																																																				
2 CSES Others	-0.013	0.750																																																			
3 CSES Looks	0.072	0.541	0.760																																																		
4 CSES Failure	0.055	0.473	0.360	0.662																																																	
5 CSES Performance	0.143	0.242	0.305	-0.203	0.600																																																
6 MMCSI	-0.038	0.186	0.271	0.049	0.034	0.864																																															
7 ATSS	-0.090	0.038	0.145	0.016	-0.111	0.596	0.750																																														
8 GCOS Controlled Orientation	0.032	0.278	0.280	0.002	0.126	0.246	0.238	0.614																																													
9 GCOS Impersonal Orientation	-0.055	0.213	0.042	0.340	-0.012	-0.093	-0.167	0.249	0.670																																												
10 GCOS Autonomous Orientation	0.290	0.188	0.256	0.060	0.240	0.354	0.180	0.276	-0.143	0.800																																											
11 Aspirations: Importance of Wealth	-0.005	0.387	0.408	-0.159	0.271	0.102	-0.033	0.250	0.083	0.177	0.850																																										
12 Aspirations: Likelihood of Attaining Wealth	-0.078	0.148	0.218	0.047	0.126	0.022	0.000	0.305	-0.118	0.170	0.571	0.904																																									
13 Aspirations: Current Wealth Attainment	0.022	0.194	0.207	-0.084	0.041	-0.007	-0.005	0.250	0.128	0.145	0.193	0.425	0.850																																								
14 Aspirations: Importance of Fame	0.203	0.242	0.219	-0.015	0.027	0.023	-0.153	0.262	0.149	0.072	0.673	0.419	0.179	0.930																																							
15 Aspirations: Likelihood of Attaining Fame	0.175	0.135	0.136	0.083	0.039	-0.022	-0.126	0.261	-0.047	0.068	0.542	0.662	0.298	0.792	0.900																																						
16 Aspirations: Current Fame Attainment	0.134	0.028	0.121	0.089	0.127	-0.007	-0.192	0.165	-0.038	0.065	0.181	0.373	0.505	0.442	0.642	0.820																																					
17 Aspirations: Importance of Image	0.228	0.408	0.547	-0.175	0.185	0.107	-0.076	0.162	0.134	0.215	0.557	0.312	0.203	0.587	0.416	0.260	0.823																																				
18 Aspirations: Likelihood of Attaining Image	0.144	0.346	0.484	-0.097	0.136	0.087	-0.073	0.214	0.051	0.259	0.446	0.520	0.342	0.414	0.452	0.262	0.850	0.761																																			
19 Aspirations: Current Image Attainment	0.114	0.256	0.449	-0.076	0.015	0.080	0.003	0.228	-0.013	0.279	0.222	0.408	0.530	0.277	0.437	0.557	0.632	0.743	0.740																																		
20 Aspirations: Importance of Personal Growth	0.198	0.027	-0.031	0.149	0.129	0.104	-0.029	-0.009	-0.135	0.474	0.165	0.170	0.056	0.248	0.205	0.173	0.182	0.129	0.123	0.750																																	
21 Aspirations: Likelihood of Attaining Personal Growth	0.077	-0.144	-0.125	0.291	-0.025	0.030	-0.006	-0.003	0.296	0.354	0.012	0.537	0.273	0.129	0.412	0.280	0.106	0.285	0.345	0.562	0.720																																
22 Aspirations:	0.026	-0.125	-0.034	0.183	-0.072	-0.007	-0.100	0.033	-0.061	0.239	-0.107	0.166	0.537	0.022	0.228	0.455	0.073	0.187	0.497	0.180	0.532	0.741																															

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43										
Current Personal Growth Attainment																																																					
23 Aspirations: Importance of Meaningful Relationships	0.183	0.303	0.243	-0.003	0.243	0.263	0.219	0.298	-0.010	0.501	0.297	0.162	0.139	0.219	0.162	0.058	0.286	0.195	0.147	0.404	0.096	-0.036	0.760																														
24 Aspirations: Likelihood of Attaining Meaningful Relationships	0.258	0.111	0.081	0.140	0.084	0.087	-0.018	0.033	-0.119	0.359	0.127	0.309	0.268	0.227	0.253	0.142	0.336	0.415	0.301	0.390	0.517	0.196	0.542	0.780																													
25 Aspirations: Current Attainment of Meaningful Relationships	0.135	0.064	0.037	-0.020	-0.038	-0.008	-0.013	-0.049	-0.029	0.117	-0.020	0.080	0.459	0.141	0.197	0.401	0.236	0.273	0.505	0.161	0.245	0.476	0.149	0.499	0.811																												
26 Aspirations: Importance of Community Contributions	0.223	0.157	0.063	-0.067	0.100	0.088	-0.058	0.156	-0.072	0.460	0.175	0.062	0.009	0.329	0.267	0.299	0.243	0.172	0.244	0.497	0.218	0.040	0.386	0.221	0.005	0.904																											
27 Aspirations: Likelihood of Attaining Community Contributions	0.151	0.048	0.006	0.023	0.097	0.016	-0.069	0.172	-0.129	0.399	0.165	0.305	0.078	0.282	0.399	0.336	0.161	0.234	0.315	0.423	0.463	0.159	0.223	0.262	-0.025	0.850	0.860																										
28 Aspirations: Current Attainment of Community Contributions	0.055	0.022	0.117	0.140	0.085	0.059	-0.051	0.224	-0.069	0.309	0.034	0.269	0.462	0.205	0.326	0.592	0.157	0.257	0.544	0.260	0.425	0.523	0.199	0.292	0.285	0.557	0.665	0.853																									
29 Aspirations: Importance of Health	0.238	0.271	0.246	-0.044	0.260	0.093	-0.019	0.175	0.043	0.494	0.230	0.128	0.011	0.208	0.124	0.031	0.340	0.279	0.151	0.591	0.264	0.023	0.493	0.417	0.170	0.327	0.200	0.093	0.790																								
30 Aspirations: Likelihood of Attaining Health	0.287	0.085	0.039	0.056	0.069	-0.060	-0.112	0.000	-0.157	0.331	-0.021	0.282	0.142	0.097	0.216	0.095	0.302	0.435	0.348	0.365	0.599	0.232	0.145	0.596	0.344	0.101	0.264	0.209	0.518	0.860																							
31 Aspirations: Current Health Attainment	0.197	0.019	-0.025	0.037	0.009	-0.026	-0.043	0.036	-0.146	0.278	-0.222	0.151	0.418	-0.071	0.123	0.374	0.043	0.206	0.464	0.217	0.499	0.537	-0.033	0.293	0.457	0.130	0.259	0.502	0.193	0.549	0.890																						
32 SIMS Intrinsic Regulation	-0.035	0.462	0.370	0.313	0.068	0.221	0.068	0.111	0.107	0.325	0.243	0.070	0.124	0.110	-0.018	-0.062	0.313	0.209	0.166	0.213	0.110	0.010	0.218	0.177	0.038	0.218	0.121	0.039	0.450	0.146	0.072	0.770																					
33 SIMS Identified Regulation	0.144	0.285	0.351	-0.176	0.264	0.304	0.122	0.344	0.083	0.565	0.369	0.159	0.244	0.161	0.141	0.121	0.293	0.273	0.274	0.236	0.121	0.135	0.384	0.167	0.109	0.288	0.265	0.182	0.332	0.152	0.096	0.471	0.700																				
34 SIMS External Regulation	-0.086	0.192	0.112	-0.074	0.272	-0.075	-0.110	0.077	0.049	0.076	0.091	0.193	0.124	0.001	0.135	0.179	-0.019	0.076	0.085	0.027	0.117	0.084	0.159	0.094	0.033	0.064	0.103	0.119	0.058	0.111	0.077	0.029	0.191	0.760																			
35 SIMS Amotivation Regulation	-0.074	0.091	-0.088	-0.137	-0.119	-0.133	-0.195	-0.085	0.259	0.276	0.041	0.128	-0.042	0.004	-0.081	-0.026	0.055	0.018	-0.086	-0.133	-0.248	-0.116	-0.020	-0.121	0.035	0.008	-0.103	-0.022	-0.199	-0.227	0.118	-0.078	-0.167	0.265	0.640																		
36 SSE Looks	0.078	-0.139	-0.211	0.095	-0.188	0.021	0.088	-0.116	-0.267	0.036	-0.048	0.145	0.141	0.076	0.183	0.156	-0.122	-0.061	0.124	0.100	0.260	0.169	-0.130	0.053	0.185	-0.037	-0.003	0.009	0.013	0.051	0.228	0.049	-0.068	-0.058	-0.167	0.770																	
37 SSE Performance	0.252	0.059	0.031	0.052	-0.042	-0.083	0.147	0.009	-0.319	0.154	-0.112	0.228	0.286	0.002	0.192	0.131	-0.034	0.121	0.186	0.181	0.357	0.187	0.166	0.311	0.322	-0.050	0.043	0.043	0.080	0.277	0.256	0.023	0.051	0.075	-0.251	0.415	0.750																
38 SSE Image	0.067	0.532	0.381	0.310	-0.165	-0.163	-0.092	0.247	-0.342	0.065	0.311	-0.009	-0.127	-0.221	-0.049	-0.110	0.375	0.200	-0.186	-0.019	0.171	0.089	-0.181	0.043	0.076	-0.256	-0.136	-0.177	-0.155	0.110	0.084	0.374	0.317	-0.119	-0.239	0.405	0.346	0.764															
39 SSE Self	0.302	0.107	0.148	-0.029	0.005	0.012	-0.079	0.240	-0.210	0.289	0.071	0.374	0.412	0.265	0.448	0.435	0.227	0.329	0.455	0.199	0.405	0.389	0.227	0.379	0.403	0.212	0.265	0.313	0.206	0.302	0.380	0.180	0.205	0.177	-0.216	0.422	0.641	0.139	0.700														
40 BIS	0.206	-0.122	-0.185	0.061	-0.134	-0.009	0.086	-0.036	-0.205	0.015	-0.080	0.135	0.119	0.069	0.168	0.160	-0.120	-0.045	0.095	0.086	0.210	0.206	-0.092	0.067	0.280	-0.114	-0.070	-0.010	0.078	0.171	0.366	0.080	-0.113	0.004	-0.089	0.683	0.361	0.409	0.427	0.941													
41 Autonomy	0.067	-0.027	0.141	0.128	-0.038	0.232	0.338	0.283	-0.367	0.372	-0.025	0.126	0.173	-0.016	0.085	-0.002	0.024	0.109	0.214	0.205	0.336	0.301	0.242	0.206	0.191	0.068	0.081	0.118	0.204	0.169	0.286	0.200	0.214	-0.055	0.323	-0.266	0.412	0.254	0.434	0.343	0.650												
42 Competence	0.258	-0.031	-0.039	0.114	-0.022	-0.048	0.069	0.033	-0.406	0.227	-0.208	0.136	0.329	-0.061	0.161	0.132	-0.143	0.016	0.183	0.155	0.419	0.379	0.073	0.273	0.283	0.035	0.118	0.204	0.123	0.329	0.430	0.049	0.001	0.044	0.274	0.480	0.682	0.360	0.635	0.461	0.532	0.652											

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
43 Relatedness	<i>0.265</i>	-0.003	-0.027	-0.023	-0.116	0.111	0.053	0.141	-0.109	<i>0.351</i>	-0.057	0.004	<i>0.301</i>	0.041	0.103	0.189	-0.047	-0.018	<i>0.246</i>	0.084	0.90	<i>0.313</i>	0.123	0.176	<i>0.381</i>	0.155	0.90	0.196	0.101	0.183	<i>0.464</i>	<i>0.238</i>	0.131	-0.037	-0.151	<i>0.296</i>	<i>0.342</i>	<i>0.248</i>	<i>0.529</i>	<i>0.459</i>	<i>0.456</i>	<i>0.552</i>	0.820
Means	31.65	18.11	18.87	15.21	21.58	54.15	76.95	100.84	79.89	132.18	39.77	37.33	22.59	28.67	27.08	18.21	32.22	31.70	24.86	43.18	39.86	29.38	44.65	41.67	30.16	37.75	35.73	24.96	44.81	39.93	29.25	25.69	28.62	19.27	15.08	29.56	41.20	17.41	19.62	34.90	46.86	39.46	56.18
Standard Dev.	5.650	5.365	4.724	5.026	4.392	16.360	15.853	13.974	15.658	15.262	7.207	7.769	8.260	10.915	8.993	6.612	9.193	8.153	7.595	4.706	5.715	6.928	4.713	5.344	9.128	7.490	7.370	8.092	4.479	6.160	8.420	6.751	5.002	7.247	4.877	8.183	8.662	6.256	4.030	9.703	7.911	6.892	9.751

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

All significant correlations are also italicised. **Cronbach a** is in **bold** in the diagonal.

7.6. Results

7.6.1. Manipulation Check

As in study one the purpose of the manipulation of the different levels of nudity was to create depictions of sexual imagery in advertising that increased in intensity and explicitness with the intention of producing increased arousal across conditions (from the control / product only condition to the nude condition; lowest sexual arousal to highest sexual arousal) with the secondary aim of creating advertising stimuli that mimicked reality.

The same thought listing tasks were used to increase stimuli saliency and provide relevant manipulation check measures (Edell and Keller, 1989) (please see the same section in study one for a detailed description of the thought listing tasks and the procedure used to create manipulation check measures / indicators).

The participant responses to the thought listing task were once again coded and content analysed with the same procedure and protocols followed in study one through the use of two independent coders (please see the same section in study one for a detailed description of the content analysis process). The same categories as in study one (namely distractions, negative body related statements, negative affect, moral reasoning, offense, sexual arousal, marketing effectiveness, product relevance, compensation effect and common depictions) were used for coding the data and no new categories were found useful to provide additional information. Initial inter-coder reliability was at 92% and disagreements were resolved through negotiation and consensus.

In total 553 thoughts were coded under all cognitive and affective categories. Table 16 and Table 17 show the sum of thoughts per category and per experimental condition as well as per gender. As was the case in study one the stimuli worked as expected and the response patterns between the international and the UK sample follow each other directly. Participants were more distracted as nudity increased, they experienced more negative body related thoughts (affects and cognitions), they exhibited increasing negative affect, and they appeared more offended and aroused. Marketing effectiveness is lowered as nudity increases and the negative comments on product relevance increase

as expected with nudity. Most patterns do not appear as statistically significant (the Kruskal Wallis non parametric test was preferred to ANOVA due to reduced and unequal group sizes; this is natural as not all participants had commented in each category) which is expected due to the low response frequencies. Given the fact that the directionality of the response patterns is the same as the directionality of the response patterns in study one the results would suggest that the manipulation worked in study two as well. Again, similarly to study one no significant differences are observed between genders (the Mann Whitney U non-parametric test is preferred to a chi-square test of independence, again due to the reduced and unequal group sizes) but the general pattern of responses follows the previous literature with females producing more negative thoughts compared to males.

Participants in the international sample also produced a lot fewer thoughts compared to their UK counterparts (553 total thoughts versus 1093 total thoughts) and of course this tendency is directly translated to lowered responses per category. This absence of expressed thoughts in certain domains and the generally smaller number of thoughts generated overall in the international participant sample does not necessarily denote a reduced saliency or potency of the stimuli. The interpretation of the results in comparison with the UK sample first needs to take into account the reduced sample size of the international cohort and second the generally observed tendency of participants with particular international backgrounds to be reserved when expressing their thoughts during the study (generally speaking through the coding procedure of the manipulation check task responses it became apparent that the international participants provided less textual material to work with, that is their responses were shorter in length). Comparison of the responses between the international sample and the UK sample reveals that the only significant differences between the two groups are located in the number of negative product relevance thoughts (UK sample produced more negative product relevance thoughts (76 versus 27); Mann Whitney U = 754.000, p-value = 0.017) and the number of negative affect (36 versus 11); Mann Whitney U = 137.500, p-value = 0.040). All other differences in the amount of thoughts produced are not significant although caution must be applied since the reduced amount of responses and the extremely unequal, non-normally distributed groups make statistical testing and inference difficult. However there were no marginally significant differences (either at a 0.10 or even 0.15 p-value) and therefore there is no reason to hypothesise that the observed differences are significant or exist due to any other reason than the difference in the amount of the overall thoughts produced between the two samples.

Table 16: Study 2 Thoughts listed per experimental condition

		Distractions	Negative Body Related Thoughts	Negative Affect	Moral Reasoning	Offense*	Sexual Arousal	Marketing Effectiveness **	Product Relevance	Compensation Effect	Common Depictions	
Experimental Conditions	Nude	3	24	5	6	12	64	27	24	2	5	
	Semi-nude	9	16	16	4	6	47	25	16	3	2	
	Clothed	1	6	6	1	1	21	67	6	2	2	
	Product only	0	1	0	0	3	5	104	1	0	10	
Totals		13	47	27	11	22	137	223	47	7	19	553
Kruskal – Wallis Test		H =0.500, d.f. = 2 sig. =0.779	H = 1.344, d.f. = 2 sig. =0.511	H =0.000, d.f. = 2 sig. = 1.000	H = 1.669, d.f. = 2 sig. =0.434	H = 9.228, d.f. = 3 sig. =0.026	H = 3.979, d.f. = 3 sig. =0.264	H = 18.429, d.f. = 3 sig. =0.000	H = 1.971, d.f. = 3 sig. =0.578	H =0.000, d.f. = 2 sig. = 1.000	H = 2.156, d.f. = 3 sig. =0.541	

** . Correlation is significant at the 0.001 level.

*. Correlation is significant at the 0.05 level.

