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Ambivalent Sexism as a Boundary Condition for the Contact Hypothesis: The Case of Romantic Relationships

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Thesis submitted in partial fulfilment of the requirements for the degree of Doctor of Philosophy in the Faculty of Social Sciences at the University of Kent at Canterbury, August 2010.

Abstract

This thesis examines whether cross-gender contact can reduce ambivalent sexism in men. According to intergroup contact theory (e.g. Allport, 1954, Amir, 1969, Pettigrew, 1997), positive contact reduces prejudice. Sexism has been defined as gender-based prejudice (Glick & Fiske, 1996); hence contact may reduce sexism in men. However, a literature review suggests that men distinguish between 'good' and 'bad' women (e.g. Tavris & Wade, 1984) and respond to them differentially (e.g. Glick et al., 1997). Thus, cross-gender contact might not be effective in reducing sexism and the reverse causal sequence may be operating. It is the aim of this thesis to test these opposing predictions.

This thesis presents nine empirical studies. Study 1 links ambivalent sexism and the contact hypothesis. Studies 2 and 3 attempt to establish the causal sequence of the link between sexism and contact. Study 4 is a simplification of Study 1, focussing on the context of romantic relationships. Study 5 is a pilot study, testing materials by Siebler et al. (2008) and linking them to the stereotype content model (Fiske et al., 2002). These materials are used in Studies 6 to 8, which assess whether ambivalent sexism predicts partner (i.e. contact) preferences in men. Study 9 presents longitudinal data to address the question regarding the causal sequence of the sexism – contact link.

Taken together, the results indicate that sexism leads to selective contact preferences in men. While hostile sexism is linked to contact quality, Study 8 indicates that this is due to the rejection of non-traditional romantic partners by men high in hostile sexism. With reference to benevolent sexism, the results indicate that higher levels of benevolent sexism predict preferences for a traditional romantic partner. The thesis concludes with a summary of the findings, a discussion of limitations and suggestions for future research.

Memorandum

The research for this dissertation was conducted while the author was a full-time postgraduate student in the School of Psychology at the University of Kent at Canterbury, UK (September 2006 – August 2010) on a postgraduate scholarship from the School of Psychology at the University of Kent.

The theoretical and empirical work herein is the independent work of the author. Intellectual debts are acknowledged in the text. The execution of the studies reported in this thesis required some limited assistance from other people; their role consisted of administering questionnaires.

The author has not been awarded a degree by this or any other university for the work included in this thesis.

"The philosophers have only interpreted the world, in various ways.

The point, however, is to change it."

- Karl Marx, 1845, *Theses on Feuerbach*, Thesis XI

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Ambivalent Sexism as a Boundary Condition for the Contact Hypothesis: The Case of Romantic Relationships

Table of Contents

List of Tables ... 11

List of Figures ... 13

Thesis Overview ... 14

Chapter 1: ... 17

- Introduction ... 18
- Prejudice and Ambivalent Sexism ... 18
- Ambivalent Sexism Theory ... 23
- Stereotype Content Model ... 40
- Social Role Theory ... 43
- Conclusion ... 44

Chapter 2: ... 45

- Introduction ... 46
- The Intergroup Contact Hypothesis ... 46
- Gender and Contact ... 58
- Synthesis: Ambivalent Sexism, Contact and Romantic Relationships ... 66
- Research Questions & Thesis Outline ... 70

Chapter 3: ... 73

- Introduction ... 74

Ease of Retrieval ... 76

The present research... 77

Study 1 ... 78

Method ... 79

Results ... 83

Discussion ... 86

Study 2 ... 87

The present research ... 88

Method ... 90

Results ... 92

Discussion ... 97

General Discussion ... 97

Chapter 4: ... 100

Introduction ... 101

Gender Segregation ... 101

Contact in romantic relationships ... 103

The present research ... 104

Study 3 ... 105

Method ... 105

Results ... 106

Discussion ... 110

Study 4 ... 111

Method ... 112

Results ... 114

Discussion 116

General Discussion 118

Chapter 5: 120

Introduction 121

Social Role Theory 121

Ambivalent sexism and responses to women 123

Stereotype Content Model 125

The present research 128

Study 5 130

Methods 130

Results 133

Discussion 134

Study 6 135

The present research 135

Method 136

Results 138

Discussion 141

General Discussion 142

Chapter 6: 144

Introduction 145

Study 7 146

The present research 146

Method 147

Results 149

Discussion 157

Study 8 158

The present research 158

Method 160

Results 161

Discussion 167

General Discussion 168

Chapter 7: 174

Introduction 175

Longitudinal Research on Intergroup Contact 175

ASI Longitudinally 177

Cross-Lagged Panel Designs 179

The present research 180

Study 9 182

Method 182

Results 185

Discussion 198

Chapter 8: 204

Background & Aims of Thesis 205

Summary of Results 207

Theoretical Implications of the Findings 209

Practical Implications of the Findings 215

Limitations and Future Research 217

Summary 222

References 224

Appendix A 247

Appendix B 249

Appendix C 250

Appendix D 253

Appendix E. 254

List of Tables

Table 1 85

Table 2 93

Table 3 95

Table 4 96

Table 5 107

Table 6 108

Table 7 108

Table 8 109

Table 9 109

Table 10 115

Table 11 116

Table 12 139

Table 13 140

Table 14 150

Table 15 151

Table 16 153

Table 17 155

Table 18 162

Table 19 163

Table 20 165

Table 21 186

Table 22 189

Table 23 193

Table 24 197

List of Figures

Figure 1. The effects of BS and Condition on REL. 141

Figure 2. The effects of BS and Condition on REL. 152

Figure 3. The effects of BS and Condition on RAS. 154

Figure 4. The effects of BS and Condition on QAC.. 156

Figure 5. The effects of HS and Condition on REL. 164

Figure 6. The effects of HS and Condition on QAC. 166

Figure 7. Saturated Model (Model 1a). 192

Figure 8. Contact Model (Model 1b).. 192

Figure 9. Prejudice Model (Model 1c). 193

Figure 10. Saturated Model (Model 2a). 195

Figure 11. Contact Model (Model 2b).. 196

Figure 12. Prejudice Model (Model 2c). 196

Thesis Overview

Chapter 1 reviews the available literature on ambivalent sexism and introduces the stereotype content model (Fiske, Xu, Cuddy & Glick, 1999) and social role theory (Eagly, 1987). The chapter discusses the definition of sexism as prejudice and outlines the development of ambivalent sexism theory and the ambivalent sexism inventory. The chapter also includes a comparison of the concepts of sexism and racism and presents research on the negative consequences of sexism.

In Chapter 2, literature on the contact hypothesis and on the gender and relationship context is presented. Particular attention is given to the importance of contact quality. The chapter links the contact hypothesis to gender and sexism and discusses the effects of mere contact frequency. Chapter 2 also discusses partner preferences, sex role orientation and romantic relationships. The chapter concludes with an integration of the literature discussed in Chapters 1 and 2, developing a framework and hypotheses that will be tested in the following chapters.

Chapter 3 reports two studies (Studies 1 and 2), which investigate the impact of cross-gender contact on men's ambivalent sexism. In Study 1, participants recall either two or six, positive or negative examples of contact with women. The results of this study are not supportive of the argument that positive contact reduces men's sexism. Study 2 investigates the link between contact quality and sexism. Even though this study yields a significant correlation between hostile sexism and contact quality, the findings do not resolve the question of direction of causality.