Table 17: Study 2 Thoughts listed across genders

		Distractions	Negative Body Related Statements	Negative Affect	Moral Reasoning	Offense	Sexual Arousal	Marketing Effectiveness	Product Relevance	Compensation Effect	Common Depictions	
Gender of Participants	Male	9	16	9	2	6	63	77	16	1	7	
	Female	4	31	18	9	16	74	144	31	6	12	
Totals		13	47	27	11	22	137	223	47	7	19	553
Mann-Whitney U Test		U = 14.000 sig. =0.480	U = 12.500 sig. =0.121	U = 9.000 sig. = 1.000	U = 30.000 sig. =0.722	U = 875.500 sig. =0.278	U = 321.500 sig. =0.663	U = 455.500 sig. =0.482	U = 55.000 sig. =0.228	U = 3.000 sig. = 1.000	U = 15.500 sig. =0.911	

7.6.2. Analyses

7.6.2.1. Initial Analyses

Descriptive analyses were employed in order to check the properties of the data and determine their suitability for the intended analyses (Hair et al., 2010). All items were slightly non-normal with skewness and kurtosis close to |0|, with some indices fluctuating with a maximum of |1|. Since severe non-normality associates with kurtosis higher than |7| and skewness higher than |2| (Hair et al., 2010), all data were deemed suitable for all subsequent analyses. (Please see Table 15 for descriptive statistics, bivariate correlations and Cronbach α for the independent and the dependent variables).

Before conducting the main analyses equivalency across all experiment conditions groups on age (Chi-square (42) = 41.893, $p = 0.476$), year of study (Kendall's Tau-b = 0.035, $p = 0.700$), religion practice (Kendall's Tau-b = 0.110, $p = 0.228$) and religion attendance (Kendall's Tau-b = 0.045, $p = 0.592$) was tested and supported.

Equivalency of individual differences/independent variables were checked across groups to ensure independence of the independent variables as covariates and the treatment effect of the experimental manipulation of the advertising imagery. Equivalency was supported for: Mood ($F(7, 90) = 0.644$, $p = 0.718$), CSES Others ($F(7, 90) = 1.046$, $p = 0.406$), CSES Looks ($F(7, 90) = 0.367$, $p = 0.919$), CSES Failure ($F(7, 90) = 1.013$, $p = 0.428$), CSES Performance ($F(7, 90) = 1.230$, $p = 0.296$), MMCSI ($F(7, 90) = 0.293$, $p = 0.955$), ATSS ($F(7, 90) = 0.700$, $p = 0.672$), GCOS Autonomy orientation ($F(7, 90) = 0.933$, $p = 0.486$), GCOS Controlled orientation ($F(7, 90) = 0.288$, $p = 0.957$) and GCOS Impersonal Orientation ($F(7, 90) = 0.902$, $p = 0.509$).

Since all groups were equivalent across demographic variables as well as the independent/covariate variables, analyses moved on to the main part of hypotheses testing.

7.6.2.2. Main Analyses and Hypotheses Testing

As in study one two rounds of analyses were performed in order to examine the effects of sexual imagery on the dependent/outcome variables. Initially, one way ANOVAs were executed with all the 33 dependent outcome variables with no covariates and with

the different conditions as a factor with eight categories (namely: Male-Nude, Male-Semi-Nude, Male-Clothed, Male-Product Only, Female-Nude, Female-Semi-Nude, Female-Clothed, and Female-Product Only).

After an initial confirmation of the statistical significance of effects on particular dependent variables a second round of two-way ANCOVAs was executed only for the dependents that exhibited statistically significant effects. ANCOVAs were run incorporating a 2x4 full factorial design with Gender (male vs. female) and Advertising Conditions (the four conditions for sexual imagery: Nude, Semi-Nude, Clothed, Product Only) as fixed factors and Mood, CSES Looks, CSES Others, CSES Failure, CSES Performance, GCOS Autonomy Orientation, GCOS Controlled Orientation, GCOS Impersonal Orientation, MMCSI and ATSS as covariates.

The first round of ANOVAs uncovered differences among groups for Aspirations: Current Attainment of Wealth ($F(7, 90) = 2.099, p = 0.050$), Importance of Image ($F(7, 90) = 2.300, p = 0.034$), Likelihood of Attaining Image ($F(7, 90) = 3.484, p = 0.003$), Current Attainment of Image ($F(7, 90) = 3.341, p = 0.003$), Current Attainment of Personal Growth ($F(7, 90) = 3.155, p = 0.005$), Importance of Community Contributions ($F(7, 90) = 2.404, p = 0.027$), Likelihood of Attaining Community Contributions ($F(7, 90) = 2.214, p = 0.040$), Importance of Health ($F(7, 90) = 2.866, p = 0.010$), Likelihood of Attaining Health ($F(7, 90) = 2.963, p = 0.008$) and Current Attainment of Health ($F(7, 90) = 3.348, p = 0.003$). For body (dis)satisfaction: BISS ($F(7, 90) = 2.770, p = 0.012$). For satisfaction with basic needs: Autonomy ($F(7, 90) = 2.640, p = 0.016$) and Relatedness ($F(7, 90) = 2.380, p = 0.029$). No significant differences across groups were found for self-esteem (SSES scale) and for consumer motivations for consuming goods and services (SIMS scale).

Due to the fact that the 7 groups were not exactly equal in terms of sizes and despite the fact that in all ANOVAs the hypothesis of homogeneous variance across groups was tested and found to hold (Levene's Test) the analysis employed robust tests of equality of means (namely Welch and Brown-Forsythe Indices) to check the validity of the initial omnibus ANOVA test. The robust tests of equality of means corroborated the validity of the initial omnibus ANOVA tests.

The second round of two-way ANCOVAs aimed at understanding the exact effect of the levels of sexual imagery and gender as well as test possible interaction effects and investigate the possible effects of covariates. (Please see Table 18 for means and standard deviations across groups, Tables 19 to 22 for the ANCOVA results and Appendix

2 for the mean figures per dependent variable. Only the significant covariates are presented in the ANCOVA tables.)

Table 18: Study 2 Means and Standard Deviations across groups for Dependent Variables

	Sexual Imagery Condition																			
	Nude				Semi-nude				Clothed				Product only				Total Sample			
	Gender		Gender		Gender		Gender		Gender		Gender		Gender		Gender					
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female				
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Current Attainment of Wealth	25.13	11.04	22.93	6.72	16.83	6.15	21.54	7.00	22.75	7.50	28.14	7.58	22.50	9.64	21.27	8.34	21.15	8.97	23.46	7.76
Importance of Image	28.13	13.78	35.73	7.28	29.50	8.79	32.46	9.21	26.50	11.15	36.29	5.36	26.10	6.64	34.67	9.60	27.82	9.56	34.84	7.95
Likelihood of Attaining Image	28.25	8.41	35.00	7.73	26.58	8.72	32.92	7.83	28.25	9.91	36.57	5.00	25.90	6.89	33.53	6.94	26.97	7.95	34.53	6.92
Current Attainment of Image	22.88	2.95	27.93	8.17	19.58	6.58	23.46	8.14	20.75	4.86	30.79	6.41	22.70	4.42	25.27	8.46	21.41	5.11	26.91	8.11
Current Attainment of Personal Growth	30.00	8.30	30.87	7.23	25.08	5.85	27.38	6.25	29.75	2.99	33.00	6.28	30.10	8.03	28.80	6.74	28.26	7.08	30.05	6.81
Importance of Community Contributions	38.13	4.22	39.53	7.46	38.83	5.87	39.62	8.09	44.00	5.72	36.43	10.18	33.50	5.30	35.67	7.31	36.71	6.05	37.77	8.28
Likelihood of Attaining Community Contributions	35.00	4.17	38.20	7.34	36.92	8.08	36.69	7.12	41.25	6.40	34.93	10.05	33.60	5.48	32.53	6.12	36.00	6.56	35.56	7.86
Importance of Health	42.38	6.25	44.13	5.40	43.42	4.29	46.54	3.50	47.50	3.32	46.57	2.93	42.60	5.52	45.53	2.80	43.41	5.12	45.65	3.86
Likelihood of Attaining Health	36.63	8.90	41.27	5.55	35.50	8.57	41.69	3.95	39.50	8.70	43.93	3.56	37.40	4.03	40.47	3.93	36.79	7.36	41.81	4.42
Current Attainment of Health	31.00	8.19	28.33	10.01	21.33	5.88	28.85	7.01	32.75	7.14	35.57	6.84	28.60	8.62	29.53	7.09	27.09	8.43	30.54	8.22
BISS	34.75	9.35	30.80	8.56	31.92	10.82	32.46	11.10	41.00	1.63	39.93	8.91	38.90	6.84	34.60	10.38	35.71	9.08	34.42	10.10
Autonomy	47.38	6.14	44.40	7.64	45.17	6.58	44.85	5.67	55.25	9.60	50.43	10.07	48.30	7.02	45.60	8.30	47.79	7.32	46.30	8.25
Relatedness	61.63	7.58	52.60	10.89	52.67	9.64	54.31	10.54	61.00	2.16	62.00	7.77	58.80	6.70	52.80	10.38	57.56	8.39	55.35	10.46

7.6.2.2.1. Hypothesis 1: Life Aspirations

As in study one Life Aspirations offered as a set of scales the largest pool of dependant variables. According to H1 (please see "Objectives and Hypotheses of the Project" section) consumers were expected to exhibit higher Extrinsic Aspirations as they were exposed to increasing sexual imagery. By extension consumers were expected to exhibit lower Intrinsic Aspirations as they were exposed to increasing sexual imagery. The hypothesis was essentially not supported in its current form. First not all aspiration levels (Importance, Current Attainment and/or Likelihood of Attainment) differed across either gender and/or across the advertising conditions. Of those that differed (2 out of 3 for the Extrinsic Aspirations and 3 out of 4 for the Intrinsic Aspirations; please see the summary ANCOVA results in Table 19 for Extrinsic Aspirations and Table 20 for Intrinsic Aspirations) about half of them differed only across gender (taking under account relevant covariates) and half of them differed across the advertising conditions, and only the Importance of Community Contributions differed both across the advertising conditions as well as gender. Even aspiration domains that were found to differ across the advertising conditions they did not exhibit the hypothesised pattern.

Extrinsic Aspirations

Current Attainment of Wealth: The Current Attainment of Wealth domain asked respondents to rate how much they think they have attained wealth already in their lives. GCOS Controlled Orientation ($F(1, 82) = 7.907, p = 0.006, \eta^2_p = 0.088$) was a significant covariate such that the more individuals exhibited a controlled orientation the more they felt they had already attained wealth. Main effects were found for the advertising conditions ($F(3, 82) = 2.975, p = 0.045, \eta^2_p = 0.015$) but not for gender. Planned orthogonal contrasts (Helmert method) revealed that respondents in the semi-nude condition felt they had attained less wealth compared to respondents in the clothed condition ($t(82) = 2.194, p = 0.031$) and respondents in the product only condition also felt they had attained less wealth compared to the respondents in the clothed condition ($t(82) = 2.000, p = 0.048$).

Importance of Image: The Importance of Image domain asked respondents to rate how important obtaining and maintaining a favourable personal image is for them. CSES Others ($F(1, 81) = 3.441, p = 0.067, \eta^2_p = 0.041$) and CSES Looks ($F(1, 81) = 16.613, p < 0.0001, \eta^2_p = 0.170$) were significant covariates such that the more contingent one's self esteem was on the approval of others and on appearance the more they felt that

obtaining and maintaining a favourable personal image was important for them. Main effects were found only for gender ($F(1, 81) = 13.075, p < 0.0001, \eta^2_p = 0.139$). Planned orthogonal contrasts and post-hoc analyses with “p-values” adjusted using Bonferroni correction revealed that females felt that obtaining and maintaining a favourable image was more important for them compared to males ($M_M = 27.82, M_F = 34.84, F(1, 81) = 13.075, p < 0.0001, \eta^2_p = 0.139$).

Likelihood of Attaining Image: The Likelihood of Attaining Image domain asked respondents to rate how likely they consider that in the future they will attain a favourable personal image. CSES Others ($F(1, 80) = 3.280, p = 0.074, \eta^2_p = 0.039$), CSES Looks ($F(1, 80) = 13.268, p < 0.0001, \eta^2_p = 0.146$) and CSES Failure ($F(1, 80) = 2.936, p = 0.091, \eta^2_p = 0.035$) were significant covariates such that the more contingent one’s self esteem was on the approval of others, their own appearance, and not failing, the more they felt they were likely to attain and maintain a favourable personal image in the future. Main effects were found only for gender ($F(1, 80) = 18.485, p < 0.0001, \eta^2_p = 0.188$). Planned orthogonal contrasts and post-hoc analyses with “p-values” adjusted using Bonferroni correction revealed that females felt they were more likely to attain a favourable personal image in the future compared to males ($M_M = 26.97, M_F = 34.53, F(1, 80) = 18.485, p < 0.0001, \eta^2_p = 0.188$).

Current Attainment of Image: The Current Attainment of Image domain asked respondents to rate how much they think they have attained a favourable image already in their lives. CSES Looks ($F(1, 81) = 14.457, p < 0.0001, \eta^2_p = 0.151$) and GCOS Controlled Orientation ($F(1, 81) = 3.701, p = 0.083, \eta^2_p = 0.037$) were significant covariates such that the more contingent one’s self esteem was on appearance and the more individuals exhibited a controlled orientation the more they felt they had already attained a favourable image. Main effects were found only for gender ($F(1, 81) = 11.937, p < 0.0001, \eta^2_p = 0.128$). Planned orthogonal contrasts and post-hoc analyses with “p-values” adjusted using Bonferroni correction revealed that females felt they had already attained a more favourable personal compared to males ($M_M = 21.41, M_F = 26.91, F(1, 81) = 11.937, p < 0.0001, \eta^2_p = 0.128$).

Intrinsic Aspirations

Current Attainment of Personal Growth: The Current Attainment of Personal Growth domain asked respondents to rate how much they think they have attained personal growth already in their lives. CSES Failure ($F(1, 81) = 3.419, p = 0.068, \eta^2_p = 0.040$) and GCOS Autonomous Orientation ($F(1, 81) = 3.349, p = 0.071, \eta^2_p = 0.040$) were

significant covariates such that the more contingent one's self esteem was on not failing the less they felt they had already attained personal growth in their lives, but the more individuals exhibited an autonomous orientation the more they felt they had already attained personal growth in their lives. Main effects were found for the advertising conditions ($F(3, 81) = 3.080, p = 0.032, \eta^2_p = 0.072$) but not for gender. Planned orthogonal contrasts (Helmert method) revealed that respondents in the semi-nude condition felt they had attained less personal growth compared to respondents in the clothed condition ($t(81) = 2.263, p = 0.026$) and respondents in the product only condition also felt they had attained less wealth compared to the respondents in the clothed condition ($t(81) = 2.000, p = 0.048$).

Importance of Community Contributions: The Importance of Community Contributions domain asked respondents to rate how important it is to contribute positively and with a spirit of growth to the community around them. GCOS Autonomous Orientation ($F(1, 81) = 27.355, p < 0.0001, \eta^2_p = 0.252$) was the only significant covariate such that the more individuals exhibited an autonomous orientation the more important it was to contribute positively and with a spirit of growth to the community around them. Main effects were found for the advertising conditions ($F(3, 81) = 2.260, p = 0.087, \eta^2_p = 0.074$), gender ($F(1, 81) = 3.108, p = 0.081, \eta^2_p = 0.031$) as well as the interaction between the advertising conditions and gender ($F(3, 81) = 3.035, p = 0.070, \eta^2_p = 0.070$). Planned orthogonal contrasts and post-hoc analyses with "p-values" adjusted using Bonferroni correction revealed that males experienced higher satisfaction with relatedness compared to females ($M_M = 36.71, M_F = 37.77, F(1, 81) = 3.108, p = 0.081, \eta^2_p = 0.031$). Planned orthogonal contrasts (Helmert method) revealed that respondents in the product only condition reported lower importance of community contributions compared to the respondents in the clothed condition ($t(81) = 2.100, p = 0.038$). The significant interaction effect reported is found in the nude condition where females experience significantly lower satisfaction with relatedness compared to males who experience a resurgence of their satisfaction with relatedness, and therefore higher satisfaction with relatedness overall.

Likelihood of Attaining Community Contributions: The Likelihood of Attaining Community Contributions domain asked respondents to rate how likely they consider that in the future they would be able to contribute positively and with a spirit of growth to the community around them. GCOS Controlled Orientation ($F(1, 82) = 3.919, p = 0.051, \eta^2_p = 0.046$) was the only significant covariate such that the more individuals exhibited a

controlled orientation the less they felt they would be able in the future to contribute positively and with a spirit of growth to the community around them. Main effects were found for the advertising conditions ($F(3, 82) = 2.575, p = 0.060, \eta^2_p = 0.074$) but not for gender. Planned orthogonal contrasts (Helmert method) revealed that respondents in the product only condition felt they would be less likely to be able to contribute positively and with a spirit of growth to the community around them in the future compared to respondents in the clothed condition ($t(82) = 2.195, p = 0.031$).

Importance of Health: The Importance of Health domain asked respondents to rate how important being and staying healthy is in their lives. CSES Others ($F(1, 81) = 3.438, p = 0.067, \eta^2_p = 0.041$) and GCOS Autonomous Orientation ($F(1, 81) = 23.933, p < 0.0001, \eta^2_p = 0.228$) were significant covariates such that the more contingent one's self esteem was on the approval of others and the more individuals exhibited an autonomous orientation the more important health was. Main effects were found for the advertising conditions ($F(3, 81) = 2.970, p = 0.046, \eta^2_p = 0.094$) but not for gender. Planned orthogonal contrasts (Helmert method) revealed that respondents in the nude condition felt health was less important for them compared to respondents in the semi-nude condition ($t(81) = 2.472, p = 0.015$) and for respondents in the product only condition also, health was less important for them compared to respondents in the clothed condition ($t(81) = 1.782, p = 0.078$).