Chapter 4 contains two studies (Studies 3 and 4), which investigate the impact of cross-gender contact specifically in romantic relationships. Study 3 features the same design as Study 2 and does not yield an indication of the direction of causality. Study 4 is a simplification of the design of Study 1 and does not reveal significant results. The chapter concludes with a discussion of methodological problems of the studies and argues for high stability of ambivalent sexism.

Chapter 5 reports a pilot study (Study 5) that links materials provided by Siebler, Sabelus and Bohner (2008) to the dimensions of competence and warmth as outlined by the stereotype content model. Study 5 shows that a fictitious traditional woman is perceived as significantly warmer than competent and that the opposite is true for a fictitious non-traditional woman. Study 6 utilises these descriptions to test whether sexism causally impacts on romantic partner preferences. However, even though there is a significant main effect of benevolent sexism on the wish for a relationship, the relevant interaction terms do not indicate that sexists prefer a traditional over a non-traditional romantic partner.

Chapter 6 contains two studies (Studies 7 and 8) that extend Study 6. Study 7 adds contact quality and anticipated relationship satisfaction as dependent variables. The results show a preference for a traditional partner on all three dependent variables in men high in benevolent sexism. Study 8 adopts the imagined contact paradigm by Crisp, Stathi, Turner and Husnu (2008) in order to intensify the experimental manipulation of the previous studies. The results indicate a rejection of non-traditional women as romantic partners in men high in hostile sexism.

Chapter 7 is the final empirical chapter and presents longitudinal data. According to Pettigrew (1996), longitudinal designs are best to assess questions of causal order. The results of Study 9 indicate that benevolent sexism in men predicts preferences for a traditional partner. Unexpectedly, high contact quality in these data is related to increases in hostile sexism over time.

Chapter 8 summarises the findings of this thesis and suggests directions for future research. The chapter discusses the role of hostile and benevolent sexism and cross-gender contact in maintaining the status quo. Theoretical and practical implications mentioned in Chapter 8 include equal access to employment and the role of sexism and endorsement of romantic beliefs in women. Chapter 8 concludes with a discussion of the limitations of the research and directions for future research.

Chapter 1:

Ambivalent Sexism, Stereotype Content and Social Roles

Chapter 1 introduces ambivalent sexism theory (Glick & Fiske, 1996), the stereotype content model (Fiske, Xu, Cuddy & Glick, 1999) and social role theory (Eagly, 1987). The first part of the chapter discusses the definition of sexism as a form of prejudice and gives an overview of the development of ambivalent sexism theory from theories of modern racism, modern sexism and neosexism. This is followed by an outline of ambivalent sexism theory and a summary of the development and validation of the ambivalent sexism inventory (ASI). Chapter 1 will then compare the concepts of sexism and racism and present findings on the negative consequences of ambivalent sexism and a discussion of the developmental aspects of ambivalent sexism. The last part of Chapter 1 introduces the stereotype content model and social role theory as frameworks that are theoretically connected to ambivalent sexism theory, and which will be relevant later in this thesis.

Introduction

The aim of this thesis is to establish whether cross-group contact between women and men reduces ambivalent sexism directed at women or whether ambivalent sexism predicts contact preferences in men. For this purpose, this thesis links ambivalent sexism theory (e.g. Glick & Fiske, 1996) with the intergroup contact hypothesis (e.g. Allport, 1954; Pettigrew, 1998) and findings on partner preferences (e.g. Johannesen-Schmidt & Eagly, 2002). Chapter 1 reviews the development of ambivalent sexism theory (AST, Glick & Fiske, 1996) from earlier theories of racism and sexism and discusses related theoretical frameworks such as the stereotype content model (SCM, Fiske, Cuddy, Glick, & Xu, 2002) and social role theory (SRT, Eagly, 1987). The hypotheses and theoretical framework of this thesis will be fully outlined at the end of Chapter 2. This outline will be preceded by an introduction to the intergroup contact hypothesis (Allport, 1954; Pettigrew, 1998) and an introduction to the literature on gender relations, the status quo in gender relations and sex role orientations and their impact on (contact) outcomes in heterosexual relationships.

Prejudice and Ambivalent Sexism

According to Allport's (1954) "The Nature of Prejudice", prejudice is "an avertive or hostile attitude toward a person who belongs to a group, simply because he [sic] belongs to that group, and is therefore presumed to have the objectionable qualities ascribed to the group" (p. 7). All of the definitions of prejudice used in "The Nature of Prejudice" emphasise that prejudice is a negative attitude based on the target person's group membership. Other researchers followed this notion of prejudice as an antipathy (e.g. Brown, 1995; Crosby, Bromley & Saxe, 1980; Worchel, Cooper & Goethals, 1988). Thus,

the antipathy model of prejudice has been widely accepted by researchers in the field of intergroup attitudes and prejudice.

Sexism can be defined as a form of prejudice based on gender (e.g. Brown, 1995; Glick & Fiske, 1996; Glick & Hilt, 2000). Like other forms of prejudice, it has traditionally been associated with hostility (e.g. Spence & Helmreich, 1972; Swim, Aikin, Hall, & Hunter, 1995; Tougas, Brown, Beaton, & Joly, 1995) and a definition by Cameron (1977) emphasises this notion of sexism as hostility towards women: Sexism is "a prejudicial attitude or discriminatory behaviour based on the presumed inferiority or difference of women as a group" (p. 340). Cameron's (1977) definition is thus in line with Allport (1954), who points out that some people might see women as a different, usually inferior, species.

Modern racism.

The sexism theories outlined below were developed based on the concept of modern racism (McConahay, 1986). Modern racism theory was an update of symbolic racism theory (McConahay & Hough, 1976) and was a response to the dilemma that racial attitudes could not be measured in the US general public any more due to the outcomes of the civil rights movement making the expression of traditional racism less prevalent (McConahay, 1986). Thus, it was necessary to adapt the theoretical reasoning and related measurement instruments to the changing existential orientation and political climate in American society (McConahay, 1986). Modern racism theory stated the denial of discrimination as a persisting problem in American society: Modern racists perceive Blacks as pushing too hard to get into domains in which they are not welcome and consider gains

by Blacks as undeserved as they are obtained by unfair tactics and demands. Yet modern racists would not consider themselves as being racist, since they view their reservation as being based on empirical facts (McConahay, 1986).

An interesting point in modern racism theory is McConahay's (1986) outline of the possibility of ambivalent prejudices arising from negative affective content directed at Blacks, conflicting with the desire to be consistent with American values of equality and fair play and the need to maintain a positive and non-prejudiced self-image. The theory concludes that most White Americans are not univalently positive or negative in their attitudes towards Black Americans but actually display an ambivalent attitude structure. This ambivalence should manifest itself in high modern racism scores and low old-fashioned racism scores on the respective measurement instruments (McConahay, 1986).

Modern sexism.