Likelihood of Attaining Health: The Likelihood of Attaining Health domain asked respondents to rate how likely they consider that in the future they would be able to achieve a healthy lifestyle. GCOS Impersonal Orientation ($F(1, 81) = 3.779, p = 0.055, \eta^2_p = 0.045$) and GCOS Autonomous Orientation ($F(1, 81) = 5.013, p = 0.028, \eta^2_p = 0.058$) were significant covariates such that the more individuals exhibited an impersonal orientation the less they felt likely to be able to achieve a healthy lifestyle in the future, but the more individuals exhibited an autonomous orientation the more they felt they likely to be able to achieve a healthy lifestyle in the future. Main effects were found only for gender ($F(1, 81) = 13.189, p < 0.0001, \eta^2_p = 0.140$). Planned orthogonal contrasts and post-hoc analyses with "p-values" adjusted using Bonferroni correction revealed that females felt they would be more able to achieve a healthy lifestyle in the future compared to males ($M_M = 36.791, M_F = 41.81, F(1, 81) = 13.189, p < 0.0001, \eta^2_p = 0.140$).

Current Attainment of Health: The Current Attainment of Health domain asked respondents to rate how much they think they have already attained a stable and long-term level of healthiness in their lives. GCOS Autonomous Orientation ($F(1, 82) = 5.206,$

$p = 0.025$, $\eta^2_p = 0.060$) was the only significant covariate such that the more individuals exhibited an autonomous orientation the more they felt they had attained a healthy lifestyle already. Main effects were found for the advertising conditions ($F(3, 82) = 3.946$, $p = 0.011$, $\eta^2_p = 0.126$) but not for gender. Planned orthogonal contrasts (Helmert method) revealed that respondents in the semi-nude condition felt they had attained less health compared to respondents in the clothed condition ($t(82) = 3.457$, $p = 0.002$) and respondents in the product only condition also felt they had attained less health compared to the respondents in the clothed condition ($t(82) = 1.740$, $p = 0.086$).

Table 19: Study 2 Results of 2x4 ANCOVAs for Extrinsic Aspirations

Predictors	Dependent Variables: Extrinsic Aspirations											
	Current Attainment of Wealth			Importance of Image			Likelihood of Attaining Image			Current Attainment of Image		
	R ² = 22.5%			R ² = 44.4%			R ² = 44.0%			R ² = 39.8%		
	β	F (df); sig.	Partial η ²	β	F (df); sig.	Partial η ²	β	F (df); sig.	Partial η ²	β	F (df); sig.	Partial η ²
Corrected Model	----	2.978 (8/82); p = 0.006	----	----	7.191 (9/81); p < 0.0001	----	----	6.273 (10/ 80); p < 0.0001	----	----	5.947 (9/81); p < 0.0001	----
Intercept	4.664	1.080 (1/82); p = 0.302	0.013	14.371	8.964 (1/81); p = 0.004	0.100	11.981	3.194 (1/ 80); p = 0.078	0.038	6.110	0.915 (1/81); p = 0.342	0.011
Mood	----	----	----	----	----	----	----	----	----	----	----	----
CSES Others	----	----	----	0.330	3.441 (1/81); p = 0.067	0.041	0.304	3.280 (1/ 80); p = 0.074	0.039	----	----	----
CSES Looks	----	----	----	0.802	16.613 (1/81); p = 0.000	0.170	0.659	13.628 (1/ 80); p < 0.0001	0.146	0.563	14.457 (1/81); p = 0.083	0.037
CSES Failure	----	----	----	----	----	0.274	0.274	2.936(1/ 80); p = 0.091	0.035	----	----	----
CSES Performance	----	----	----	----	----	----	----	----	----	----	----	----
GCOS Controlled Orientation	0.164	7.907 (1/82); p = 0.006	0.088	----	----	----	----	----	----	0.087	3.071 (1/81); p = 0.000	0.151
GCOS Impersonal Orientation	----	----	----	----	----	----	----	----	----	----	----	----
GCOS Autonomous Orientation	----	----	----	----	----	----	----	----	----	----	----	----
MMCSI	----	----	----	----	----	----	----	----	----	----	----	----
ATSS	----	----	----	----	----	----	----	----	----	----	----	----
Condition	----	2.795 (3/82); p = 0.045	0.093	----	0.133 (3/81); p = 0.940	0.005	----	0.634 (3/ 80); p = 0.595	0.023	----	1.856 (3/81); p = 0.144	0.064
Gender	----	1.266 (1/82); p = 0.264	0.015	----	13.075 (1/81); p = 0.001	0.139	----	18.485(1/ 80); p = 0.000	0.188	----	11.937 (1/81); p = 0.001	0.128
Condition * Gender	----	1.179 (3/82); p = 0.323	0.041	----	1.518 (3/81); p = 0.216	0.053	----	0.281(3/ 80); p = 0.839	0.010	----	0.920. (3/81); p = 0.435	0.033

Table 20: Study 2 Results of 2x4 ANCOVAs for Intrinsic Aspirations

Predictors	Dependent Variables: Intrinsic Aspirations																	
	Current Attainment of Personal Growth			Importance of Community Contributions			Likelihood of Attaining Community Contributions			Importance of Health			Likelihood of Attaining Health			Current Attainment of Health		
	R ² = 19.2%			R ² = 33.4%			R ² = 13.4%			R ² = 37.5%			R ² = 29.6%			R ² = %		
	β	F (df); sig.	Partial η ²	β	F (df); sig.	Partial η ²	β	F (df); sig.	Partial η ²	β	F (df); sig.	Partial η ²	β	F (df); sig.	Partial η ²	β	F (df); sig.	Partial η ²
Corrected Model	---	2.132 (9/81); p = 0.036	---	---	4.506 (9/81); p < 0.0001	---	---	1.590 (8/82); .140	---	---	5.406 (9/81); p < 0.0001	---	---	3.775 (9/81); p = 0.001	---	---	3.729 (8/82); p = 0.001	---
Intercept	13.398	4.615 (1/81); p = 0.035	0.054	9.961	3.344 (1/81); p = 0.071	0.040	21.510	20.333 (1/82); p = 0.000	0.199	25.908	45.776 (1/81); p = 0.000	0.361	34.955	25.799 (1/81); p = 0.000	0.242	13.535	3.339 (1/82); p = 0.071	0.039
Mood	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
CSES Others	---	---	---	---	---	---	---	---	---	-0.144	3.438 (1/81); p = 0.067	0.041	---	---	---	---	---	---
CSES Looks	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
CSES Failure	-0.267	3.419 (1/81); p = 0.068	0.040	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
CSES Performance	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
GCOS Controlled Orientation	---	---	---	---	---	---	-0.109	3.919 (1/82); p = 0.051	0.046	---	---	---	---	---	---	---	---	---
GCOS Impersonal Orientation	---	---	---	---	---	---	---	---	---	---	---	---	-0.076	3.779 (1/81); p = 0.055	0.045	---	---	---
GCOS Autonomou s Orientation	0.087	3.349 (1/81); p = 0.071	0.040	0.250	27.355 (1/81); p = 0.000	0.252	---	---	---	0.133	23.933 (1/81); p = 0.000	0.228	0.089	5.013 (1/81); p = 0.028	0.058	0.124	5.206 (1/82); p = 0.025	0.060
MMCSI	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
ATSS	---	---	---	0.085	3.444 (1/81); p = 0.067	0.041	---	---	---	---	---	---	---	---	---	---	---	---
Condition	---	3.080 (3/81); p = 0.032	0.072	---	2.260 (3/81); p = 0.087	0.074	---	2.575 (3/82); p = 0.060	0.074	---	2.790 (3/81); p = 0.046	0.094	---	0.630 (3/81); p = 0.598	0.023	---	3.946 (3/82); p = 0.011	0.126
Gender	---	0.496 (1/81); p = 0.483	0.006	---	3.108(1/81); p = 0.081	0.031	---	0.301 (1/82); p = 0.585	0.004	---	1.226 (1/81); p = 0.271	0.015	---	13.189 (1/81); p = 0.000	0.140	---	0.832 (1/82); p = 0.364	0.010
Condition *	---	0.459 (3/81);	0.017	---	3.035 (3/81);	0.070	---	1.253 (3/82);	0.044	---	0.9150 (3/81);	0.033	---	0.169 (3/81);	0.006	---	1.375 (3/82);	0.048

Gender	p = 0.712	p = 0.034	p = 0.296	p = 0.437	p = 0.917	p = 0.256
--------	-----------	-----------	-----------	-----------	-----------	-----------

7.6.2.2.2. Hypothesis 2: Motivation for Consumption

The Situational Motivation for Consumption Scale was employed to test Hypothesis H2. According to H2 (please see "Objectives and Hypotheses of the Project" section) respondents were expected to exhibit a controlled Motivation for consuming goods and services when exposed to sexual imagery. Unfortunately the Hypothesis was not supported. Participants not only were not found to differ across the advertising conditions but also there were no observed differences across genders. The 2X4 ANCOVAs revealed that in terms of motivation for consumption and satisfaction with basic needs the consumers were not affected by changes in sexual imagery and both genders reported very similar types and motivation for consumption.

These results are discussed in the general discussion part of the theses combined with the relevant results from study one.

7.6.2.2.3. Hypothesis 3: Basic Needs Satisfaction

The Basic Needs Scale was employed to test Hypothesis H3. According to H3 (please see "Objectives and Hypotheses of the Project" section) respondents were expected to exhibit lowered levels of satisfaction with their basic needs: a) Autonomy, b) Competence and c) Relatedness, when exposed to sexual imagery. The hypothesis is partially supported.

The 2x4 ANCOVA (please see the summary ANCOVA results in Table 21 for the BNS) reported differences regarding the satisfaction of Autonomy and the satisfaction of Relatedness but not regarding the satisfaction of Competence. This is not unexpected since Competence is a need mainly oriented towards satisfaction with the need to feel competent, feel capable of doing things, feel skilled and able to learn new skills, and therefore does not directly relate to sexual imagery or any of the possible effects that sexual imagery has been reported to have on individuals' psyche.

Regarding satisfaction with Autonomy respondents exhibit differences across the advertising conditions but not across genders. Regarding satisfaction with Relatedness respondents exhibit differences across the advertising conditions as well as across gender. In Relatedness the results also show a significant interaction effect between the advertising conditions and gender.

The following paragraphs describe the results in detail.

Autonomy: The Autonomy sub-scale of the Basic Needs Satisfaction scale asked respondents to rate how satisfied they are with feeling autonomous in life. CSES Performance ($F(1, 78) = 2.944, p = 0.090, \eta^2_p = 0.036$), GCOS Controlled Orientation ($F(1, 78) = 10.208, p = 0.002, \eta^2_p = 0.116$), GCOS Impersonal Orientation ($F(1, 78) = 14.969, p < 0.001, \eta^2_p = 0.161$), GCOS Autonomous Orientation ($F(1, 78) = 4.959, p = 0.029, \eta^2_p = 0.060$) and ATSS ($F(1, 78) = 2.906, p = 0.090, \eta^2_p = 0.036$) were significant covariates such that the more contingent one's self esteem was on performance the lower their satisfaction with feeling autonomous was, the more individuals exhibited a control orientation the lower their satisfaction with feeling autonomous was, the more individuals exhibited an impersonal orientation the lower their satisfaction with feeling autonomous was, but the more individuals exhibited an autonomous orientation the higher their satisfaction with feeling autonomous was and the more sexually liberal respondents were the higher their satisfaction with feeling autonomous was. Main effects were found for the advertising conditions ($F(1, 78) = 3.863, p = 0.012, \eta^2_p = 0.0129$) but not gender. Planned orthogonal contrasts (Helmert method) revealed that respondents in the semi-nude condition reported lower satisfaction with feeling autonomous compared to respondents in the clothed condition ($t(78) = 2.160, p = 0.034$) and respondents in the product only condition also reported lower satisfaction with feeling autonomous compared to the respondents in the clothed condition ($t(78) = 2.947, p = 0.004$).

Relatedness: The Relatedness sub-scale of the Basic Needs Satisfaction scale asked respondents to rate how satisfied they are with the relationships in their life and with feeling related to other people in their life. CSES Performance ($F(1, 81) = 7.499, p = 0.008, \eta^2_p = 0.085$) and GCOS Autonomous Orientation ($F(1, 81) = 19.274, p < 0.0001, \eta^2_p = 0.192$) were significant covariates such that the more contingent one's self esteem was on performance the lower their satisfaction with relatedness was but the more individuals exhibited an autonomous orientation the higher their satisfaction with feeling autonomous was and the more sexually liberal respondents were the higher their satisfaction with relatedness was. Main effects were found for the advertising conditions ($F(3, 81) = 2.232, p = 0.090, \eta^2_p = 0.076$), gender ($F(1, 81) = 5.581, p = 0.021, \eta^2_p = 0.064$) as well as the interaction between the advertising conditions and gender ($F(3, 81) = 2.079, p = 0.100, \eta^2_p = 0.071$). Planned orthogonal contrasts and post-hoc analyses with "p-values" adjusted using Bonferroni correction revealed that males experienced higher satisfaction with relatedness compared to females ($M_M = 57.36, M_F = 55.35, F(1, 81) = 5.581, p = 0.021, \eta^2_p = 0.064$). Planned orthogonal contrasts (Helmert method) revealed that respondents in the semi-nude condition reported lower satisfaction with

relatedness compared to respondents in the clothed condition ($t(81) = 2.015, p = 0.047$) and respondents in the product only condition also reported lower satisfaction with relatedness compared to the respondents in the clothed condition ($t(81) = 2.000, p = 0.048$). The significant interaction effect reported is found in the nude condition where females experience significantly lower satisfaction with relatedness compared to males who experience a resurgence of their satisfaction with relatedness therefore higher satisfaction with relatedness overall.

Table 21: Study 2 Results of 2x4 ANCOVAs for Basic Needs Satisfaction

Predictors	Dependent Variables: Basic Needs Satisfaction					
	Autonomy			Relatedness		
	$R^2 = 46.9\%$			$R^2 = 34.9\%$		
	B	F (df); sig.	Partial η^2	B	F (df); sig.	Partial η^2
Corrected Model	----	5.751 (12/78); $p = 0.000$	----	----	4.815 (9/81); $p < 0.0001$	----
Intercept	27.592	12.693 (1/78); $p = 0.001$	0.140	30.192	16.672 (1/81); $p = 0.000$	0.171
Mood	----	----	----	----	----	----
CSES Others	----	----	----	----	----	----
CSES Looks	----	----	----	----	----	----
CSES Failure	----	----	----	----	----	----
CSES Performance	-0.282	2.944 (1/78); $p = 0.090$	0.036	-0.587	7.499 (1/81); $p = 0.008$	0.085
GCOS Controlled Orientation	-0.177	10.208 (1/78); $p = 0.002$	0.116	----	----	----
GCOS Impersonal Orientation	-0.187	14.969 (1/78); $p = 0.000$	0.161	----	----	----
GCOS Autonomous Orientation	0.113	4.959 (1/78); $p = 0.029$	0.060	0.268	19.274 (1/81); $p = 0.000$	0.192
MMCSI	----	----	----	----	----	----
ATSS	0.078	2.906 (1/78); $p = 0.090$	0.036	----	----	----
Condition	----	3.863 (3/78); $p = 0.012$	0.129	----	2.232 (3/81); $p = 0.090$	0.076
Gender	----	0.581 (1/78); $p = 0.448$	0.007	----	5.581(1/81); $p = 0.021$	0.064
Condition * Gender	----	0.600 (3/78); $p = 0.617$	0.023	----	2.079 (3/81); $p = 0.100$	0.071

7.6.2.2.4. Hypothesis 4: State Self-Esteem

The State Self-Esteem Scale was employed to test Hypothesis H4. According to Hypothesis H4 (please see "Objectives and Hypotheses of the Project" section) consumers were expected to exhibit lower state self-esteem across self-esteem domains when exposed to sexual imagery. Unfortunately the Hypothesis was not supported. Participants did not differ across either the advertising conditions or across genders. The 2X4 ANCOVAs revealed that for the international sample individuals were not affected by changes in sexual imagery and the differences between genders were not statistically significant.

These results are discussed upon in the general discussion part of the theses combined with the relevant results from study one.

7.6.2.2.5. Hypothesis 5: Body (Dis)satisfaction

The Body Image States Satisfaction scale was employed to test Hypothesis H5. According to H5 (please see "Objectives and Hypotheses of the Project" section) consumers were expected to exhibit lowered Body Satisfaction when exposed to sexual imagery. The hypothesis was partially supported. The 2x4 ANCOVA (please see the summary ANCOVA results in Table 22 for BISS) reported differences in BISS across both conditions but not across genders. However the observed results do not exhibit consistent lowering of BISS across the conditions of sexual imagery but instead respondents' body satisfaction heightens in the clothed condition from the control condition and then drops continuously for the semi-nude and the nude condition. This particular pattern in study two, which comes as a stark contrast to the U-shaped pattern in study one, is briefly discussed in the discussion section of study two below and then elaborated fully in the general discussion section.

The following paragraph describes the results in detail.

The BISS asked respondents to rate their current level of satisfaction with their body. CSES Looks ($F(1, 82) = 3.588, p < 0.062, \eta^2_p = 0.042$) was the only significant covariate at a 0.10 p-value level such that the more contingent one's self-esteem was on appearance the less body satisfaction they experienced. Main effects were found for the advertising conditions ($F(3, 82) = 2.976, p = 0.036, \eta^2_p = 0.098$) but not gender. Planned orthogonal contrasts (Helmert method) revealed that respondents in the semi-

nude condition reported lower body satisfaction compared to respondents in the clothed condition ($t(82) = 2.634, p = 0.010$).

Table 22: Study 2 Results of 2x4 ANCOVAs for Body Image States Scale

Predictors	Dependent Variables: Body Image State Satisfaction		
	Body Image State Satisfaction		
	R ² = 16.6 %		
	β	F (df); sig.	Partial η^2
Corrected Model	----	2.045 (8/82); p = 0.051	----
Intercept	41.877	110.348 (1/82); p = 0.000	0.574
Mood	----	----	----
CSES Others	----	----	----
CSES Looks	-0.398	3.588 (1/82); p = 0.062	0.042
CSES Failure	----	----	----
CSES Performance	----	----	----
GCOS Controlled Orientation	----	----	----
GCOS Impersonal Orientation	----	----	----
GCOS Autonomous Orientation	----	----	----
MMCSI	----	----	----
ATSS	----	----	----
Condition	----	2.976 (3/82); p = 0.036	0.098
Gender	----	.697 (1/82); p = 0.406	0.008
Condition * Gender	----	.406 (3/82); p = 0.749	0.015

7.7. Brief Discussion

The results of the second study served to try and replicate the results of the first study and see whether different culture backgrounds would produce different or similar response mechanisms. Unfortunately study two not only did not replicate the results of study one but it also generated new patterns that require interpretation. Although several of the same outcome variables are represented in the two samples, overall the patterns participants exhibit in study two and study one are completely different. As in study one the results of study two partially corroborate previous research on the effects of the 'thin ideal' and the 'masculine' ideal on individuals (cf. Halliwell, Dittmar and Osborne, 2007; Halliwell and Dittmar, 2004). However they extend the literature by showing that possible mating and arousal effects might mediate response to the relevant outcome variables.

The results of study two corroborate study one in reporting that females tend to be increasingly pre-occupied with appearance concerns compared to their male counterparts (cf. Mask and Blanchard, 2011a; Pelletier and Dion, 2007).

The results also show that the clothed condition produces highly positive results for the international sample of study two, something that would point to possible romantic mating effects.

The results of study two show that although exposure to explicit sexual imagery has negative results, exposure to subtle sexual imagery might actually produce positive results.

CHAPTER 8

8. GENERAL DISCUSSION

Despite the fact that the project hypotheses were not supported exactly as predicted, the data obtained from the two studies presented above still tell an important story. The present chapter presents this story by bringing together the results from the two studies presented. It focuses around the particular hypotheses that were formed early on and discusses the results for each hypothesis across studies and according to the relevant theory.

The project hypothesised (H1) that when consumers are exposed to sexual imagery they would uniformly exhibit heightened extrinsic life aspirations and lowered intrinsic life aspirations across advertising conditions. The project also expected that this uniform tendency would hold true for all types of aspirations that is the relative importance of each aspiration, their future likelihood of attainment, and their current levels of attainment. Although there was no explicit hypothesis regarding genders following from the previous reviewed literature there was an expectation that females would experience more intense effects compared to males. Contrary to the project's hypotheses, exposure to different levels of sexual imagery did not appear to result uniformly in heightened extrinsic and lowered extrinsic aspirations. From the seven categories of aspirations (viz. intrinsic aspirations: meaningful relationships, personal growth, and community contributions, and extrinsic aspirations: wealth, fame, and image), differences across conditions were found only in the case of the importance of staying healthy, current attainment of community contributions, and current attainment of health for the UK sample and in the case of current attainment of wealth, the importance of community contributions and health, the likelihood of attaining a desired level of community contributions and the current attainment of personal growth, community contributions and health for the international sample. And in those cases extrinsic aspirations were not heightened uniformly across conditions nor were intrinsic aspirations lowered uniformly. For the UK sample all the domains in which differences were observed across conditions were intrinsic aspirations domains and contrary to the hypotheses aspirations were not lowered but actually heightened uniformly. In the international sample differences were observed only for one domain of extrinsic aspirations, that of the current attainment of wealth, where again there is no uniform increase across conditions or in this case a

uniform decrease across conditions. Respondents exhibit an increase in their perceived current attainment of wealth from the control to the clothed condition and then a decrease from the clothed to semi-nude and nude conditions. The pattern of differences observed in the intrinsic aspirations domains for the international sample does not change significantly. There are still no uniform patterns observed but in all cases the clothed condition seems to heighten the level of the different aspirations type compared to both the control condition as well as the increasing levels of nudity.

The observed patterns suggest that in the case of the UK sample exposure to sexual imagery leads to heightened intrinsic motivations while in the case of the international sample exposure to sexual imagery has a heightening effect for both intrinsic and extrinsic aspirations in the clothed condition and a lowering effect for all other conditions.

No previous study has utilised life aspirations as an outcome variable to assess the effects of sexual imagery. This makes this study unique in this respect. In fact the framework of self-determination theory has been scarcely applied in consumer behaviour and is similarly scarce in studies that investigate the effects of the thin ideal on individuals (see for example Mask and Blanchard (2011a; 2011b) for an application of SDT regarding the effects of the thin ideal).

In order to understand the presented results one needs first to look at the results closely regarding each aspiration domain and second combine the general insights of SDT with an attempt to extend current theorisations on the psychological effects of sexual imagery in advertising.

Regarding the fact that a lot of life aspiration domains did not exhibit differences across the advertising conditions one needs to turn to the essential nature of the life aspirations scale. Kasser and Ryan (1993, 1996) developed the scale through a survey method to measure the content of goal pursuits of individuals. As goal pursuits aspirations were created to be rather long-term goals although more specific in form compared to subjective values measure such as Rokeach's (1973) list of values or Schwartz's (1992) value theory and survey. The aspirations index has been used in experiments (see for example Vansteenkiste, Timmermans, Lens, Soenens, and Van den Broeck, 2008; Vansteenkiste, Simons, Soenens, and Lens, 2004) mainly either as a measure of individual differences, that is to assess goal pursuits on the trait level, or as a manipulation variable, that is to manipulate the goal content orientation of individuals, but not as an outcome variable that is expected to change through manipulation of elements of the environment. Although there is ample research that has investigated the effects of

striving to attain particular aspirations or even attaining said aspirations, the results are unclear as to whether individuals' scores on the aspirations index can be immediately affected by experimental manipulations as the one reported here. Therefore as long-term pursuits aspirations may possibly remain relatively unchangeable after experimental manipulations. Kasser (2004) puts forth an argument for considering aspirations as organismic values. In his theoretical expansion of SDT aspirations serve as high level pursuits similar to values that serve to organise human actions towards particular aspirational strands. If aspirations are indeed such high level constructs then it is possible they may be difficult to manipulate experimentally.

Another reason why it might be the case that the aspirations index did not present uniform and consistent differences across conditions may be, as Reichert, LaTour, and Ford (2011) point out, that in the presence of significant individual differences covariate variables, differences between advertising conditions of different levels of sexual imagery dissipate.

Even so, the differences that were observed in the aspirations index both across conditions as well as across gender still have a story to tell. The following paragraphs look at each aspiration domain and the relevant results between the UK and the international sample and comment on their importance and on further reasons for how the observed patterns may be justified.

The first domain of extrinsic aspirations is 'Wealth'. Only current attainment of wealth produced significant results for the international sample. The pattern was such that ratings of current attainment of wealth increased in the clothed condition from the control condition and then decreased as nudity increased to semi-nude and nude condition. According to Roney (2003) when males are exposed to the opposite sex they tend to exhibit a mating profile and represent themselves as more powerful mates including reports of higher income (see also Sundie, Kenrick, Griskevicius, Tybur, Vohs, and Beal, 2011; Griskevicius, Tybur, Sundie, Cialdini, Miller, and Kenrick, 2007; Roney, Mahler, and Maestripieri, 2003). Therefore the project expected similarly that at least males would exhibit a uniform increase of wealth ratings throughout the advertising conditions. This result was not observed. Instead at least from the pattern observed for the international sample the present results suggest that both men and women display heightened wealth aspirations (at least in terms of current attainment) when they are exposed to subtle sexual imagery which can serve as a primer for romantic relationships

as opposed to explicit sexual imagery that serves more as an arousal primer (see for example Das, Galekh and Vonkeman, 2015; LaTour, 1990).

The second domain of extrinsic aspirations is 'Fame'. The domain of fame exhibited differences across gender and only for the UK sample not for the international sample. In the UK sample both importance of fame as well as likelihood of attaining fame were higher for males compared to females. Following the mating logic that was developed in the previous paragraph one could expect that males would actually exhibit consistently and uniformly higher valuations of fame across advertising conditions. Higher nudity conditions would stimulate more of a mating effort and therefore higher reporting of fame valuations since famous people attract more potential mates. However, although there was a clear distinction across gender there were no differences across advertising conditions. One possibility that may explain this finding is that UK males have already internalised the aspiration of fame to such a degree that a manipulation of external stimuli cannot create additional valuations of fame.

The third domain of extrinsic aspirations is 'Image'. Since image is the domain that rates appearance and attractiveness related concerns the project expected that here at least intense differences should be present across conditions as sexual imagery increased. Instead in both the UK and the international sample women were found to be more pre-occupied with the domain of image in terms of importance, likelihood of attainment and current levels of attainment compared to their male counterparts but no differences were found across conditions. This corroborates previous research that shows that women are generally influenced to uphold particular unrealistic beauty and appearance standards/ideals (Dittmar, Halliwell and Ive, 2006; Dittmar and Howard, 2004; Halliwell and Dittmar, 2004; Hargreaves and Tiggerman, 2003). The aforementioned research can also help explain why no differences were observed across conditions least as far as the females are concerned.

As Dittmar, Halliwell and Ive (2006) suggest unrealistic ideals of beauty and appearance seem to be internalised in females from a very young pre-adolescent age (8 years old) damaging female body image, and contributing to increased risks of disordered eating and extreme weight management techniques for the years to come. Dittmar, Halliwell and Ive (2006) also show that the immediate exposure effects to Barbie dolls which serve as an aspirational ideal stops at that same age when the ideal has been internalised. Therefore one can surmise that similarly in the present study the differences across conditions were not significant due to the fact that the experimental stimuli closely

resembled existing advertising imagery and the participants considered them common depictions. Especially in the UK sample the thought listing task revealed that participants did indeed consider the experimental stimuli advertisements common depictions in everyday life and therefore nothing to be alarmed by (see Table 5 and 6). The international sample similarly, although they did not clearly specify as such, has been inculcated with western beauty ideals through global advertising campaigns and the distribution of western magazines overseas (see for example Lee (1999, 2004) and Jung and Forbes (2007) regarding the generalised adoption of western beauty ideals by Asian consumers and the induced increases in body dissatisfaction and eating disorders). Therefore, having already internalised the ideals portrayed in the experimental stimuli a single exposure was not enough to create additional anxiety in the participants or bring existing anxieties to the foreground.

The first domain of intrinsic aspirations is 'Personal Growth'. Only current attainment of personal growth produced significant results for the international sample. The pattern was such that as the extrinsic domain of wealth before ratings of current attainment of personal growth increased in the clothed condition from the control condition and then decreased as nudity increased to semi-nude and nude conditions. The project originally expected that exposure to sexual imagery would induce lower desire to pursue intrinsic aspirations in general. But this result was not observed. Instead, at least from the pattern observed for the international sample, the present results suggest that, as in the case of wealth above, both men and women display heightened personal growth aspirations (at least in terms of current attainment) when they are exposed to subtle sexual imagery which can serve as a primer for romantic relationships as opposed to explicit sexual imagery that serves more as an arousal primer (see for example Das, Galekh and Vonkeman, 2015; LaTour, 1990). According to mating research (e.g. Roney, 2003) one should expect males to exhibit first and foremost higher valuations of extrinsically regulated indices of power and success to portray themselves as strong mates. However, as Sheldon (2007) notes, females evaluating potential mates do place an important emphasis on males that exhibit high intrinsic aspirations as opposed to just extrinsic aspirations that were traditionally considered to be social cues of success. Such an alternative view of mating selection can provide a possible explanation to the observed results.

The second domain of intrinsic aspirations is 'Meaningful Relationships'. The domain of meaningful relationships exhibited significant differences again only across

gender and only for the UK sample. Females placed more emphasis on the importance of meaningful relationships and considered having attained a greater degree of meaningful relationships compared to their male counterparts. Again the original expectation was that both genders would exhibit lower uniform valuations of meaningful relationships. Both males and females were expected to be willing to engage with more frivolous as opposed to meaningful relationships either due to arousal (Ariely and Loewenstein, 2006) or due to the adoption of a mating profile (Hill and Durante, 2011). However the present results suggest no such differences. One possibility that might explain these findings is that UK females have internalised the aspirations of creating and sustaining meaningful relationships so deeply that arousal and adoption of a mating profile does not any difference in their valuations of meaningful relationships.

The third domain of intrinsic aspirations is 'Community Contributions'. Community contributions produced a set of differences across the UK and the international sample. Importance of community contributions produced significant results across gender for the UK sample but both across gender and conditions in the international sample. In the UK sample females exhibit higher valuations of the importance of community contributions across conditions compared to their male counterparts while in the international sample females exhibited lower valuations of the importance of community contributions across conditions compared to their male counterparts. Also in the international sample the males exhibit a spike in their valuations of community contributions in the clothed condition. This complete reversal of valuations in community contributions between the UK and the international sample merits further investigation.

Taken together the results for both valuations of meaningful relationships and community contribution would suggest that females in the UK sample simply have generally adopted and internalised traditional gender role aspirations that ascribe to the female the role of the carer, caregiver, emotional and loving mother.

While results from the international sample suggest a similar interpretation, as in the case of valuations of personal growth, where males exhibit heightened valuations of intrinsic value as a potential mate attraction strategy.

The likelihood of attaining future community contributions produced significant results across conditions in the international sample and the current level of attainment of community contributions produced differences across conditions in the UK sample. In the first case the likelihood of attaining future community contributions again exhibits patterns where the valuations of future community contributions increase in the clothed

condition from the control condition and decrease in the semi-nude and nude conditions. Again it could be a function of the clothed condition providing a primer for mating effort and romantic relationships while the other conditions detracted from such effort.

The fourth and final domain of intrinsic aspirations is 'Health'. Health like community contributions produced a set of contrasting results across the two studies. Importance of health was significant across conditions and across gender in the UK sample but only across conditions in the international sample. Likelihood of future health attainment produced significant results only in the international sample and only across genders and finally current attainment of health produced results across conditions in both samples but with a different pattern. In the UK sample the valuations of health increased uniformly from condition to condition while in the international sample valuations spiked for the clothed condition from the control condition and then fell for the semi-nude and nude condition. In both samples females exhibit higher valuations of health compared to males and this result adds to female pre-occupation with appearance and staying fit. The fact that in the UK sample health valuations rise across conditions while in the international sample they only rise for the clothed condition could be a signal of mating profile adoption. The international sample is influenced more by imagery that insinuates a romantic bond while the UK sample is influenced more from imagery that serves to arouse.

Aspirations in general offered a very muddled image of the effects of sexual imagery on consumer motivational processes. The following paragraphs discuss further the results regarding the other outcome variables and finally there are certain general comments regarding the importance of the observed covariate effects and how these might explain the results observed.

The project also hypothesised (H2) that when consumers are exposed to sexual imagery they exhibit a controlled Motivation for consuming goods and services. That is the project hypothesised that after exposure to sexual imagery consumers would exhibit heightened external regulation for consumption and lowered intrinsic motivation and identified regulation. Unfortunately the hypothesis was not corroborated in either study. Neither participants in the UK sample nor participants in the international sample exhibited any statistically significant differences in any type of motivation for consumption. The 'Situational Motivation Scale (SIMS)' (Guay, Vallerand and Blanchard; 2000) that was used to capture the differences in motivations for consumption was originally constructed according to the tenets of self-determination theory to measure

motivations for engaging in a particular task. Tasks in the premises of self-determination theory are usually well-defined activities (e.g. playing with a puzzle). In a broader frame activities may be less well-defined but usually have a particular end goal at least from the point of view of the individual. The SIMS for example was developed through a variety of studies, some of which investigated academic motivation. But even studying for a degree is much more well-defined than speaking in general of consumption of goods and services. It is possible this generalised expression of the scale did not allow significant differences to appear. Consuming goods and services consists of an extremely diverse sum of possible particular consumption activities each of which may have its own unique motivation. The project expected that exposure to sexual imagery would lead individuals to generally consume goods and services for extrinsic motivations. Probably if, instead of investigating how sexual imagery affects consumption of goods and services in general, the project investigated how sexual imagery affects the consumption of the particular goods and services portrayed in the advertising stimuli, the results would be different. Additionally, the absence of results may very well indicate that motivation for consumption of goods and services in general is quite abstract and therefore not to be affected by situational manipulations of particular advertising stimuli.

The project further hypothesised (H3) that when consumers are exposed to sexual imagery they exhibit lowered levels of satisfaction with their basic needs: a) Autonomy, b) Competence and c) Relatedness. Contrary to the project's hypothesis study one did not show any effects of sexual imagery on the satisfaction of participant's basic needs and study two showed differences only for the domains of Autonomy and Relatedness. The absence of differences for Competence can be justified by the fact that competence as a basic need is related with a general feeling of competence in all areas of life and the ability to learn new skills or obtain new knowledge areas that would not normally be influenced by exposure to sexual imagery. Regarding Autonomy significant differences were found across advertising conditions. Again the differences found in the satisfaction of autonomy follow the well-delineated pattern in the international sample where participants exhibit a spike in the satisfaction of autonomy in the clothed condition from the control condition and a decrease in the semi-nude and nude condition (the same pattern observed across conditions for the different aspiration domains). The differences found in the satisfaction of relatedness follow again the same pattern for females but in this case males exhibit extreme satisfaction with their relatedness also in the nude condition.