One adaptation of the concept of modern racism to the gender context is Swim et al.'s (1995) concept of modern sexism. Swim et al. (1995) conceptualise the construct of modern sexism as the rejection of old-fashioned stereotypes. They argue that old-fashioned sexist attitudes are suppressed due to contemporary social pressures. Hence, modern sexists claim that there is no such thing as sexism, discrimination of women or gender inequality anymore. However, even though modern sexists reject old-fashioned discrimination and stereotypes, they resent women's greater economic and political power in modern society and deny women further demands of economic or societal power. Modern sexists are assumed to resist policies designed to help women, such as policies to improve education or the work environment for women. Swim et al. (1995) conclude that "the endorsement of

gender equality does not appear to parallel changes in behaviours indicative of equality" (p. 200).

Swim et al. (1995) developed the modern sexism scale with a range of items referring to perceptions of continued discrimination and inequality. Example items are *"Discrimination against women is no longer a problem in the United States"* and *"Over the past few years, the government and news media have been showing more concern about the treatment of women than is warranted by women's actual experiences"*. Swim et al. (1995) show that modern sexism can be distinguished from old-fashioned forms of sexism and conclude that modern sexism is related to, but independent of, old-fashioned sexism. The findings by Swim et al. (1995) point towards a possible separation of beliefs about women in two distinct components: Old-fashioned sexism that questions women's intelligence and supports unequal treatment based on gender, and modern sexism, sympathising less with women's issues. These two distinct types of beliefs are correlated and, according to Swim et al. (1995), indicate that modern sexists might also endorse old-fashioned, traditional beliefs about women.

Neosexism.

Tougas et al. (1995) proposed the concept of neosexism and designed an associated measurement instrument. Neosexism theory – like modern sexism theory – is based on the theory of modern racism and emphasises resistance to changes in traditional gender roles. Tougas et al. (1995) adapted the items of the modern racism scale by McConahay (1986). Example items are *"Over the past few years, women have gotten more from government than they deserve"* and *"Due to social pressures, firms frequently have to hire*

underqualified women". Analogous to the arguments by McConahay (1986) and Swim et al. (1995), Tougas et al. (1995) propose that the expression of overt sexist attitudes has been condemned in contemporary society. However, Tougas et al. (1995) also call attention to the occurrence of sex discrimination apparent in the labour statistics, manifesting in lower wages for women and reduced concentration of women in some areas of employment. They argue that gender prejudice may still be prevalent; yet its appearance has been altered due to the reduced acceptance of the public expression of sexist beliefs.

Since the theoretical basis for the neosexism construct arises from modern racism theory (McConahay, 1986), Tougas et al. (1995) propose that similar arguments as those presented for the racial context can be made about the social evolution of sexist beliefs. They define neosexism as a "manifestation of a conflict between egalitarian values and residual negative feelings toward women" (p. 843). Tougas et al. (1995) propose that neosexism and old-fashioned forms of sexism should be correlated. Neosexism is assumed to be a reliable predictor of political attitudes, especially attitudes towards affirmative action programmes, in the gender context. Tougas et al. (1995) thus emphasise the importance of gender prejudice for the understanding of men's reactions to promoting the situation of women.

Modern sexism versus neosexism.

Campbell, Schellenberg and Senn (1997) compared both contemporary sexism measures and found a moderate to strong correlation of $r = .59$ between the modern sexism and the neosexism scales. Both scales also predicted lack of support for the feminist movement and negative attitudes towards lesbians and gay men. Campbell et al. (1997) consider both measures appropriate for the assessment of modern gender prejudice. However, their results

consistently favour the neosexism scale. While neosexism theory and measurement are based on all three propositions of modern racism theory, modern sexism is only based on one. Thus, Campbell et al. (1997) conclude that the concept and measurement of neosexism is superior to modern sexism theory and assessment.

Ambivalent Sexism Theory

Sexism is often conceptualised as gender-based hostility (e.g. Cameron, 1977; Swim et al., 1995; Tougas et al., 1995). Nonetheless, researchers have begun to question the conceptualisation of sexism as a unitary hostility towards women. Glick and Fiske (1996) agree with the definition of sexism as a form of prejudice, however, they add that sexism is a "special case of prejudice marked by a deep ambivalence, rather than a uniform antipathy, toward women" (p. 491).

Glick and Fiske (2001a) argue that men have historically and cross-culturally always been the dominant sex. One possible reason for the prevalence of patriarchy across times and cultures is related to human sexual reproduction. In addition, the greater size and strength of men in comparison to women may be a factor in male domination in preindustrial societies (Glick & Fiske, 1996). The gender-based division of roles, with women performing the vast amount of domestic work, can further be considered a component supporting patriarchy (Glick & Fiske, 1996). Thus, some features of human biology along with societal aspects constitute important factors in male-female intergroup relations and their implied hierarchy.

In their outline of ambivalent sexism theory, Glick and Fiske (1996) argue that differences in physical appearance commonly lead to intergroup hostility. However, based on the interdependence between the sexes, the context of gender relations differs in

significant ways from other intergroup contexts (Glick & Fiske, 1996). Men are highly dependent on women as members of the subordinate group: Men need women as mothers, wives and romantic objects. Glick and Fiske (1996) argue that this coexistence of female dyadic power with male structural power leads to a complex power balance between the sexes. Hence, ambivalent sexism theory proposes that sexism is a multidimensional construct that consists of two sets of sexist attitudes: Hostile and benevolent sexism.

Ambivalent sexism theory (e.g. Glick & Fiske, 1996, Glick & Fiske, 1999a) explains gender based attitudes by exploring men's attitudes towards women (ambivalent sexism; e.g. Glick & Fiske, 1996, Glick & Fiske, 1997) and women's attitudes towards men (ambivalence toward men; e.g. Glick & Fiske, 1999a; Glick et al., 2004). Glick and Fiske (2001a, 2001b) argue that the subjective nature of prejudice is strongly influenced by whether it is directed 'upwards' (from a lower status group to a higher status group) or 'downwards'. Upwardly directed prejudice is more likely to be envious, consisting of an implicit admiration for the powerful group, and can include the wish to undermine its status. In contrast, groups with high status are more likely to display a paternalistic form of prejudice towards the lower status group, which is characterised by patronising affection as well as hostile condescension (Glick & Fiske, 2001a). With hostile and benevolent components, these prejudices can be ambivalent, especially if – as with women and men – the groups are interdependent (Glick & Hilt, 2000).

Hostile sexism has been conceptualised according to the classic definition of prejudice by Allport (1954). Thus, the notion of hostile sexism is one of sexist antipathy. Generally, there is a high prevalence of hostile reactions and discrimination against women, and women are restricted to low-status social roles across cultures (see Glick & Fiske, 1996).

Hostile sexism is hypothesised to justify male power, traditional gender roles, and men's exploitation of women as sexual objects through derogatory characterisations (Glick & Fiske, 1997). As Glick and Fiske (2001a, 2001b) point out, hostile sexists hold beliefs that women are incompetent to fulfil agentic tasks, denying women access to economic, legal and political power.

In contrast, *benevolent sexism* is defined as "a set of interrelated attitudes toward women that are sexist in terms of viewing women stereotypically and in restricted roles but that are subjectively positive in feeling tone (for the perceiver) and also tend to elicit behaviours typically categorised as prosocial (e.g. helping) or intimacy-seeking (e.g. self-disclosure)" (Glick & Fiske, 1996, p. 491). Glick and Hilt (2000) emphasise that benevolent sexism should likewise be defined as a form of prejudice. This claim is based on Allport's (1954) notion that "the net effect of prejudice is to place the object of prejudice at some disadvantage not merited by his own conduct" (p. 9). Glick and Hilt (2000) propose that seeking to place an outgroup at a disadvantage is the core element in defining prejudice and, by accepting this definition, the concept of benevolent prejudice may be understood. As such, these authors argue that the emotional, cognitive and behavioural aspects of these attitudes may be subjectively favourable, unfavourable or ambivalent for the perceiver, but serve to promote and maintain the target group's subordination. In contrast to hostile sexism, benevolent sexism ascribes warm and nurturant traits to women. However, this ascription of positive traits is hypothesised to rationalise the confinement of women to domestic work.

Glick and Fiske (1996) emphasise that benevolent sexism cannot be considered as positive as it is based on traditional stereotyping and male dominance (a view of women

depending on men as providers). They state that the consequences following from benevolent sexism can be damaging and women do not necessarily see benevolent prejudice as being benevolent. Benevolent sexism has been related to paternalistic chivalry, a concept involving courteous and considerate attitudes towards women, but placing behavioural restrictions on them in dating relationships (Viki, Abrams, & Hutchison, 2003). Still, as Glick and Fiske (1996) emphasise, "the subjectively positive nature of the perceiver's feelings, the prosocial behaviours, and the attempts to achieve intimacy that benevolent sexism generates do not fit standard notions of prejudice" (p. 492).

Hostile and benevolent sexism are both hypothesised to comprise three different sub-components: Paternalism, gender differentiation and heterosexuality. *Paternalism* can be distinguished into dominative and protective paternalism. Paternalism is defined by Glick and Fiske (1996) as way of relating to others in the manner a father deals with his children. It is assumed to hold connotations of domination along with affection and protection. Glick and Fiske (1996) argue that the most extreme form of paternalism is the traditional marriage in which the wife defers to the greater authority of the husband, while he is the protector and provider for her and the children.

Dominative paternalism is hypothesised to be a component of hostile sexism that justifies patriarchy by portraying women as not fully competent adults. This legitimises the need for a superordinate male figure. In contrast, benevolent sexism consists of *protective paternalism*, which describes women as incompetent to share powerful roles in society. However, benevolent sexist attitudes are also characterised by feelings of affection and behaviours designed to "protect" women in a manner that reinforces their lower power and subordinate status (Glick & Fiske, 1996). Thus, paternalism in its dominative and

protective form is an ideology that is based on the assumption of women's inferiority and weakness and their need for a male protector and provider (e.g. Glick & Fiske, 1996).

The second component is *gender differentiation*, which takes the forms of competitive versus complementary gender differentiation. *Competitive gender differentiation* is a component of hostile sexism, which is assumed to justify male structural power. On the other hand, Glick and Fiske (1996) theorise that the dependency of men on women as wives, mothers and romantic objects leads to positive views of women, which are assumed to complement male traits (*complementary gender differentiation*). The complementary roles of women and men are based on the traditional division of labour, whereby women work within the home and men work outside. The positive traits ascribed to women are associated with these different roles for women and men and are perceived as complementary. Consequently, the traits ascribed to women are assumed to compensate for traits stereotypically missing in men and justify benevolent sexism.

The third component of ambivalent sexism is *heterosexuality*, which is assumed to be the most powerful source of male ambivalence towards females. Heterosexuality can be distinguished in heterosexual hostility and heterosexual intimacy. *Heterosexual hostility* is based on men's desire to dominate women to regain the status quo that is potentially threatened by heterosexual intimacy. On the other hand, men are assumed to strive for *heterosexual intimacy* with women. Glick and Fiske (1996) argue that heterosexual romantic relationships are considered as one of the most important sources for happiness (see Berscheid & Peplau, 1983) and are often the psychologically closest and most intimate relationships in men's lives. However, this dependency of men on women within romantic relationships leads to the unusual situation in which members of the dominant group

depend on members of the subordinate group.

The Ambivalent Sexism Inventory.

To measure ambivalent sexism, Glick and Fiske (1996) developed the Ambivalent Sexism Inventory (ASI). Ambivalent sexism theory assumes that members of both sexes, who approve of hostile and benevolent sexism, display ambivalent gender prejudice which can be measured using the ASI. The ASI consists of a benevolent sexism and a hostile sexism subscale, which are composed of eleven items each. The ASI was developed and tested on six samples consisting of 2,250 participants. Among these samples were college students, university undergraduates and non-students, who were recruited from the general public (Glick & Fiske, 1996). The starting point for scale development was an item pool of about one-hundred and forty statements, to which the first sample (college students) was asked to indicate their degree of agreement on a 0 (disagree strongly) to 5 (agree strongly) Likert-type scale. From the results of this first study, the item pool was reduced. This reduced preliminary version of the ASI was administered to the later participant samples. Throughout the scale development process, a proportion of items were re-worded in order to avoid acquiescence bias.

In line with the scale's theoretical background, the hostile sexism subscale (HS) was constructed to tap into the three components of dominative paternalism, competitive gender differentiation and heterosexual hostility. In a similar vein, the benevolent sexism subscale (BS) was constructed to measure protective paternalism, complementary gender differentiation and heterosexual intimacy. Glick and Fiske (1996) argue that their findings are in line with the theoretical predictions. Confirmatory factor analyses in five of the

studies by Glick and Fiske (1996) show that HS and BS are best represented by two separate latent factors. However, the proposed three sub-factors were only consistently confirmed for the benevolent sexism subscale. In addition, Glick and Fiske (1996) tested and found similar factor structures for women and men in two studies. Across the studies, the hostile and benevolent subscales were positively correlated. However, a gender difference emerged for the non-student samples, where the two scales were significantly positively correlated among the female sample but non-significantly negatively correlated among male participants. Across studies, men's mean sexism scores were higher than women's, whereby the gender differences were particularly pronounced for the HS scores.

Glick et al. (2000) evaluated the ASI across nineteen nations and concluded that hostile and benevolent sexism are coherent ideologies in a variety of cultures. Glick and colleagues recruited over 15,000 participants from 19 countries across the world. They found hostile and benevolent sexism to be recognisable and coherent ideologies across nations and were consistently able to replicate the factor structure reported by Glick and Fiske (1996). As in the initial research, hostile and benevolent sexism were cross-nationally positively correlated. Furthermore, hostile sexism predicted negative stereotypes about women whereas benevolent sexism predicted positive trait ascriptions to women. Both forms of sexism were found to be positively related to the degree of gender inequality across nations.

Different versions of the ASI have been successfully developed and validated in other languages. For example, Eckes and Six-Materna (1999) presented a German-language version and Exposito, Moya and Glick (1998) developed a Spanish version of the ASI. Exposito et al. (1998) validated the Spanish ASI on 1110 male participants belonging to different age groups, educational levels and marital and labour status. They conclude that

the Spanish ASI displayed satisfactory convergent, discriminant and predictive validity. As the German translation of the ASI will be used in some of the studies presented in this thesis, I will briefly describe its validation by Eckes and Six-Materna (1999).