No previous research has ever examined the effects of sexual imagery or sexual stimuli for that matter on the satisfaction with basic needs which makes the present project unique in this aspect. Taken together all the results in the international sample until now seem to suggest that the participants in study two exhibit really positive effects when exposed to the clothed condition and then negative effects when exposed to the semi-nude and nude conditions. Their pattern of thought listing responses does not differ in directionality compared to the participants in study one. However, the international participants seem to experience particularly negative effects in the semi-nude and nude conditions. Previous research has already exhibited that international participants from Asian countries are not only more offended by depictions of sexual westernised advertising imagery but also tend to internalise the portrayed beauty ideals more harshly and suffer from increased anxieties (e.g. Xu, Mellor, Kiehne, Ricciardelli, McCabe, and Xu, 2010; Jung, and Forbes, 2007; Ricciardelli, McCabe, Williams, and Thompson, 2007). This observation may explain then why the international participants (mostly from South-East Asian countries) experience relatively positive feelings when exposed to the clothed condition as opposed to the semi-nude and nude conditions. The romantic connotations of the clothed condition may give rise to a more positive internalisation of the ideals portrayed compared to the explicit and intense clearly sexual connotations of the semi-nude and nude conditions.

The project in addition hypothesised (H4) that when participants are exposed to sexual imagery they would exhibit lowered State Self-Esteem. Since the State Self-Esteem that was used to assess self-esteem was split into four subscales, participants were expected to exhibit lowered self-esteem in all subscales uniformly across conditions. Contrary to the hypothesis results indicated differences in self-esteem only in study one and only in the sub-scale of SSES Looks for both conditions and gender. Differences in study one were also observed for SSES Performance and SSES General Self but only for gender. In all three sub-scales females experienced lower self-esteem than males. In SSES Looks both males and females exhibit a U-shaped curve where their self-esteem falls from the control to the clothed condition and then re-surges back in the semi-nude and nude condition. The results for self-esteem are discussed below together with the results for body (dis)satisfaction since these two outcome variables are most commonly assessed together in studies that look into effects on sexual imagery and because at least for study one both SSES Looks and the BISS exhibit the same pattern of differences.

The project finally hypothesised (H5) that when consumers are exposed to sexual imagery they exhibit heightened Body-Dissatisfaction/lowered Body Satisfaction. The BISS produced differences in both studies although in study one both conditions and gender exhibited significant differences and in study two only the advertising conditions exhibited differences. The pattern of differences for the BISS in study one was the same as the pattern for SSES Looks. Both variables exhibited a U-shaped response where appearance related self-esteem and body image satisfaction re-surged after an initial fall from the control to the clothed condition. In study two BISS exhibited the same pattern as the life aspirations and the satisfaction with basic needs whereby body satisfaction was increased from the control to the clothed condition and then fell in the semi-nude and nude conditions.

Possible reasons for the similar pattern of results across the different outcome variables with regards to study two are discussed further down the discussion section in the elaboration of the role of the covariate individual differences variables in predicting the outcome variables.

The following paragraphs discuss in detail the U-shaped pattern exhibited in both SSES Looks and BISS for study one. The U-shaped pattern can be understood better if one takes into account the fact that the participants considered the experimental stimuli common depictions (Tables 5 and 6) and employed compensatory statements (Tables 5 and 6) when exposed to the semi-nude and nude conditions. The thought listing task exhibited that when participants from study one were exposed to the semi-nude and nude conditions they employed a range of defensive mechanisms to help safeguard themselves against the negative effects of sexual imagery on self-esteem and body image (dis)satisfaction. Previous literature on effects of sexual imagery on self-esteem and body image satisfaction (see for example Hawkins, Richards, Granley, and Stein, 2004) has generally reported negative effects on body satisfaction and self-esteem with relevant problems arising in disordered eating behaviours and negative well-being. However certain newer studies have started building a small body of research that can help identify potential defensive mechanisms that participants employ in order to recover from the negative effects on their self-esteem and body image (dis)satisfaction.

Häfner (2009) shows that when consumers are exposed to media images that they recognise as familiar (either due to the celebrity status of the model or because they had been exposed to similar media in the past) they would feel more beautiful and/or tend to assimilate the portrayed ideal such that the effect of comparison to said ideal would be

moderated. Häfner (2009) also showed that the degree to which consumers were familiar to the depicted images could predict the degree of assimilation versus contrast. In the present project the participants of study one clearly voiced their familiarity with the experimental stimuli ('Common Depictions' category in Tables 5 and 6), in fact some of their statements stated this familiarity in an aggressive manner (e.g. 'I have seen these images before in magazine they do nothing for me', 'This is nothing new', etc.) which would suggest a high degree of familiarity and therefore the existence of a moderating defensive factor that allowed self-esteem and body image to re-surge in the semi-nude and nude conditions.

Another mechanism that the participants of study one employed in order to reverse the negative effects of exposure to sexual imagery was the derogation of others ('Compensation Effect' category in Tables 5 and 6). According to Fein and Spencer (1997) in order to maintain their self-image in levels that are non-threatening individuals may engage in stereotyping and prejudice (several participants reported that the models depicted had been digitally altered which was not the case or that they would serve as better models for the advertisement, they would do the job better, etc.). As Fein and Spencer (1997) note this process is particularly salient when individuals need to maintain their image by judging others when their own self-image has been negatively threatened. Indeed sexual imagery in advertising sets unattainable ideals and standards of beauty, appearance and sexual behaviour that acts to threaten consumers' self-image; the results suggest that consumers work around this threat by derogating and attacking the models depicted in the imagery, therefore affirming their self-image and restoring their threatened self-image.

Mills, Polivy, Herman, and Tiggemann (2002) describe a similar self-enhancement mechanism that allows consumers to defend themselves against the comparison ideals present in sexual imagery in advertising. Self-enhancement does not relate to the derogation of others but to the inflation of the self to re-affirm a positive self-image. In the present project participants reported (again statements taken from the 'Compensation Effect' category in Tables 5 and 6) that they had the same body as the models or they didn't mind the depictions since they were themselves thin (for females) and muscular (for males). As Mills, Polivy, Herman, and Tiggemann (2002) note this type of self-enhancement is relevant particularly to consumers who are already actively trying to attain the ideals portrayed in the advertising sexual imagery (the research mentions the example of dieters) and the process of self-enhancement is strengthened to the degree

that the consumers believe the ideal portrayed to be attainable. Although the present project does not explicitly account for active efforts to attain the ideals portrayed in sexual imagery in advertising or for that matter the level of belief of attainability, the statements from the participants would suggest that at least some of the participants engaged in self-enhancement by judging others as evident through the derogation of the models.

Dunning (2007) suggests that self-enhancement or the bolstering of self-image may happen out of an effort of the consumers to harmonise the beliefs they hold true (sacrosanct) for themselves. According to Dunning (2007) positive self-beliefs such as appearance and performance, or in our case general self-esteem and body image beliefs that participants may have had, are considered sacrosanct and demand from the consumer to behave in a way that harmonises possible conflict that arises by stimuli that put such beliefs under question or challenge them. Self-affirmation and compensation behaviours are then employed to ensure sacrosanct beliefs are not threatened.

Another possible explanation for the defensive resurgence of both SSES Looks and the BISS is the amount of processing invited by imagery in the nude and semi-nude conditions. Tables 5 and 6 clearly show that the amount of thoughts by the participants increases across conditions from the control condition to the nude condition. A recent stream of research (see for example: Tiggemann and McGill, 2004; Tiggemann, Polivy, and Hargreaves, 2009) has outlined the importance of the quantity and quality of processing that takes place before participants are asked to report on their self-esteem and body-image satisfaction. Tiggemann and McGill (2004) report that the actual amount of comparison that the consumer engages in to compare them with the portrayed ideal mediates the level of body satisfaction they experience. Tiggemann, Polivy, and Hargreaves (2009) show that consumers experience better mood and body satisfaction when they use the ideals portrayed in advertisements not as direct upward comparison standards but as imaginary fantasies, therefore both the quality and the quantity of processing that consumers undertake makes a difference to how they then report on their self-esteem and body (dis)satisfaction. Similarly, Knobloch-Westerwick, (2014) shows that consumers who engage in social comparison to simply evaluate/judge for themselves how they fare against the portrayed ideals experience more body dissatisfaction compared to consumers who engage in social comparison in an effort to improve themselves and who in turn experience positive body satisfaction. In the present project the amount of thoughts increased for most categories as the levels of nudity increased therefore one can surmise that the participants employed greater cognitive effort and more processing of

the images presented to them in the nude and semi-nude conditions compared to the clothed and of course the control condition, therefore possibly denoting conscious responding in a theoretically counterintuitive manner. The study does not offer any data on whether participants actually engage in social comparison to evaluate/judge themselves or to improve themselves but the fact that the importance of health aspirations increases in study one could point towards a self-improvement social comparison.

Finally following through from the aforementioned argumentation there are certain methodological issues that might explain not only the defensive effects observed in SSES Looks and BISS but also the lack of generalised explicit differences across conditions for the different outcome variables. First, regarding the defensive coping or compensatory mechanisms that are observed in study one Wan, Ansons, Chattopadhyay, and Leboe, (2013) report that the use of blatant depictions of idealised imagery compared to subtle depictions of idealised imagery (in the present project: nude, semi-nude versus clothed) can lead to positive self-evaluation and a lower attitude towards the brand. This pattern of results is exactly mirrored in the results of the thought listing task. Second, Häfner, Jagsch, Kund, Mager, Pereira, and Zimmermann (2008) show that the formulation of the outcome questions might influence unconsciously the way participants respond when they have been previously exposed to self-threatening or self-discrepant ideals. Häfner, Jagsch, Kund, Mager, Pereira, and Zimmermann (2008) show that participants may avoid negative effects to the self not through conscious processing as the aforementioned research would suggest, but due to the type of questions they have been asked. That is, if participants are asked questions about parts of the self non-relevant to the threatening ideal, possibly reparative parts of the self, they avoid negative consequences to the self and report positive self-states. In fact Häfner, Jagsch, Kund, Mager, Pereira, and Zimmermann (2008) show that this defence mechanism may be activated completely unconsciously if the design of the experiment allows for it. Given the format of the post-exposure questionnaire it is possible that consumers were exposed to reparative parts of the self and these reparative parts caused the apparent defensive shift of self-esteem and body satisfaction to positive states in the explicit conditions. But due to the fact that self-esteem was in the beginning of the questionnaire while the BISS was at the end, this possibility seems tentative. However this ability of consumers to report positive self states by simply being asked to respond on non-relevant to the threatening ideal parts of the self may explain why there is a generalised absence of uniform observed differences across conditions. Sobol, and Darke, (2014) report that when consumers are exposed to

threatening, external to self-ideals they may exhibit motivation to improve performance in domains that fall outside the original comparison. In the present project sexual imagery is a gendered (masculine versus feminine) appearance related comparison. If however consumers can be motivated to perform in unrelated domains this might explain why a lot of non-relevant self domains to the comparison (e.g. aspirations, SIMS, etc.) report no differences across conditions.

A theme that runs throughout all the different hypotheses and needs to be discussed is the extremely significant effects of the individual differences variables in predicting the outcome variables possibly even to the expense of differences between advertising conditions and/or gender.

Reichert, LaTour, and Ford (2011) note that research in sexual imagery in advertising rarely accounts for mediating and moderating variables, this is especially so for individual differences variables that may explain differences in individual consumer responses and may account for important parts of predictive validity in the relevant regression models. Davies, Zhu, and Brantley (2007) for example investigating the moderating role of Sexual Self Schema, a cognitive trait that allows individuals to access sexual schemata in their memory, find that individuals that are characterised by negative sexual self schemata inhibit the access of sexual information in their memory and therefore when faced with advertisements that contain sexual imagery, and thus primes sexual schemata, these individuals try to block their mind from accessing the relevant information therefore making their reaction speeds lower, increasing frustration and defensive attitudes. Reichert, LaTour, and Ford (2011) further show that sexual self schema, sensation seeking and moral equity/relativism not only explained a greater proportion of the variance in predicting consumer responses than the manipulated levels of nudity but also revealed how consumer responses differentiated as nudity increased. Of course Reichert, LaTour, and Ford (2011) looked for consumer responses in marketing effects such as attitude towards the ad and the brand but similarly in the present project individual differences variables played an important role in explaining part of the variance of the consumer responses.

The present project employed mood, contingent self-esteem, general causality orientations and sexual liberalism as covariate variables. Mood was used to ascertain that differences in the outcome variables were not dependent on dispositional factors. Results indeed corroborated that mood was not a significant explanatory variable in predicting the

outcome variables. The rest of the individual differences variables however played an important role in understanding the consumer effects of sexual imagery in advertising.

Results corroborate previous research (Mask and Blanchard, 2011a; 2011b; Pelletier and Dion, 2007; Pelletier, Dion, Slovinec-D'Angelo, and Reid, 2004) in that levels of general self-determination predict psychological adjustment and mediate the effects of sexual imagery in advertising. In almost all the outcome variables that exhibited significant differences either across gender or across conditions or both, general causality orientations predicted part of the response. The results of the present research support the protective role of general self-determination in response to psychological pressures from sexual imagery in advertising. Participants who orient themselves in an autonomous manner that is participants who exhibit an autonomous causality orientation tend to interpret relevant environmental stimuli as information that is evaluated against the needs, interests and integrated values of the self in order to decide and regulate the appropriate course of action (Mask and Blanchard, 2011a). Similarly participants who orient themselves in a controlled manner, that is participants who exhibit a controlled causality orientation, tend to interpret environmental stimuli as external to the self's socially and extrinsically prescribed ideals and therefore feels pressured to behave according to these contingencies. In the present project autonomous causality orientation was a positive covariate in intrinsic aspirations in both study one and study two and a positive buffer in the valuation of self-esteem, satisfaction with basic needs and body image satisfaction in both study one and two. On the contrary controlled causality orientation was a positive covariate only in extrinsic aspirations and a negative covariate in all other outcomes. Similarly impersonal orientation which predicts individuals' amotivation, that is individuals who feel no motivation whatsoever to engage in any activity, was a negative covariate in all cases since it denotes the uninterested person who would try to avoid striving to complete anything, be that an external contingency or an intrinsic decision.

On a further note regarding the utility of SDT to provide explanations of the compensatory mechanisms presented in the present project the results of the present may be interpreted accordingly to the critique relevant to SDT (see section 3.4). SDT defines the self as integrative active and therefore agentic element that can operate as a protective buffer between environmental stimuli and possible deficit or defensive motives for behaviour. It is very possible that the differences between the UK and the international sample in terms of state self-esteem and body image (dis)satisfaction are

due to cultural differences in the construals of self and body image relationships (independent vs. interdependent) (Markus and Kitayama, 1991). It is also possible that said cultural differences explain the problematic functioning of the Aspiration variables as outcome variables with expressed differences between the two samples.

Contingencies of self-esteem were also important in outlining individual differences regarding the effects of sexual imagery in advertising. Results of the present project are consistent with previous research in that contingencies of self-esteem impact denote a fragile self-esteem and impact negatively on well-being (Paradise and Kernis, 2002). Contingent self-esteem had a positive impact in the valuations of extrinsic aspirations and a negative impact in the valuation of intrinsic aspirations, the levels of state self-esteem post-manipulation, the satisfaction with basic needs and body image satisfaction. In accordance with Self Determination Theory (Deci and Ryan, 2002) the results of the present project show that regulation based on contingent self-esteem leads to maladaptive outcomes and reduced well-being.

Finally sexual liberalism had a positive impact for alleviating the effects of sexual imagery on both self-esteem and body image satisfaction by offering a more flexible ground for the negotiation of the ideals presented by sexual imagery in advertising. The results are in congruence with previous studies that show that consumers with more liberal sexual attitudes are more comfortable with exposure and positive assimilation of sexual imagery in advertising (Lass and Hart, 2004) and that sexual liberalism mediates consumer responses to sexual imagery in advertising (Sengupta and Dahl, 2008; Mittal and Lassar, 2000; Gould, 1994).

8.1. Limitations and Future Research

The present project has several limitations that give rise to future research suggestions. First of all from the current results it becomes apparent that Aspirations may not serve as the best indicator of consumer motivation after exposure to sexual imagery in advertising. Results suggest that self and identity discrepancy issues are more salient with sexual imagery and therefore these should be investigated. Effort should be made to discover the optimal amount and type of variables that can operationalise the varying effects sexual imagery can have on an individual.

Second, the purported defensive effects should be replicated and an attempt to locate the generative mechanism of these defensive effects should be made.

Third, since sexual imagery affects individuals in more than one way (arousal, adoption of mating profile, defensive mechanisms, social comparisons and self/identity discrepancies) future attempts should try to clarify the mechanics of the different outcomes and their boundary conditions.

Fourth, the results of the present project suggest that cultural factors should be taken under consideration therefore there is need for more research to explain how non-western consumers interact with western advertisements, but also what the ideals of non-western media are and how these influence local consumers.

Fifth, the predictive and explanatory power of individual differences variables should be expounded further and future research should try to clearly distinguish between moderator and mediator variables as well as their interrelationships.

And last but not least, the following paragraphs provide a reflective account of experimental methods. The epistemological section of the present project (please chapter 5) discusses the general framework describing the function of experiments in social sciences and marketing. The present paragraphs therefore serve as an ex-post discussion of the different issues presented in the experiment integrating the experience gained from the present project and offering suggestions for future research. Following from the discussion of Falk and Heckman (2009) experiments were the methodology of choice for the present project due to the attempt to establish causal links between the operation of sexual imagery in advertising on the personal level and effects on individual aspirations, motivation, self-esteem and body-image. Albeit the fact that in order to claim causality a researcher needs to employ multiple experiments (only two were conducted in the premises of the present project) the initial results present implications for possible causal mechanisms that operate when individuals are exposed to sexual imagery in advertising.