Eckes and Six-Materna (1999) administered a German translation of the ASI to five independent participant samples, consisting of 773 male and female, student and non-student participants. Analogous to the findings by Glick and Fiske (1996), the two-factor structure of the ASI was confirmed. Whereas the hostile sexism items loaded on one single latent factor, the benevolent sexism items were distributed across three sub-factors, reflecting the hypothesised constructs of protective paternalism, complementary gender differentiation and heterosexual intimacy. However, the correlations between HS and BS were substantially lower than in the initial studies by Glick and Fiske (1996). Especially for male participants, the two forms of sexism appeared to be unrelated to each other. Nevertheless, the relationships between HS and other measures of sexism reported by Glick and Fiske (1996) were replicated in the German samples. Eckes and Six-Materna (1999) conclude that the German version of the ASI is a valid and reliable measurement instrument for the assessment of sexist attitudes with opposing subjective valences.

The ambivalence in ambivalent sexism.

According to Glick and Fiske (1996), holding hostile and benevolent sexist beliefs simultaneously leads to sexist ambivalence as – subjectively – the two constructs entail opposing evaluative feelings towards women. Glick and Fiske (2001a) named their theory "ambivalent sexism theory" because of this ambivalence assumption. However, in contrast to previous notions of ambivalence, Glick and Fiske (1996) do not rule out positive

associations between the two forms of sexism. By proposing hostile and benevolent sexism, Glick and Fiske (1996) believed that the literal meaning of ambivalence – as attitudes which have "both valences" – is fulfilled.

In line with Glick and Fiske (1996), Glick, Diebold, Bailey-Werner and Zhu (1997) suggested that men may avoid conflicting feelings towards women by subtyping. Hence, ambivalent sexists might divide women into subjectively good and bad types. In two studies, Glick et al. (1997) found that ambivalent sexism predicted greater polarisation in men's evaluations of female subtypes and that hostile sexism was related to negative evaluations of women in non-traditional roles while benevolent sexism predicted favourable feelings towards women in traditional female roles. Glick and Fiske (1996, 2001a) argue that this way of categorising women allows men to avoid psychological dissonance and helps to maintain a sense of attitudinal consistency despite ambivalent feelings towards women in general. Furthermore, this form of sub-typing has the advantage of allowing the justification of ambivalent sexist attitudes as being not prejudiced.

Attitudes towards women are not uniformly positive or negative (Glick and Fiske, 2001a; see also Glick et al., 1997). The stereotype content model (SCM) by Fiske, Xu, Cuddy and Glick (1999) proposes two orthogonal dimensions of stereotypes (warmth and competence), which are hypothesised to predict liking and respect respectively. Thus, it is important to point out this cross-dimensional form of ambivalence regarding women, reflecting the conflicting valence of attitudes towards the same attitude object on different evaluative dimensions. However, Glick and Fiske (2001a) state that the actual characteristics of individual women are more complex than stereotypes of women. Thus, the problem of men's ambivalence arises again within these real-life encounters.

Particularly in romantic relationships the ambivalence can manifest itself in its most extreme forms with the possibility of domestic violence towards women, often followed by an apologetic honeymoon period (see Glick & Fiske, 2001a). Thus, in intimate relationships, ambivalence may occur and conflicting attitudes can alternate between violent sexist antipathy and exaggerated benevolence.

Criticisms of ambivalent sexism theory.

Despite the success of the theory, the concept of ambivalent sexism has not gone unchallenged. Leonard Sax (2002) asked whether the beliefs about gender differences on the dimensions of warmth and competence might reflect actual gender differences in real life instead of being erroneous and prejudiced generalisations based on group membership. He particularly criticises Glick and Fiske (2001a) for not supporting their claims with empirical evidence and argues for the existence of gender differences with regard to personality traits. Sax (2002) states that "if gender differences in personality are real, then the belief that there are gender differences in personality should not be labelled as prejudice, benevolent or otherwise, without first investigating whether the individual's particular beliefs about gender differences correspond to reality" (p. 444). Sax (2002) further points out that some of what Glick and Fiske (2001a) label benevolent sexism might be based on religious or societal expectations about close male-female relationships. He argues that "it is a biological truism from an evolutionary perspective that men are indeed incomplete without women, just as women are incomplete without men" (p. 444).

An additional challenge to ambivalent sexism theory has been presented by Petrocelli (2002). Petrocelli's (2002) critique centres on the debate regarding the presence versus

absence of ambivalence in ambivalent sexism. His argument is that Glick and Fiske's (2001a) results suggest that their participants only slightly disagreed or agreed with both forms of sexism on a 6-point Likert scale, while the notion of ambivalence requires the equal endorsement of two separate and dissonant cognitions. Therefore, he argues against the presence of ambivalence in the theory. From Petrocelli's (2002) point of view, the participants in Glick and Fiske's (2001a) research only endorse minimal degrees of hostile and benevolent sexism. He concludes that "a discrepancy of the constructs does not appear to exist" (p. 443).

In response to these criticisms, Glick and Fiske (2002) emphasise the empirical evidence concerning the existence of ambivalent sexism and its ability to predict discrimination against women. In response to Petrocelli's (2002) critique, Glick and Fiske (2002) highlight their extensive body of cross-cultural data and the differential ability of hostile and benevolent sexism to predict negative versus positive attitudes towards women. With reference to Sax's (2002) argument, Glick and Fiske (2002) state that they aimed to challenge Allport's (1954) definition of prejudice as antipathy. Evidence supports the notion that status differences between the sexes and conformity to social roles can cause gender differences in personality (see Eagly, Wood & Diekman, 2000; Glick & Fiske, 1996). Hence, Glick and Fiske (2002) point out the circularity of the relationship between a sexist society and observed sex differences.

In this thesis, one suggestion by Glick and Fiske (1997) is particularly important: The authors recommend the use of the ASI in the context of heterosexual romantic relationships. They justify their recommendation by arguing that particularly in romantic relationships, both forms of sexism should be activated and have a pervasive influence.

Glick and Fiske (1997) specifically point out the co-occurrence of love and affection with violent physical abuse in heterosexual romantic relationships as an indicator of sexist ambivalence impacting on people's closest relationships.

Sexism versus racism.

Prejudice was conceptualised as "an avertive or hostile attitude" (Allport, 1954, p. 7) and is often linked to the concept of segregation (e.g. Jackman, 1994). However, when comparing sexism to racism, it is apparent that men and women interact on a daily basis (Fiske & Stevens, 1993). Hence, it is important to pay attention to the type of segregation women and men experience in comparison to other groups. Jackman (1994) refers to two forms of segregation: Role and spatial segregation. With role segregation, groups are separated from each other due to norms or rules that prescribe appropriate behaviour based on group membership. In contrast, the separation of social groups into different spatial spheres, such as housing or public transport, is defined as spatial (physical) segregation (Jackman, 1994).

Looking at gender relations, it becomes apparent that no other groups have experienced such a long relationship of status inequality paired with high physical and psychological intimacy as women and men (Glick & Fiske, 1996). Yet successful heterosexual romantic relationships are considered vitally important for happiness in life by many people (Berscheid & Peplau, 1983). Jackman (1994) argues that role prescriptions resulting from role segregation most often occur when groups frequently interact. She argues that the core distributive processes in gender relations – sexuality and sexual reproduction – require sustained personal relationships across group boundaries. However, role segregation also

implies a certain degree of spatial segregation as the group-based specialisation of tasks requires group members' presence in different physical arenas (Jackman, 1994). This becomes apparent in the workplace: Many occupations remain sex-segregated (Pratto, Stallworth, Sidanius, & Siers, 1997), a phenomenon that is also evident in non-industrial societies (Murdock & Provost, 1973).

In contrast, segregation of different racial groups is usually characterised by physical distance, such as urban residential segregation or ethnic segregation in public transport. To the contrary, the sexes have a high degree of contact with each other in their neighbourhoods, schools and homes. Hence, despite frequent interactions between members of different sexes, there is some degree of segregation. More specifically, in the gender context, role segregation appears to be dominant and sometimes translates into spatial segregation. In the case of racism, however, spatial segregation is the predominant form of segregation and limits the opportunities for intergroup contact (Jackman, 1994).

Frequent interactions with women allow men to have knowledge and expectations based on their experiences with wives, girlfriends, mothers and daughters (Fiske & Stevens, 1993). This is referred to as the prescriptive component of gender stereotypes (Fiske & Stevens, 1993). In contrast, Whites are less likely to have close relationships with members of other ethnic groups and hence lack knowledge and expectations. There are also differences in the norms regarding the expression of sexism versus racism (Fiske & Stevens, 1993). Pictures and messages which degrade women are more prevalent than comparable materials degrading other groups. Furthermore, being considered racist appears to make people more defensive than being considered sexist (Fiske & Stevens, 1993). Jackman (2005) points out differences in the current state of prejudice against women

versus prejudice against Blacks. Due to role segregation by sex, women are still treated with paternalism, whereas Blacks – being spatially segregated from Whites – have shifted away from being treated with paternalism. A consequence of this difference is that positive, communal traits are attributed to women while Blacks are the target of more negative reactions based on their alleged lack of agentic traits (Jackman, 1994, 2005). Racism and sexism further differ in their (physical) power dynamics, whereas the social power dynamics appear to be the same (Fiske & Stevens, 1993). Women are more at risk of dominant-to-subordinate interpersonal violence from men than Blacks are at risk of violence from Whites (Jackman, 2005). Jackman (2005) argues that these forms of violence are not reflective of underlying hostility but are merely a result of strategic opportunities arising from the structure of the intergroup relationship.

The intergroup contact hypothesis (e.g. Allport, 1954; Pettigrew, 1998) was initially designed to overcome racial prejudice and discrimination, hence spatial segregation. Intergroup contact as a movement in space may be sufficient to overcome spatial segregation and its negative consequences, yet the question arises whether the effects of contact also apply to sexism and role segregation.

The consequences of ambivalent sexism.

Glick and Fiske (2001b, 2001c) argue that the combination of hostile and benevolent sexism is effective for the maintenance of the status quo in gender relations. Glick et al. (2000) provide evidence that both forms of sexism contribute to worldwide gender inequalities. With regard to findings concerning ambivalence towards men, Glick et al. (2004) found that sexist ideology likewise predicts gender inequality in cross-national

comparisons. Hence these studies provide evidence that ambivalent sexism cross-culturally promotes and reinforces existing gender inequality, placing women at a disadvantage.

Several studies demonstrate an empirical link between sexism and negative behaviours directed at women. Begany and Milburn (2002) found the relationship between authoritarianism and sexual harassment to be mediated by rape myth endorsement and hostile sexism. Furthermore, a study by Wiener and Hurt (2000) found that hostile sexist men rated social sexual conduct at work less severe, pervasive and likely to be harassing. These authors concluded that the threshold for defining behaviour as abusive seems to be high for men high in hostile sexism. Ford (2000) demonstrated that the exposure to sexist humour creates greater tolerance of sex discrimination in hostile sexists (see also Ford, Wentzel & Lorion, 2001). Furthermore, the amount of money people were willing to donate to a women's organisation and the recommended budget cuts for a women's organisation were significantly predicted by hostile sexism after participants had been exposed to sexist versus neutral jokes or non-humorous sexist statements (Ford, Boxer, Armstrong, & Edel, 2008).

Glick, Sakalli-Ugurlu, Ferreira and de Souza (2002) showed that in Turkey and Brazil, ambivalent sexism is related to attitudes legitimising wife abuse. More favourable attitudes towards patriarchy and high hostile sexism in men predicted acceptability of wife beating and blame for eliciting this violence (Sakalli, 2001). Benevolent sexism, in contrast, predicted negative views of women who engage in premarital sex, thus reinforcing traditional gender roles and the status quo (Sakalli-Ugurlu & Glick, 2003).

Abrams et al. (2003) found that hostile sexism predicts self-reported likelihood of raping in men, specifically in response to acquaintance rape scenarios (Abrams et al., 2003, Study 2). Viki, Chiroro, and Abrams (2003) replicated this finding on an African sample. Even though benevolent sexism was not found to be predictive of rape proclivity, it was related to the attribution of blame to victims of acquaintance rape (Abrams et al., 2003). Benevolent sexist individuals perceived these victims as having behaved in a way that is inapt for a woman; therefore, the victim is blamed especially, when she is perceived to violate traditional gender role expectations (Viki & Abrams, 2002).

Developmental aspects of ambivalent sexism.

The development of ambivalent sexism from childhood into adulthood is a complex process that is discussed by Glick and Hilt (2000). Glick and Hilt (2000) propose that the most relevant dimensions for the consideration of childhood prejudice are hostile gender differentiation and power differences, which are aspects of the later hostile sexism concept. At this stage, the benevolent side of gender attitudes has not developed yet as heterosexual romantic impulses are absent in children. Glick and Hilt (2000) argue that gender prejudice among children is stern and characterised by gender segregation in the playground. The relations between the sexes and gender prejudice change at the onset of puberty. Benevolent forms of gender prejudice start developing and manifest themselves in behaviour (Glick & Fiske, 1996). These changes during adolescence are caused by an increased complexity of gender-related attitudes due to the emerging interdependence between the sexes (Glick & Hilt, 2000). However, Glick and Hilt emphasise that this higher attitudinal complexity does not indicate prejudice reduction but a change in the manifestation of gender attitudes.

Furthermore, there is evidence of changes in sexism with age. Aromäki, Haebich and Lindman (2002) reported that, in comparison to younger men, older men were generally married and more sexually experienced. However, cross-sectional empirical research using participants between the ages of 18 and 65 found hostile sexism among men relatively stable across different age cohorts and observed a u-shaped curve across age groups for benevolent sexism, with the youngest and oldest men being most sexist (Fernandez, Castro, & Lorenzo, 2004). All authors stress the effects of experience with the opposite sex in their explanations of the age effects in sexism differences. Still, the question of longer-term longitudinal changes in hostile and benevolent sexism has gone unaddressed.

One of the findings that motivated this PhD was Glick and Fiske's (1996) discovery that hostile and benevolent sexism are correlated in undergraduate students, who are usually in their late teens to early twenties. These same attitudes have repeatedly been found to be uncorrelated in older samples of non-student men. In an attempt to explain these findings, Glick and Fiske (1996) argue that younger men may adopt generally sexist or egalitarian beliefs, depending on their socialisation. Older men in contrast, might have more experience in relationships with women. Glick and Fiske (1996) propose that the college years are likely to be a time of transition from simpler to more complex attitudes towards women as men gain experience.