The following paragraph addresses the possible problematic issues associated with experiments according to the framework of Falk and Heckman (2009) (chapter 5, p. 45) and then provides a more general discussion with suggestions for future research. As in previous studies the present project employed a student sample to test the effects under question. The problem with utilising student sample is the degree to which an experiment can produce realistic data since students lack resemblance with the 'real consumers' (James and Sonner, 2001). However, the project employed a student sample not only due to logistical and participant recruitment considerations but also because a) as aforementioned (introduction, p. 18) the majority of sexual imagery in advertising targets the youth (Reichert, 2003) and therefore students are a suitable sample, b) the project

assumes that the effects of sexual imagery in advertising are independent of the differences that separate student samples from 'real consumers' (i.e. the effects of sexual imagery are considered to be independent of education level and highly developed cognitive abilities) (Lynch, 1982) and c) the homogeneity of a student sample reduces possible error variance and strengthens the detection of a causal mechanism (Lynch, 1982). The sample size of the experiments in the present project followed the generalised rule of thumb to provide approximately 30 participants per condition (Sawyer and Ball, 1981). Indeed Falk and Heckman (2009) rightly note that the smaller sample employed in the experiments does not conform to the statistical rules about inference to the general population however the importance in the experimental procedure is first to establish the causal mechanisms behind particular effects and then generalise these mechanisms to a more general population usually through more generalised studies; an issue that can be addressed with future research. Falk and Heckman (2009) note that laboratory experiments specifically might lack resemblance with the real world since the experiment takes place in a highly controlled specially created for the purposes of the experiment environment. Indeed, the present project employed laboratory experiments. Despite the fact that traditionally speaking psychological practice tends to favour laboratory controlled experiments the present project employed laboratory experiments in an attempt to maximise internal validity of the results (Aacker, Kumar, Day and Leone, 2011). Internal validity is important when attempting to ensure that the manipulation of the independent variables is indeed the only reason for the changes in the dependent variables. A controlled laboratory setting allows for extensive controls of extraneous and confounding variables which might influence the effects observed on the dependent variables. The experimenter or Hawthorne effect is another important shortcoming in experiments (Falk and Heckman, 2009). The researcher in the present project avoided the Hawthorne effect by employing two mechanisms. First, the researcher placed themselves outside the laboratory for the most amount of time. The researcher after the initial information and questionnaire provision removed themselves from the laboratory space and only resurfaced at previously pre-allocated times to give the participants new material or collect the old materials. Secondly, the project employed a form of mild deception (Kimmel, 2001). Because sexual imagery and questions of body image are somewhat sensitive in nature and in order to limit participants from adapting their behaviour to the experimental manipulation the researcher initially informed the participants that they would be taking part in a research designed to measure advertising memory retention. Of course in accordance to APA guidelines (Behnke, 2009) the

researcher debriefed participants following the completion of the experiment. The use of deception coupled with a flat monetary participation reward / incentive were also conducive in minimizing self-selection and maximising the willingness of the participants to take part in the experiment (Jobber, Saunders , and Mitchell, 2004; Deci, Ryan, and Koestner, 1999). Future research could start by examining whether the observed effects of sexual imagery in advertising on individuals persist in more heterogeneous non-student samples accounting for the given individual differences variances that the results of the project show there is a pronounced effect on the dependent variables. A second step could possibly entail the execution of longitudinal field experiments to account for repeated exposures to sexual imagery in a natural setting. Future experimental designs could also consider possible variations of the manipulated variables in operationalising sexual imagery in advertising.

8.2. Contribution to knowledge

The main contribution of the present project is that it extends on the one hand the consumer behaviour theory on understanding the unintentional/psychological effects of sexual imagery in advertising, on the other it extends the body image and the "thin ideal" literature by showing that effects in self-esteem and body (dis)satisfaction are not all negative but under particular conditions the individual can alleviate the negative effects, and finally that it extends Self Determination Theory by showing the protective effect of general self-determination (causality orientations) on the negative effects of sexual imagery in advertising on consumer self processes.

No previous marketing/consumer behaviour study exists that explores the unintentional motivational processes that sexual advertising stimuli generate, or the wider effects they have on the consumer. At the same time no marketing/consumer behaviour study exists that shows the importance of contingent self-esteem and general causality orientations in understanding the effects of sexual imagery in advertising. The project introduces in the consumer behaviour literature original research using concepts from Self Determination Theory, a macro-theory of human motivation that has just started to be used in marketing. The project works towards Wyllie, Carlson and Rosenberger's (2014) call for further research in disentangling the effects of different levels of intensity generated by sexual stimuli in advertising.

The project has direct managerial relevance to issues of advertising strategy and marketing communication action while it investigates a controversial social issue of interest to regulators and companies alike.

As the traditional methods of advertising fail and companies press for captivation of the consumers' attention, sexual imagery may seem an easy solution to captivating audiences' attention (especially young audiences); however using sexual stimuli has detrimental effects in a society trying to avoid teenage pregnancies and teen consumption related to psychological trauma.

The results of this study demonstrate that although not all exposure to sexual imagery leads to negative psychological effects consumers still have to either experience self and/or identity discrepancies or build the necessary defensive mechanisms to alleviate these pressures. Autonomous self-determination seems to help as well as a self-esteem that is independent of contingencies.

REFERENCES

- Aaker D., Kumar V., Day G., and Leone R., (2011), *Marketing Research*, 10th edn. Wiley, Hoboken.
- Alexander M. W. and Ben Judd Jr., (1978), 'Do nudes in Ads Enhance Brand Recall?', *Journal of Advertising Research*, Vol. 18, No. 1, pp. 47 – 50.
- Allport G. W. and Odbert H. S., (1936), 'Trait-names: A psycho-lexical study', *Psychological Monographs*, Vol. 47, No. 211, pp. 1-171.
- Andersen S. M., Chen S., and Carter C., (2000), 'Fundamental Human Needs: Making Social Cognition Relevant', *Psychological Inquiry*, Vol. 11, No. 4, pp. 269–318.
- Ariely D. and Loewenstein G., (2006), 'The Heat of the Moment: The Effect of Sexual Arousal on Sexual Decision Making', *Journal of Behavioral Decision Making*, Vol. 19, pp. 87 – 98.
- Bailey S. D., and Ricciardelli L. A., (2010), 'Social comparisons, appearance related comments, contingent self-esteem and their relationships with body dissatisfaction and eating disturbance among women', *Eating behaviors*, Vol. 11, No. 2, pp. 107-112.
- Baker M. J. and Churchill G. A. Jr., (1977), 'The Impact of Physically Attractive Models on Advertising Evaluations', *Journal of Marketing Research*, 14 (November), 538-555
- Bauer J. J. and McAdams D. P., (2000), 'Competence, Relatedness, and Autonomy in Life Stories', *Psychological Inquiry*, Vol. 11, No. 4, pp. 269–318.
- Beale C., (2004), 'What now for ad industry as sex no longer sells?', *Campaign (UK)*, No. 36, Section Opinion Perspective.
- Behnke S., (2009), 'American Psychological Association: Reading the Ethics Code more deeply', *Monitoring Psychology*, Vol. 40, No. 4, pp. 66.
- Belch G. E., Belch M. A. and Villareal A., (1987), 'Effects of Advertising Communications: Review of Research', in *Research in Marketing IX*, Sheth J. ed., New York: JAI Press, pp. 59 – 117.
- Bello D. C., Pitts R. E., and Etzel M. J., (1983), 'The Communication Effects of Controversial Sexual Content in Television Programs and Commercials', *Journal of Advertising*, Vol. 3, No. 12, pp. 32 – 42.

- Bhagat S. P. and Williams D. J., (2002), 'Leveraging Relationships in Marketing: A Motivational Perspective', *Journal of Relationship Marketing*, Vol. 1, pp. 39 – 67.
- Binney W., Kennedy W. and Hall J., (2004), 'Self-determination theory and needs satisfaction in marketing education: Are we meeting the needs of students in large marketing classes?', *Australian and New Zealand Marketing Academy Conference*, Victoria, University of Wellington, 29 November – 1 December, pp. 1 – 9.
- Blond A., (2008), 'Impacts of exposure to images of ideal bodies on male body dissatisfaction: A review', *Body Image*, Vol. 5, No. 3, pp. 244-250.
- Botti S. and McGill L. A., (2011), 'The locus of choice: Personal Causality and Satisfaction with Hedonic and Utilitarian Decisions', *Journal of Consumer Research*, Vol. 37, pp. 1065-1078.
- Bruce H., (2009), 'Burger joints pull out oldest ad trick in book: Sex', *USA Today*, December 21.
- Buunk B. P. and Nauta A., (2000), 'Why Intraindividual Needs Are Not Enough: Human Motivation Is Primarily Social', *Psychological Inquiry*, Vol. 11, No. 4, pp. 269–318.
- Cadwaller S., Burke J. C., Bitner J. M. and Ostrom L. A., (2010), 'Frontline employee motivation to participate in service innovation implementation', *Journal of the Academy of Marketing Science*, Vol. 38, pp. 219 – 239.
- Carver C. S. and Scheier M. F., (2000), 'Autonomy and Self-Regulation', *Psychological Inquiry*, Vol. 11, No. 4, pp. 269–318.
- Cash T. F., Fleming C. E., Alindogan J., Steadman L. and Whitehead A., (2002), 'Beyond Body Image as a Trait: The Development and Validation of the Body Image States Scale', *Eating Disorders*, Vol. 10, pp. 103 – 113.
- Chestnut R., La Chance C. and Lubitz A., (1977), 'The Decorative Female Model: Sexual Stimuli and the Recognition of Advertisements', *Journal of Advertising*, Vol. 6, Fall, pp. 11 – 14.
- Coleman G. P., (2000), 'Aging and the Satisfaction of Psychological Needs', *Psychological Inquiry*, Vol. 11, No. 4, pp. 269–318.
- Courtney A. E. and Whipple T. W., (1983), *Sex Stereotyping in Advertising*, Lexington, MA: D.C.

- Crocker, J., Luhtanen, R. K., Cooper, M. L., and Bouvrette, A. (2003). Contingencies of self-worth in college students: theory and measurement. *Journal of personality and social psychology*, 85(5), 894. Chicago
- Cui T., Ye H. and Teo H. H., (2011), 'Value co-creation with customers through design toolkits: The importance of preference fit and psychological ownership', *Proceedings of 19th European Conference on Information Systems (ECIS 2011)*, Helsinki, Finland, pp. 1 – 7.
- Das E., Galekh M., and Vonkeman C., (2015), 'Is sexy better than funny? Disentangling the persuasive effects of pleasure and arousal across sex and humour appeals', *International Journal of Advertising: The review of Marketing Communications*, pp. 1 – 15.
- Davies, J., Zhu, H., and Brantley, B. (2007). Sex appeals that appeal: negative sexual self-schema as a moderator of the priming effects of sexual ads on accessibility. *Journal of Current Issues and Research in Advertising*, 29(2), 79-89.
- Deci E. L., and Ryan R. M., (1985a), 'Intrinsic motivation and self-determination in human behavior', New York: Plenum.
- Deci E. L., and Ryan R. M., (1985b), 'The general causality orientations scale: Self-determination in personality', *Journal of Research in Personality*, Vol. 19, pp. 109-134.
- Deci E. L., and Ryan R. M., (1995), 'Human agency: The basis for true self-esteem' In M. Kernis (Ed.), *Efficacy, agency, and self-esteem* (pp. 31-50), New York: Plenum.
- Deci E. L., and Ryan R. M., (2000), 'The "What" and "Why" of Goal Pursuits: Human Needs and the Self-Determination of Behavior', *Psychological Inquiry*, Vol. 11, No. 4, pp. 227 – 268.
- Deci E. L., and Ryan R. M., (2002), 'Overview of self-determination theory: An organismic dialectical perspective', *Handbook of self-determination research*, 3-33.
- Deci L. E., Koestner R., and Ryan M. R., (1999), 'A meta-analytic review of experiments examining the effects of extrinsic rewards on intrinsic motivation', *Psychological Bulletin*, Vol. 125, pp. 627 – 668.
- Devine J., Camfield L., and Gough I., (2008), 'Autonomy or Dependence – Or Both? Perspectives from Bangladesh', *Journal of Happiness Studies*, Vol. 9, pp. 105 – 138.

- Dittmar H., and Howard S., (2004), 'Professional hazards? The impact of model's body size on advertising effectiveness and women's body focused anxiety in professions that do and do not emphasize the cultural ideal of thinness', *British Journal of Social Psychology*, Vol. 43, pp. 1 – 33.
- Dittmar H., Halliwell E., and Ive S., (2006), 'Does Barbie make girls want to be thin? The effect of experimental exposure to images of dolls on the body image of 5–8-year-old girls', *Developmental Psychology*, Vol. 42, pp. 283 – 292.
- Doty D. H. and Glick H. W., (1998), 'Common Methods Bias: Does Common Methods Variance Really Bias Results?', *Organisational Research Methods*, Vol. 1, No. 4, pp. 374 – 406.
- Dunning, D. (2007). Self-image motives and consumer behavior: How sacrosanct self-beliefs sway preferences in the marketplace. *Journal of Consumer Psychology*, 17(4), 237-249.
- Edell J. A., and Keller K. L., (1989), 'The information processing of coordinated media campaigns', *Journal of Marketing Research*, Vol. 26, No. 2, p. 149.
- Falk A., and Heckman J. J., (2009), 'Lab experiments are a major source of knowledge in the social sciences', *Science*, Vol. 326, No. 5952, pp. 535-538.
- Fam, K. S., Waller, D. S., Ong, F. S., and Yang, Z. (2008). Controversial product advertising in China: perceptions of three generational cohorts. *Journal of Consumer Behaviour*, 7(6), 461-469.
- Fein S. and Spencer S. J., (1997), 'Prejudice as self-image maintenance: Affirming the self through derogating others', *Journal of personality and social psychology*, Vol. 73, No. 1, pp. 31 – 44.
- Fisher T. D., (2011), 'Attitudes Towards Sexuality Scale', *Handbook of sexuality-related measures*, pp. 66-67.
- Fisher T. D., and Hall R. G., (1988), 'A scale for the comparison of the sexual attitudes of adolescents and their parents', *Journal of Sex Research*, Vol. 24, No. 1, pp. 90-100.
- Fiske S., (1981), 'Social Cognition and Affect', in *Cognition, Social Behavior, and the Environment*, ed. John Harvey, Hillsdale, NJ: Lawrence Erlbaum, pp. 227-264.
- Ford J. B., La Tour M. S. and Clarke I., (2004), 'A prescriptive essay concerning sex role portrayals in international advertising contexts', *American Business Review*, Vol. 22, No. 1, pp. 42 – 55.

- Fridhandler B. M., (1986), Conceptual Note on State, Trait, and the State – Trait Distinction, *Journal of Personality and Social Psychology*, Vol. 50, pp. 169-174.
- Gardner M. P., (1985), 'Mood states and consumer behavior: A critical review', *Journal of Consumer Research*, pp. 281-300.
- Gould S. J., (1994), 'Sexuality and ethics in advertising: A research agenda and policy guideline perspective', *Journal of Advertising*, Vol. 23, No. 3, pp. 73 – 80.
- Gould, S. J. (1992). A model of the scripting of consumer lovemaps: The consumer sexual behavior sequence. *Advances in consumer research*, 19(1), 304-310.
- Gray A. J., (1990), 'Brain Systems That Mediate Both Emotion and Cognition', *Cognition and Emotion*, Vol. 4, No. 3, pp. 269 – 288.
- Griskevicius, V., Tybur, J. M., Sundie, J. M., Cialdini, R. B., Miller, G. F., and Kenrick, D. T. (2007). Blatant benevolence and conspicuous consumption: when romantic motives elicit strategic costly signals. *Journal of personality and social psychology*, 93(1), 85.
- Grossbard J. R., Lee C. M., Neighbors C., and Larimer M. E., (2009), 'Body image concerns and contingent self-esteem in male and female college students', *Sex Roles*, Vol. 60, No. 3-4, pp. 198-207.
- Guay F., Vallerand R. J and Blanchard C., (2000) 'On the Assessment of Situational Intrinsic and Extrinsic Motivation: The Situational Motivation Scale (SIMS)', *Motivation and Emotion*, Vol. 24, No. 3, pp. 175 – 213.
- Hackley C., (2010), 'Theorizing Advertsing: Managerial, Scientific and Cultural Approaches', in MacLaran P., Saren M., Stern B. and Tadajewski M. (Eds.), *The Sage Handbook of Marketing Theory*, Sage Publications, London, pp. 89 – 107.
- Häfner, M. (2009). Knowing you, knowing me: Familiarity moderates comparison outcomes to idealized media images. *Social Cognition*, 27(4), 496-508.
- Häfner, M., Jagsch, O., Kund, A., Mager, S., Pereira, P. T., and Zimmermann, A. (2008). "The Female May Feel Male:" Defending Against the Adverse Consequences of Exposure to Idealized Media Images. *Journal of Social and Clinical Psychology*, 27(8), 778-808.
- Hair Jr. J. F., Black C. W., Babin B. and Anderson E. R., (2010), *Multivariate Data Analysis*, 7th edition, Prentice Hall International, 577 – 644.