In conclusion, there appear to be developmental aspects operating in the evolution of hostile and benevolent sexism across the lifespan. In men, these seem to be triggered by an increased interest in and more intimate experiences with women. While members of the opposite sex are initially seen as opponents, romantic and sexual interests arise in the teenage years even if this is linked to the maintenance of a gender hierarchy. Liking and

benevolence have been linked to warmth, while competition and hostility were found to be related to competence/agency related trait ascriptions (Altermatt, DeWall & Leskinen, 2003; Glick & Fiske, 2001a). In addition, evidence suggests that particularly benevolent sexism predicts romantic attraction in men towards women (e.g., Chen, Fiske & Lee, 2009). Thus, the final sections of this chapter will introduce the stereotype content model (Fiske et al., 1999; 2002) and social role theory (e.g. Eagly, 1987) to build a model of romantic partner preferences in adult men, based on ambivalent sexism theory.

Stereotype Content Model

In the tradition of researching ambivalent prejudices, the stereotype content model (Fiske et al., 1999) argues that group stereotypes are rooted along the orthogonal dimensions of warmth and competence. Thereby, the perceived group status predicts perceptions of competence, and perceptions of warmth are related to perceived lack of competition (Fiske et al., 1999; Eckes, 2002). According to Fiske et al. (2002), the valences of stereotypes can conflict along the dimensions of warmth and competence. Thus, subjectively positive stereotypes on one dimension can be accompanied with negative stereotypes on the other dimension.

The stereotype content model proposes that low-status groups are disrespected for their perceived incompetence, but may be liked and patronised. According to Fiske et al. (1999) this creates a cooperative but exploitative relationship between the groups (cf. Jackman, 1994). The perception of low competence but high warmth elicits paternalistic prejudice (Fiske et al., 2002; Glick & Fiske, 2001b). With regard to gender relations, this translates into men's benevolent sexism directed at subtypes of women who are seen as inferior but

nice, such as housewives (Fiske et al., 1999). In contrast, groups with high status are likely to be perceived as competent but cold and elicit envious prejudice (Fiske et al., 1999; Glick & Fiske, 2001b). In terms of gender, envious prejudice manifests in men's hostile sexism directed at non-traditional – cold but competent – subtypes of women such as feminists and career women (Fiske et al., 1999).

Given that the stereotype content model is partly proposed by the same authors as ambivalent sexism theory, it is not surprising that these two theoretical accounts match up well. Eckes (2002) provides evidence for the major propositions of the stereotype content model regarding the perceptions of gender subgroups. In his research, most gender subgroups fell into the mixed cells by being stereotyped as either competent but not warm or warm but not competent. In addition, these German data from mixed-sex participant samples indicated that the male equivalents of the warm but incompetent housewife are the male subtypes of softy, senior citizen, radical and hippy (Eckes, 2002). In contrast, the male counterparts to the career woman and feminist are the male subtypes of the yuppie, manager and career man (among others in the same cluster; Eckes, 2002). Interestingly, previous research seems not to have linked subtypes of men to ambivalent sexism or ambivalent attitudes towards men. In Fiske et al.'s (1999) research, the only included male subgroup was gay men. Yet Fiske et al. (1999) discuss that men's overall structural power allows them to be – as a group – perceived as powerful and high in status. In turn, findings by Fiske et al. (2002, Study 2) indicate that men as a group are indeed perceived as high in competence and low in warmth. Furthermore, Abele (2003) showed that communal traits (warmth) typically have more impact on women's lives, whereas men are traditionally more affected by competence traits.

Ambivalent sexism has further been related to participants' tendency to subtype women into "good"/traditional and "bad"/non-traditional female subtypes. Higher scores on ambivalent sexism in men lead to more polarised spontaneously generated subtypes of women when evaluating them (Glick et al., 1997). In addition hostile sexism predicted negative evaluations of non-traditional (career) women, while benevolent sexism predicted positive feelings towards traditional women (homemakers; Glick et al., 1997). Sibley and Wilson (2004) investigated the expressions of ambivalent sexism towards positive and negative sexual female subtypes. They found that male participants displayed increased hostile and decreased benevolent sexism towards a promiscuous (negative) female subtype and the opposite pattern towards a chaste (traditional) female subtype. Thus, the empirical evidence supports Fiske et al.'s (1999, 2002) claim that in the gender context, ambivalent stereotypes lead to ambivalent sexist attitudes and differential treatment of subtypes of women.

Fiske et al. (1999) argue that stereotypic content results from the structural relationships between groups. Alice Eagly (1987) suggests that gender stereotypes result from the roles of a communal homemaker and an agentic breadwinner. According to Eagly (1987) these stereotypes can shift once social roles shift. However, extending Eagly's (1987) approach, Fiske et al. (1999) focus on the structural relations between groups instead of individual role relationships. With regard to women, Fiske et al. (1999) point out that paternalistic prejudice is directed at traditional women and envious prejudice is directed at career women. Linking this contention up with ambivalent sexism theory, Fiske et al. (1999) conclude that subtyping of women results in ambivalent sexism but that the ambivalent content of stereotypes also reflects systematic principles.

Social Role Theory

Social role theory constitutes another theoretical framework that can be related to ambivalent sexism theory. In the context of this thesis, social role theory is relevant because of its predictions of partner preferences. The theory emphasises the impact of the social environment on the behaviour of individuals. Wood and Eagly (2002) argue that biosocial interactions between ecological and socioeconomic factors provide a comprehensive set of causes that accounts for differences in sex roles across societies. Eagly (1987) proposes that at a societal level, there are shared ideologies (i.e. role schemas) which are communicated among the members of a society. Therefore, sex differences in social behaviour are produced by sex-typed social roles and include mating preferences for romantic partners.

According to Eagly, Wood and Johannesen-Schmidt (2004), people aim to maximise positive and minimise negative outcomes, taking into account the environment which is constrained by societal roles and expectations associated with marital roles. Partner preferences reflect the different responsibilities and obligations inherent in current and anticipated social roles (Eagly et al., 2004), which in Western cultures traditionally has been a family system with a male provider and a female homemaker. This notion is supported by findings by Kenrick and Keefe (1992), which show that men tend to prefer younger, attractive women who are skilled homemakers, whereas women favour older partners who are good providers. Since sex differences in partner preferences are bound to the traditional division of labour, they are weaker in industrial and post-industrial societies (Eagly et al., 2004). Eagly and Wood (1999) show an empirical relationship between partner preferences and the extent of gender equality in a given society. Interestingly, the two sexes seem to agree on this issue: Men's and women's preferences equally reflect

societal gender and marital roles (Eagly & Wood, 1999).

Using Glick and Fiske's (1996) ASI to measure individual differences in gender ideology, Johannesen-Schmidt and Eagly (2002) investigated whether differences in gender ideology are associated with partner preferences. To the extent to which people favour the traditional female role, they should prefer mates who are in line with the traditional division of labour. Johannesen-Schmidt and Eagly (2002) found that participants of both sexes who scored highly in traditional expectations about women displayed sex-typed preferences which enhance the classic division of labour within married couples. This is evidence that partner preferences are associated with men's and women's social roles (Eagly et al., 2004).

Conclusion

This chapter discussed three theoretical accounts: Ambivalent sexism theory, the stereotype content model and social role theory. Ambivalent sexism represents traditional gender ideologies and is held across different societies. Research on the stereotype content model shows that women are subtyped into warm but incompetent traditional homemakers and cold but competent non-traditional career women and feminists. Additionally, in Chapter 1 I discussed that social role theory predicts the endorsement of traditional gender roles and how this impacts on romantic partner preferences. Chapter 2 will discuss the literature on the intergroup contact hypothesis (e.g. Allport, 1954) and the literature on gender, the maintenance of the status quo and romantic relationships. Chapter 2 will conclude with an integration of the literatures discussed in Chapter 1 with the literatures presented in Chapter 2.