- Hall J., Maden-Hallett H. and Binney W., (2004), 'Autarchic Study Techniques and Self Determination Theory in Marketing Education', Australian Association for Research in Education, Melbourne, Victoria University, 30 November, pp. 1 – 9.
- Halliwell E., and Dittmar H., (2004), 'Does size matter? The impact of model's body size on women's body-focused anxiety and advertising effectiveness', *Journal of Social and Clinical Psychology*, Vol. 23, No 1, pp. 104 – 122.
- Halliwell E., Dittmar H. and Osborn A., (2007), 'The effects of exposure to muscular male models among men: exploring the moderating role of gym use and exercise motivation', *Body image*, Vol.4, No.3, pp. 278 – 287.
- Hamman S., Herman A. R., Nolan L. C. and Wallen K., (2004), 'Men and women differ in amygdale response to visual sexual stimuli', *Nature Neuroscience*, Vol. 7, No. 4, pp. 411 – 416.
- Hargreaves D., and Tiggemann M., (2003), 'The effect of "thin ideal" television commercials on body dissatisfaction and schema activation during early adolescence', *Journal of youth and adolescence*, Vol. 32, No. 5, pp. 367-373.
- Hawkins, N., Richards, P. S., Granley, H. M., and Stein, D. M. (2004). The impact of exposure to the thin-ideal media image on women. *Eating disorders*,12(1), 35-50.
- Heatherton T. F. and Polivy J., (1991), 'Development and Validation of a Scale for Measuring State Self-Esteem', *Journal of Personality and Social Psychology*, Vol. 60, No. 6, pp. 895 - 910.
- Hedges V. L., (1987), 'How Hard is Hard Science, How Soft is Soft Science? The Empirical Cumulativeness of Research', *American Psychologist*, Vol. 42, No. 2, pp. 443 – 455.
- Heinberg L. J. and Thompson J. K., (1995), 'Body image and televised images of thinness and attractiveness: A controlled laboratory investigation', *Journal of Social and Clinical Psychology*, Vol. 14, pp. 325–338.
- Hennessey B. A., (2000), 'Self-Determination Theory and the Social Psychology of Creativity', *Psychological Inquiry*, Vol. 11, No. 4, pp. 269–318.
- Herzberg F., (1966), *Work and the nature of man*. Cleveland, OH: World.
- Hietanen J. K., and Nummenmaa L., (2011), 'The naked truth: the face and body sensitive N170 response is enhanced for nude bodies', *PLoS One*, Vol. 6, No. 11, e24408, pp. 1-12.

- Hill, S. E., and Durante, K. M. (2011). Courtship, competition, and the pursuit of attractiveness: Mating goals facilitate health-related risk taking and strategic risk suppression in women. *Personality and Social Psychology Bulletin*, 0146167210395603.
- Hodgins, H. S., Koestner, R., and Duncan, N. (1996). On the compatibility of autonomy and relatedness. *Personality and Social Psychology Bulletin*, 22, 227-237.
- Holbrook M. B., (1987), 'Mirror, Mirror on the Wall, What's Unfair in the Reflections on Advertising?', *Journal of Marketing*, Vol. 51 (July), pp. 95 – 103.
- Hull C. L., (1943), *Principles of behavior: An introduction to behaviour theory*, New York: Appleton-Century-Crofts.
- James W. L and Sonner B. S., (2001), 'Just say no to traditional student samples', *Journal of Advertising Research*, Vol. 41, No. 5, pp. 63–71.
- Janis I. L., and Field P. B., (1959), 'Sex differences and factors related to persuasibility', In C. I. Hovland and I. L. Janis (Eds.), *Personality and Persuasibility* (pp. 55-68). New Haven, CT: Yale University Press.
- Jay, M. (1988). 'Scopic regimes of modernity' in Foster, H. (Ed.). *Vision and visuality* (Vol. 2). Seattle: Bay Press.
- Jobber D., Saunders J., and Mitchell V. W., (2004), 'Prepaid monetary incentive effects on mail survey response', *Journal of Business Research*, Vol. 57, No. 1, pp. 21–25.
- Jones, A. M., and Buckingham, J. T. (2005). Self-esteem as a moderator of the effect of social comparison on women's body image. *Journal of social and clinical psychology*, 24(8), 1164-1187.
- Jung, J., and Forbes, G. B. (2007). Body dissatisfaction and disordered eating among college women in China, South Korea, and the United States: Contrasting predictions from sociocultural and feminist theories. *Psychology of Women Quarterly*, 31(4), 381-393.
- Kasser T. and Ryan R. M., (1993), 'A dark side of the American dream: Correlates of financial success as a central life aspiration', *Journal of Personality and Social Psychology*, Vol. 65, pp. 410 – 422.
- Kasser T. and Ryan R. M., (1996), 'Further examining the American dream: Differential correlates of intrinsic and extrinsic goals', *Personality and Social Psychology Bulletin*, Vol. 22, pp. 80 – 87.

- Kasser T., (2004), 'Sketches for a self-determination theory of values', In Deci E. L. and Ryan R. M. (Eds.), *Handbook of self-determination research*, Rochester, NY: University of Rochester Press.
- Kernis M. H., (2000), 'Substitute Needs and the Distinction Between Fragile and Secure High Self-Esteem', *Psychological Inquiry*, Vol. 11, No. 4, pp. 269–318.
- Kernis M. H., (2003), 'Toward a conceptualization of optimal self-esteem', *Psychological inquiry*, Vol. 14, No. 1, pp. 1-26.
- Kernis M. H., and Paradise A. W., (2002), 'Distinguishing Between Secure and Fragile Forms of High Self-Esteem', *Handbook of self-determination research*, p. 339.
- Kernis, M. H. (2005). Measuring Self - Esteem in Context: The Importance of Stability of Self - Esteem in Psychological Functioning. *Journal of personality*,73(6), 1569-1605.
- Kilbourne J., (2005), 'What else does sex sell?', *International Journal of Advertising*, Vol. 24, No 1, Comments section, pp. 119 – 122.
- Kimmel A. J., (2001), 'Ethical trends in marketing and psychological research', *Ethics Behavior*, Vol. 11, No. 2, pp. 131–149.
- King F. M. and Bruner C. G., (2000), 'Social Desirability Bias: A Neglected Aspect of Validity Testing', *Psychology and Marketing*, Vol. 17, No. 2, pp. 79 – 103.
- Knee, C. R., Canevello, A., Bush, A. L., and Cook, A. (2008). Relationship-contingent self-esteem and the ups and downs of romantic relationships. *Journal of personality and social psychology*, 95(3), 608.
- Knobloch-Westerwick, S. (2014). Thinspiration: Self-improvement versus self-evaluation social comparisons with thin-ideal media portrayals. *Health communication*, (ahead-of-print), 1-13.
- Kopp L. L., and Zimmer-Gembeck M. J., (2011), 'Women's global self-determination, eating regulation, and body dissatisfaction: Exploring the role of autonomy support', *Eating Behaviors*, Vol. 12, No. 3, pp. 222-224.
- Koschate-Fisher N., and Schandelmeier S., (2014), 'A guideline for designing experimental studies in marketing research and a critical discussion of selected problem areas', *Journal of Business Economics*, Vol. 84, pp. 793-826.

- La Tour M. S. and Henthorne T. L., (1993), 'Female nudity: Attitudes toward the ad and the brand, and implications for advertising strategy', *The Journal of Consumer Marketing*, Vol. 10, No. 3, pp. 25 – 32.
- Laming D., (1997), 'A critique of a measurement-theoretic critique: Commentary on Michell, Quantitative science and the definition of measurement in psychology', *British Journal of Psychology*, Vol. 88, pp. 389 – 391.
- Lass P. and Hart S., (2004), 'National Cultures, Values and Lifestyles Influencing Consumers' Perception towards Sexual Imagery in Alcohol Advertising: An Exploratory Study in the UK, Germany and Italy', *Journal of Marketing Management*, Vol. 20, pp. 607 – 623.
- LaTour M. S., (1990), 'Female nudity in print advertising: An analysis of gender differences in arousal and Ad response', *Psychology and Marketing*, Vol. 7, No. 1, pp. 65-81.
- Lee, S. (1999). Fat, fatigue and the feminine: The changing cultural experience of women in Hong Kong. *Culture, Medicine and Psychiatry*, 23, 51–73.
- Lee, S. (2004). Engaging culture: An overdue task for eating disorders research. *Culture, Medicine, and Psychiatry*, 28, 617–621.
- Lewis M., Neighbors C. and Malheim J., (2006), 'Indulgence or restraint? Gender differences in the relationship between controlled orientation and the erotophilia-risky sex link', *Personality and Individual Differences*, Vol. 40, No. 5, pp. 985 – 995.
- Lin C. A., (1998), 'Uses of sexual appeals in prime-time television commercials', *Sex Roles*, Vol. 38, No. 5/6, pp. 461 – 475.
- Lin C-P., Tsai Y. H. and Chiu C-K., (2009), 'Modelling Customer Loyalty from an Integrative Perspective of Self-Determination Theory and Expectation – Confirmation Theory', *Journal of Business Psychology*, Vol. 24, pp. 315 – 326.
- Lovie A. D., (1997), 'Commentary on Michell, Quantitative science and the definition of measurement in psychology', *British Journal of Psychology*, Vol. 88, pp. 393 – 394.
- Lykins A., Meana M. and Strauss G., (2008), 'Sex Differences in Visual Attention to Erotic and Non-Erotic Stimuli', *Archives of Sexual Behavior*, Vol. 37, No.2, pp. 219 – 228.
- Lynch J. G., Jr., (1982), 'On the external validity of experiments in consumer research', *Journal of Consumer Research*, Vol. 9, No. 3, pp. 225–239.

- Malhotra Y., (2004), 'Desperately Seeking Self-Determination: Key to the New Enterprise Logic of Customer Relationships', *Proceedings of the Americas Conference on Information Systems*, New York, August, pp. 1 – 8.
- Markus H. R. and Kitayama S., (1991), 'Culture and the Self: Implications for Cognition, Emotion and Motivation', *Psychological Review*, Vol. 98, No. 2, pp. 224 – 253.
- Markus H. R. and Schwartz B., (2010), 'Does Choice Mean Freedom and Well Being', *Journal of Consumer Research*, Vol. 37, No. 2, pp. 344 – 355.
- Mask L and Blanchard C. M., (2011a), 'The effects of "thin ideal" media on women's body image concerns and eating-related intentions: The beneficial role of an autonomous regulation of eating behaviors', *Body image*, Vol. 8, No. 4, pp. 357 – 365.
- Mask L. and Blanchard C. M., (2011b), 'The protective role of general self-determination against 'thin ideal' media exposure on women's body image and eating-related concerns', *Journal of health psychology*, Vol. 16, No. 3, pp. 489 – 499.
- Maslow A. H., (1943), A theory of human motivation, *Psychological Review*, Vol. 50, pp. 370–396.
- McGinnis L. P., Gentry J. W. and Gao T., (2008), 'The impact of Flow and Communitas on Enduring Involvement in Extended Service Encounters', *Journal of Service Research*, Vol. 11, pp. 74 – 90.
- Michell J., (1997), 'Quantitative science and the definition of measurement in psychology', *British Journal of Psychology*, Vol. 88, No. 3, pp. 355-383.
- Mills, J. S., Polivy, J., Herman, C. P., and Tiggemann, M. (2002). Effects of exposure to thin media images: Evidence of self-enhancement among restrained eaters. *Personality and Social Psychology Bulletin*, 28(12), 1687-1699.
- Mittal B., and Lassar W. M., (2000), 'Sexual liberalism as a determinant of consumer response to sex in advertising', *Journal of Business and Psychology*, Vol. 15, No. 1, pp. 111-127.
- Moller, A. C., Ryan, R. M. and Deci, E. L., (2006), 'Self-determination theory and public policy: Improving the quality of consumer decisions without using coercion', *Journal of Public Policy and Marketing*, Vol. 25, pp. 104 – 116.
- Neighbors C., Larimer M. E., Markman G. I., and Knee C. R., (2004), 'Feeling controlled and drinking motives among college students: Contingent self-esteem as a mediator', *Self and Identity*, Vol. 3, No. 3, pp. 207-224.

- Paradise A. W., (2001), 'Fragile high self-esteem and alcohol use', Unpublished doctoral dissertation, University of Georgia.
- Paradise, A. W., and Kernis, M. H. (2002). Self-esteem and psychological well-being: Implications of fragile self-esteem. *Journal of Social and Clinical Psychology*, 21(4), 345-361.
- Patrick H., Neighbours C., and Knee C. R., (2004), 'Appearance-related social comparisons: The role of contingent self-esteem and self-perceptions of attractiveness', *Personality and Social Psychology Bulletin*, Vol. 30, pp. 501–514.
- Pelletier L. G. and Dion S. C., (2007), 'An examination of general and specific motivational mechanisms for the relations between body dissatisfaction and eating behaviors', *Journal of Social and Clinical Psychology*, Vol. 3, pp. 303 – 333.
- Pelletier L. G., Dion S., and Lévesque C., (2004), 'Can self-determination help protect women against sociocultural influences about body image and reduce their risk of experiencing bulimic symptoms', *Journal of Social and Clinical Psychology*, Vol. 23, No. 1, pp. 61-88.
- Pelletier, L. G., Dion, S. C., Sloviniec-D'Angelo, M., and Reid, R. (2004). Why do you regulate what you eat? Relationships between forms of regulation, eating behaviors, sustained dietary behavior change, and psychological adjustment. *Motivation and Emotion*, 28(3), 245-277.
- Perdue B. C., and Summers J. O., (1986), 'Checking the success of manipulations in marketing experiments', *Journal of Marketing Research*, Vol. 23, No. 4, pp. 317–326.
- Peterson R. A. and Kerin R. A., (1977), 'The Female Role in Advertisements: Some Experimental Evidence', *Journal of Marketing*, Vol. 41, October, pp. 51 – 63.
- Peterson R. A., and Sauber M., (1983), 'A mood scale for survey research', *Handbook of Marketing Scales*, Chicago, pp. 187-88.
- Petty R. Cacioppo, J., and Schumann D., (1983), 'Central and Peripheral Routes to Advertising Effectiveness: The Moderating Role of Involvement', *Journal of Consumer Research*, Vol. 10, No. 2, pp. 135 - 146.
- Pollay R. W., (1986), 'The Distorted Mirror: Reflections on the Unintended Consequences of Advertising', *Journal of Marketing*, Vol. 50 (April), pp. 18 – 36.

- Pyszczynski T., Greenberg J., and Solomon S., (2000), 'Toward a Dialectical Analysis of Growth and Defensive Motives', *Psychological Inquiry*, Vol. 11, No. 4, pp. 269–318.
- Reichert T. and Ramirez A., (2000), 'Defining sexually oriented appeals in advertising: A grounded theory investigation', in Hoch S. J. and Meyer R. J. (Eds.), *Advances in Consumer Research*, Vol. 27, Provo, UT: Association for Consumer Research, pp. 267 – 273.
- Reichert T., (2002), 'Sex in advertising research: A review of content, effects, and functions of sexual information in consumer advertising', In J. Heiman (Ed.), *Annual review of sex research*, Vol. 13. Mount Vernon, IA: The Society for the Scientific Study of Sexuality, pp. 241 – 273.
- Reichert T., (2003), 'The prevalence of Sexual Imagery in Ads Targeted to Young Adults', *The Journal of Consumer Affairs*, Vol. 37, No. 2 (Winter), pp. 403 – 412. \
- Reichert T., and Carpenter C., (2004), 'An Update on Sex in Magazine Advertising: 1983 to 2003', *Journalism and Mass Communication Quarterly*, Vol. 81, No. 4, pp. 823 – 837.
- Reichert T., and Lambiase J., (2003), 'How to get "Kissably Close": Examining How Advertisers Appeal to Consumers' Sexual Needs and Desires', *Sexuality and Culture*, Vol. 7, No. 3, pp. 120 – 136.
- Reichert T., Lambiase J., Morgan S., Carstarphen M. and Zavoina S., (1999), 'Cheesecake and beefcake: No matter how you slice it, sexual explicitness in advertising continues to increase', *Journalism and Mass Communication Quarterly*, Vol. 76, No. 1, pp. 7 – 14.
- Reichert, T., LaTour, M. S., and Ford, J. B. (2011). The Naked Truth Revealing the Affinity for Graphic Sexual Appeals in Advertising. *Journal of Advertising Research*, 51(2), 436-448
- Reid L. N. and Soley L. C., (1981), 'Another Look at the Decorative Female Model: The Recognition of Visual and Verbal Ad Components', *Current Issues and Research in Advertising*, pp. 122 – 133.
- Reutskaja E. and Hogarth M. R., (2009), 'Satisfaction in Choice as a Function of the number of Alternatives: When "Goods Satiates" ', *Psychology and Marketing*, Vol. 26, pp. 197 – 203.

- Ricciardelli, L. A., McCabe, M. P., Williams, R. J., and Thompson, J. K. (2007). The role of ethnicity and culture in body image and disordered eating among males. *Clinical psychology review*, 27(5), 582-606.
- Richmond D. and Hartman T. P., (1982), 'Sex Appeal in Advertising', *Journal of Advertising Research*, Vol. 11, No. 5, pp. 53 – 61.
- Rokeach, M. (1973). *The nature of human values* (Vol. 438). New York: Free press.
- Roney R. J., (2003), 'Effects of Visual Exposure to the Opposite Sex: Cognitive Aspects of Mate Attraction in Human Males', *Personality and Social Psychology Bulletin*, Vol. 29, No. 3, pp. 393 – 404.
- Roney, J. R., Mahler, S. V., and Maestriperri, D. (2003). Behavioral and hormonal responses of men to brief interactions with women. *Evolution and human Behavior*, 24(6), 365-375. Chicago
- Rook W. D., and Gardner P. M., (1993), 'In The Mood: Impulse Buying's Affective Antecedents', in *Research in Consumer Behavior*, Vol. 6, ed. Janeen Arnold-Costa and Russell Belk, Greenwich, CT: JAI, 1–28.
- Ryan M. R., Kuhl J. and Deci L. E., (1997), 'Nature and autonomy: An organizational view of social and neurobiological aspects of self-regulation in behavior and development', *Development and Psychopathology*, Vol. 9, pp. 701 – 728.
- Ryan R. M., & Deci E. L., (2000), 'Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being', *American psychologist*, Vol. 55, No. 1, pp. 68 – 88 .
- Ryan R. M., and Deci E. L., (2000b), 'The Darker and Brighter Sides of Human Existence: Basic Psychological Needs as a Unifying Concept', *Psychological Inquiry*, Vol. 11, No. 4, pp. 319-338.
- Rye B. J., Meaney G. J., and Fisher W. A., (2011), 'The sexual opinion survey', *Handbook of sexuality-related measures*, pp. 231-236.
- Sanchez D., Crocker J. and Boike K., (2005), 'Doing Gender in the Bedroom: Investing in Gender Norms and the Sexual Experience', *Personality and Social Psychology Bulletin*, Vol. 31, No. 10, pp. 1445 – 1455.
- Sansone C. and Smith J. L., (2000), 'The "How" of Goal Pursuit: Interest and Self-Regulation', *Psychological Inquiry*, Vol. 11, No. 4, pp. 269–318.

- Sawyer A. G., and Ball A. D., (1981), 'Statistical power and effect size in marketing research', *Journal of Marketing Research*, Vol. 18, No. 3, pp. 275–290.
- Schwartz, S. H. (1992). Universals in the content and structure of values: Theory and empirical tests in 20 countries. In M. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 25, pp. 1–65). New York, NY: Academic.
- Seckler V., (2005), 'Sexuality's New Subtle Appeal', *WWD: Women's Wear Daily*, No. 189(94).
- Sengupta J., and Dahl D. W., (2008), 'Gender-related reactions to gratuitous sex appeals in advertising', *Journal of consumer psychology*, Vol. 18, No. 1, pp. 62-78.
- Severn J., Belch E. G. and Belch A. M., (1990), 'The Effects of Sexual and Non-Sexual Advertising Appeals and Information Level on Cognitive Processing and Communication Effectiveness', *Journal of Advertising*, Vol. 19, No. 1, pp. 14 – 22.
- Sheldon, K. M. (2007). Gender differences in preferences for singles ads that proclaim extrinsic versus intrinsic values. *Sex Roles*, 57(1-2), 119-129. Chicago
- Shiv B., Edell J. A., and Payne J. W., (1997), 'Factors affecting the impact of negatively and positively framed ad messages', *Journal of Consumer Research*, Vol. 24, No. 3, pp. 285-294.
- Singh S., (2004), 'Curtain falls on', *Marketing Week*, April 29, pp. 22 – 25.
- Sobol, K., and Darke, P. R. (2014). "I'd like to be that attractive, but at least I'm smart": How exposure to ideal advertising models motivates improved decision-making. *Journal of Consumer Psychology*.
- Steadman M., (1969), 'How sexy illustrations affect brand recall', *Journal of Advertising Research*, Vol. 9, No. 1, pp. 15 – 19.
- Sundie, J. M., Kenrick, D. T., Griskevicius, V., Tybur, J. M., Vohs, K. D., and Beal, D. J. (2011). Peacocks, Porsches, and Thorstein Veblen: conspicuous consumption as a sexual signaling system. *Journal of personality and social psychology*, 100(4), 664.
- Thorbjornsen H. and Suppellen M., (2009), 'Determinants of core value behavior in service brands', *Journal of Services Marketing*, Vol. 25, pp. 68 – 76.
- Thorgesen J., (2005), 'How May Consumer Policy Empower Consumer for Sustainable Lifestyles?', *Journal of Consumer Policy*, Vol. 28, pp. 143 – 178.

- Tiggemann, M., and McGill, B. (2004). The role of social comparison in the effect of magazine advertisements on women's mood and body dissatisfaction. *Journal of Social and Clinical Psychology*, 23(1), 23-44.
- Tiggemann, M., Polivy, J., and Hargreaves, D. (2009). The processing of thin ideals in fashion magazines: A source of social comparison or fantasy?. *Journal of Social and Clinical Psychology*, 28(1), 73-93.
- Tinkham S. F. and Reid L. N., (1988), 'Sex Appeal in Advertising Revisited: Validation of a Typology', in *Proceedings of the 1988 Conference of American Academy of Advertising*, Leckenby J. D. ed., Austin, TX.
- Tromovitch P. M., (2000), 'The multidimensional measure of comfort with sexuality (MMCS1): The development of a multidimensional objective measure of comfort with sexuality for use in the sexuality education and research', Available from ProQuest Dissertations & Theses A&I.
- Turner R., Irwin C., Tschann J. and Millstein S., (1993), 'Autonomy, relatedness, and the initiation of health risk behaviors in early adolescence', *Health Psychology*, Vol. 12, No. 3, pp. 200 – 208.
- Vallerand R. J., (2000), 'Deci and Ryan's Self-Determination Theory: A View From the Hierarchical Model of Intrinsic and Extrinsic Motivation', *Psychological Inquiry*, Vol. 11, No. 4, pp. 269–318.
- Van de Bergh B. and Dewitte S., (2006), 'Digit ratio (2D:4D) moderates the impact of sexual cues on men's decisions in ultimatum games', *Proceedings of the Royal Society B*, Vol. 273, pp. 2091 – 2095.
- Van de Bergh B., Dewitte S. and Warlop L., (2008), 'Bikinis Instigate Generalized Impatience in Intertemporal Choice', *Journal of Consumer Research*, Vol. 35, June, pp. 85 – 97.
- Van Lange P. A. M., (2000), 'Self-Determination in Interpersonal Situations' *Psychological Inquiry*, Vol. 11, No. 4, pp. 269–318.
- Vansteenkiste, M., Simons, J., Soenens, B., and Lens, W. (2004). How to become a persevering exerciser? Providing a clear, future intrinsic goal in an autonomy-supportive way. *Journal of Sport and exercise Psychology*, 26(2), 232-249.
- Vansteenkiste, M., Timmermans, T., Lens, W., Soenens, B., and Van den Broeck, A. (2008). Does extrinsic goal framing enhance extrinsic goal-oriented individuals'

learning and performance? An experimental test of the match perspective versus self-determination theory. *Journal of Educational Psychology*, 100(2), 387.

Venkatesan M., (1967), 'Laboratory Experiments in Marketing: The Experimenter Effect', *Journal of Marketing Research*, Vol. IV, may, pp. 142 – 146.

Walton R. J. and Berkowitz N. E., (1979), 'The effects of choice complexity and decision freedom on consumer choice behaviour', *Advances in Consumer Research*, Vol. 6, pp. 206 – 208.

Wan, F., Ansons, T. L., Chattopadhyay, A., and Leboe, J. P. (2013). Defensive reactions to slim female images in advertising: The moderating role of mode of exposure. *Organizational Behavior and Human Decision Processes*, 120(1), 37-46.

Wehmeyer L. M., (2004), *Beyond Self-Determination: Causal Agency Theory*, *Journal of Development and Physical Disabilities*, Vol. 16, No. 4, pp. 337 – 359.

Weinstein N., Przybylski K. A. and Ryan M. R., (2009), 'Can Nature Make Us more Caring? Effects of Immersion in Nature on Intrinsic Aspirations and Generosity', *Personality and Social Psychology Bulletin*, Vol. 35, No. 10, pp. 1315 – 1329.

Williams R., (2000), 'Advertising: the magic system.', *Advertising & Society Review*, Vol. 1, No. 1, pp. 170-195.

Wilson M. and Daly M., (2004), 'Do pretty women inspire men to discount the future?', *Proceedings of the Royal Society Biology Letters*, Vol. 271, pp. S177 – S179.

Wise, G. L., King A. L. and Merenski, J. P., (1974), 'Reactions to Sexy Ads Vary With Age', *Journal of Advertising Research*, Vol. 14, August, pp. 11 – 16.

Wyllie J., Carlson J., and Rosenberger P. J., (2014), 'Examining the influence of different levels of sexual-stimuli intensity by gender on advertising effectiveness', *Journal of Marketing Management*, Vol. 30, No. 7/8, pp. 697-718.

Xu, X., Mellor, D., Kiehne, M., Ricciardelli, L. A., McCabe, M. P., and Xu, Y. (2010). Body dissatisfaction, engagement in body change behaviors and sociocultural influences on body image among Chinese adolescents. *Body image*, 7(2), 156-164.

Zaichkowsky J., (1985), 'Measuring the Involvement Construct', *Journal of Consumer Research*, Vol. 12, No. 3, pp. 341 – 352.

Zuckerman M., (1983), 'The distinction between trait and state scales is not arbitrary: Comment on Allen and Potkay's "On the arbitrary distinction between traits and states."', *Journal of Personality and Social Psychology*, Vol. 44, pp. 1083-1086.

BIBLIOGRAPHY

(Sources consulted but not referenced)

Argo J. J., White K., and Dahl D. W., (2006), 'Social comparison theory and deception in the interpersonal exchange of consumption information'. *Journal of Consumer Research*, 33(1), 99-108.

Ariely D., (2009), *Predictably Irrational*, Harper Collins Publishers, London.

Bearden W., Lichtenstein D. and Teel J., (1984), 'Comparison Price, Coupon, and Brand Effects on Consumer Reactions to Retail Newspaper Advertisements', *Journal of Retailing*, Vol. 60, No. 2, pp. 11 – 35.

Crotty M., (1998), *The foundations of Social Research*, Sage Publications, London, pp. 1 – 17.

deCharms R., (1968), *Personal causation*, New York: Academic.

Deci L. E. and Ryan M. R., (1985), 'The general causality orientations scale: Self-determination in personality', *Journal of Research in Personality*, Vol. 19, pp. 109 – 134. \

Dholakia M. U., (2006), 'How Customer Self-Determination Influences Relational Marketing Outcomes: Evidence from Longitudinal Field Studies', *Journal of Marketing Research*, Vol. XLIII, February, pp. 109 – 120.

Dodds W., Monroe K., and Grewal D. (1991), 'Effects of Price, Brand, and Store Information on Buyers' Product Evaluations', *Journal of Marketing Research (JMR)*, Vol. 28, No. 3, pp. 307 – 319.

Dreze X. and Hussherr F. X., (2003), 'Internet advertising: Is anybody watching?', *Journal of Interactive Marketing*, Vol. 17, No. 4, pp. 8 – 23.

Elby A., (2009), 'Defining Personal Epistemology: A Response to Hofer and Pintrich (1997) and Sandoval (2005)', *The Journal of the Learning Sciences*, Vol. 18, p. 138 – 149.

Firat A. F. and Tadajewski M., (2010), 'Critical Marketing – Marketing in Critical Condition', in MacLaran P., Saren M., Stern B. and Tadajewski M. (Eds.), *The Sage Handbook of Marketing Theory*, Sage Publications, London, pp. 127 – 150.

Gagne, M. (2003), 'The role of autonomy support and autonomy orientation in pro-social behavior engagement', *Motivation and Emotion*, Vol. 27, pp. 199-223.

- Garner, D. M., Olmstead, M. P., and Polivy, J. (1983), 'Development and validation of a multidimensional eating disorder inventory for anorexia nervosa and bulimia, *International Journal of Eating Disorders*, Vol. 2, pp. 15–34.
- Gotlieb J. and Sarel D., (1991), 'Effects of Price Advertisements on Perceived Quality and Purchase Intentions', *Journal of Business Research*, Vol. 22, No. 3, pp. 195 – 210.
- Grewal D., Krishnan R., Baker J. and Borin N., (1998), 'The Effects of Store Name, Brand Name and Price Discounts on Consumers' Evaluations and Purchase Intentions', *Journal of Retailing*, Vol. 74, No. 3, pp. 331 – 352.
- Hall J., Binney W. and Kennedy W., (2005), 'Effective Teaching in Universities: Are students' basic needs being satisfied in large classes?', *International Journal of Learning*, Vol. 12, pp. 1 – 9.
- Heider F., (1958), *The psychology of interpersonal relations*, New York: Wiley.
- Holbrook M. and Batra R., (1987), 'Assessing the Role of Emotions as Mediators of Consumer Responses to Advertising', *Journal of Consumer Research*, Vol. 14, No. 3, pp. 404 - 420.
- Ilardi, B. C., Leone, D., Kasser, R., and Ryan, R. M. (1993), 'Employee and supervisor ratings of motivation: Main effects and discrepancies associated with job satisfaction and adjustment in a factory setting', *Journal of Applied Social Psychology*, Vol. 23, pp. 1789-1805.
- Irving, L. M. (1990). Mirror images: Effects of the standard of beauty on the self-and body-esteem of women exhibiting varying levels of bulimic symptoms. *Journal of Social and Clinical Psychology*, 9(2), 230-242.
- Juster F., (1966), 'Consumer buying intentions and purchase probability: an experiment in survey design', *Journal of the American Statistical Association*, Vol. 61, No. 315, pp. 658 – 697.
- Kalof L., (1990), 'Images of Gender and Sexuality: A Study of the Adolescent's Interpretation of Media Messages', paper presented at the 10th Annual Conference on Youth, Center for Population Options, Arlington, Virginia, September.
- Kalof L., (1993), 'Dilemmas of Femininity: Gender and the Social Construction of Sexual Imagery', *The Sociological Quarterly*, Vol. 34, No. 4, pp. 639 – 651.

- Kashdan, T. B., Julian, T., Merritt, K., and Uswatte, G. (2006), 'Social anxiety and posttraumatic stress in combat veterans: Relations to well-being and character strengths', *Behavior Research and Therapy*, Vol. 44, pp. 561-583.
- Kim S., Haley E. and Koo G., (2009), 'Comparison of the paths from consumer involvement types to ad responses between corporate advertising and product advertising', *Journal of Advertising*, Vol. 38, No. 3, pp. 67 - 80.
- LaBerge D., (1995), *Attentional Processing: The Brain's Art of Mindfulness*, Cambridge, MA: Harvard University Press.
- MacInnis D., Moorman C., and Jaworski B. J., (1991), 'Enhancing and Measuring Consumers' Motivation, Opportunity and Ability to Process Brand Information from Ads', *Journal of Marketing*, Vol. 55 (October), pp. 32 – 53.
- McQuerrrie F. E., (2004), 'Integration of construct and external validity by means of proximal similarity: Implications for laboratory experiments in marketing', *Journal of Business Research*, Vol. 57, pp. 142 – 153.
- Morrison B. J. and Sherman R. C., (1972), 'Who responds to Sex in Advertising?', *Journal of Advertising Research*, Vol. 12, No. 2, April, pp. 15 – 19.
- Nixon, H. (1924) 'Attention and Interest in Advertising.' *Archives of Psychology*, 72 (1), 5-67.
- Pelletier, L. G., Huta, V., Sharp, E., Lévesque, C. Vallerand, R. J., Guay, F., and Blanchard, C. (2011). The General Motivation Scale (GMS): Its Validity and Usefulness in Predicting Success and Failure at Self-Regulation, Manuscript in preparation, University of Ottawa.
- Pincus, A. L., Ansell, E. B., Pimentel, C. A., Cain, N. M., Wright, A. G. C., and Levy, K. N. (2009), 'Initial construction and validation of the Pathological Narcissism Inventory', *Psychological Assessments*, Vol. 21, No. 3, pp. 365–379
- Potter J., and Wetherall M., (1987), *Discourse and Social Psychology: Beyond Attitudes and Behaviour*, London: Sage Publications.
- Reichert T., and Alvaro E., (2001), 'The Effects of Sexual Information on Ad and Brand Processing and Recall', *Southwestern Mass Communication Journal*, Vol. 17, No. 1, pp. 9 – 17.

- Reichert T., Heckler S. E., and Jackson S., (2001), 'The effects of sexual social marketing appeals on cognitive processing and persuasion', *Journal of Advertising*, Vol. 30, pp. 13 – 27.
- Reid L. N. and Soley L. C., (1983), 'Decorative models and the readership of magazine ads', *Journal of Advertising Research*, Vol. 23, No.2, pp. 27 – 32.
- Rescher N., (1995), 'Pragmatism', in *The Oxford Companion to Philosophy*, ed. T Honderich, Oxford University Press, Oxford, pp. 710 – 713.
- Richard E., Abigail J., Benfield A., and Barlow M., (1995), 'Overt sexuality in advertising: A discourse analysis of gender responses', *Journal of Consumer Policy*, Vol. 18, No. 2/3, pp. 187 – 217.
- Rosler A., Ulrich C., Billino J., Sterzer P., Weidauer S., Bernhardt T., Steinmetz H., Frolich L., and Kleinschmidt A., (2005), 'Effects of arousing emotional scenes on the distribution of visuospatial attention: Changes with aging and early subcortical vascular dementia', *Journal of the Neurological Sciences*, Vol. 229-230, pp. 109 - 116.
- Rouner D., Slater M. D., and Domenech – Rodriguez M., (2003), 'Adolescent Evaluation of Gender Role and Sexual Imagery in Television Advertisements', *Journal of Broadcasting and Electronic Media*, Vol. 47, pp. 435 – 454.
- Schudson M., (1984), *Advertising, the uneasy persuasion: Its dubious impact on American Society*, London: Routledge.
- Siu W-S., and Au K-M. A., (1997), 'Women in advertising: a comparison of television advertisements in China and Singapore', *Marketing Intelligence and Planning*, Vol. 15, No. 5, pp. 235 – 243.
- Stafford M. and Stafford T., (2000), 'The effectiveness of tensile pricing tactics in the advertising of services', *Journal of Advertising*, Vol. 29, No. 2, pp. 45 – 60.
- Stafford M., (1996), 'Tangibility in Services Advertising: An Investigation of Verbal versus Visual Cues', *Journal of Advertising*, Vol. 25, No3, pp. 13 – 28.
- Stice, E., and Shaw, H. E. (1994). Adverse effects of the media portrayed thin-ideal on women and linkages to bulimic symptomatology. *Journal of social and clinical psychology*, 13(3), 288-308.

- Tiggemann, M., and Polivy, J. (2010). Upward and downward: Social comparison processing of thin idealized media images. *Psychology of Women Quarterly*, 34(3), 356-364.
- Williams R., (1962), 'Advertising the magic system', in Williams R., (Ed.), *Problems in materialism and culture*, London: New Left Books, pp. 170 – 196.
- Yi Y., (1990), 'The effects of contextual priming in print advertisements', *Journal of Consumer Research*, Vol. 17, No. 2, pp. 215 – 222.

This page is intentionally left blank

APPENDICES