Chapter 2:

The Contact Hypothesis, Sexism and Romantic Relationships

Chapter 2 introduces the literature on intergroup contact, focusing on the original formulation of the theory by Allport (1954) and its extension by Pettigrew (1998). The chapter also discusses the importance of contact quality for the reduction of prejudice. The second part of Chapter2 links the contact hypothesis to gender and sexism. This section relates back to the discussion of the differences between racism and sexism presented in Chapter 1. The literature on romantic relationships is reviewed, looking at the question of how partner characteristics contribute to relationship quality and happiness. For the purpose of this thesis it is necessary to consider this topic in more detail since later chapters will focus on the context of romantic relationships. Finally, I will integrate the research discussed in Chapters 1 and 2 by linking ambivalent sexism theory, the stereotype content model, social role theory, previous research findings on happiness and relationship quality and the contact hypothesis. The chapter concludes with an outline of the hypotheses underlying this thesis.

Introduction

The early literature on intergroup contact mainly focused on the improvement of race relations (Allport, 1954; Amir, 1969). Intergroup contact has been proposed to reduce prejudice and improve intergroup relations. Since the systematisation of previous ideas on intergroup contact and the formulation of the contact hypothesis by Gordon W. Allport in 1954, a wide range of research and theorising has contributed to the advancement of this approach. Chapter 2 will only discuss a fraction of the intergroup contact literature. Instead, Chapter 2 will also discuss the literature on gender with reference to the maintenance of the status quo and the literature on romantic relationships and role orientations within romantic relationships and how these impact on (contact) outcomes. As Eagly and Diekman (2005) point out, Allport (1954) omitted the discussion of gender relations in his debate of intergroup prejudice and conflict. Thus, one aim of this thesis is to link the contact hypothesis with the literature on gender relations.

The Intergroup Contact Hypothesis

Interactions between members of different groups are assumed to reduce prejudice. However, in "The Nature of Prejudice", Allport (1954) states that simply assembling people without regard for race, colour, religion or national origin is insufficient to counteract stereotypes and develop friendly attitudes. Instead, Allport (1954) argues that prejudice can be reduced by equal status contact between groups that pursue common goals. This effect is assumed to be further enhanced if the contact is supported by authorities and if intergroup cooperation is encouraged (Allport, 1954).

According to Allport (1954), groups normally pass through four stages of relationship development. At Stage 1 sheer contact occurs, which leads to competition at Stage 2, gives way to accommodation as Stage 3 and finally leads to assimilation at Stage 4. Allport (1954) argues that this sequence is followed frequently but not universally and that it is reversible – where accommodation existed, there might be retrogression to conflict and competition. The likelihood that the positive contact sequence to will occur depends on the nature of the established contact. Depending on the nature of contact, the kind of association and the kinds of persons involved, intergroup contact is capable of increasing as well as decreasing existing prejudice (Allport, 1954).

Allport (1954) distinguishes different kinds of contact. *Quantitative contact* aspects are the frequency and duration of intergroup interactions, the number of people involved and the variety of contact situations. Furthermore, there are *status aspects* implied in intergroup contact. Individual outgroup members can have inferior, equal or superior status compared to the ingroup. On the group level, the outgroup may have either high or low status. In addition, *contact quality* affects the outcome of the intergroup interaction. The relationship between the groups can be competitive or cooperative and super- or subordinate role relations can be involved. Segregation or egalitarianism may be prevalent and the encounter can be voluntary or involuntary, real or artificial. The *atmosphere surrounding intergroup interactions* is another important predictor for the contact outcome. Allport (1954) distinguishes between contact that is perceived in terms of intergroup relations versus interpersonal encounters, contact that is regarded as typical versus exceptional, important and intimate versus trivial and short-lived. Allport (1954) also places emphasis on the *personality of the individuals* involved in the contact, their initial prejudice levels and how

deeply prejudice is rooted in the character structure. Furthermore, basic security versus fear and suspicion, previous experiences with the outgroup and the strength of present stereotypes are important predictors of contact outcomes.

Contact areas.

Allport (1954) distinguishes between casual, residential, occupational, recreational, religious, civic and fraternal, political and goodwill contact. *Casual contact* is assumed to be wholly superficial. Where segregation is the custom, contacts are casual or restricted to superordinate-subordinate relationships. Allport emphasises that casual contact does not abolish prejudice, but seems likely to increase it.

In contrast, *true acquaintance* is more likely to reduce intergroup prejudice (Allport, 1954). Important for this contact form are knowledge about the outgroup and the acquaintance itself. Allport (1954) cites research showing that the experience of living and travelling together results in lesser social distance. Alternatively, acquaintance may lead to the reverse effect: "solid acquaintance may depreciate a person's standing if it brings to light realistic defects in his [sic] nature" (Allport, 1954; p. 266). Nonetheless, Allport (1954) argues that more persistent acquaintance should result in lower levels of prejudice.

The third type of contact is *residential contact*. Segregated housing implies segregation in many areas of life such as schools, stores and churches, and the development of cross-group friendship is difficult or impossible (Allport, 1954). Allport (1954) argues that segregation enhances group visibility and makes conflicts likely to occur at the boundaries of segregated areas. Moreover, residential contact may be seen as a threat by the dominant

group. Allport (1954) concludes that – in racial contexts – people who live together with members of the outgroup and are of the same economic class are more friendly, less fearful and stereotype less than people living in segregated areas. He argues that the resulting forms of communication and joint community enterprises are important to create conditions under which friendly contacts and correct social perceptions can develop.

Another option for contact is *occupational contact*. Allport (1954) argues that minority groups frequently hold lower status occupations compared to the dominant group. He concludes that occupational contacts with African-Americans of equal status has the potential of reducing prejudice, and even knowing an outgroup member of higher status can have a positive impact on intergroup attitudes.

Allport defines a set of essential conditions for intergroup contact to reduce intergroup prejudice, mainly referring to the racial context in 1950s American society. Later theorists added further supposedly essential conditions to his theory. Yet Pettigrew (1998) criticised this metamorphosis of the initially proposed conditions into a "laundry list" and suggested a solution to the confusing state of the contact literature. This more recent development of the contact literature focuses on intergroup friendship to reduce prejudice.

Intergroup contact theory (Pettigrew, 1998).

Friendship across group boundaries is proposed to improve intergroup attitudes (Pettigrew, 1998). Pettigrew (1997, 1998) recommends a longitudinal approach, stating that friendship across group lines has special importance, given that it involves long-term contact instead of mere brief and superficial acquaintance. Pettigrew's (1997, 1998)

friendship condition extends Allport's (1954) notion of the importance of having an outgroup member as an acquaintance to even closer relationships across group boundaries.

A variety of problematic theoretical and practical issues arise from the original contact hypothesis by Allport (1954; Pettigrew, 1998). These problems involve the causal sequence problem, the problem of independent variable specification, the unspecified processes of change problem and the generalisation of effects problem (Pettigrew, 1998). The *causal sequence problem* addresses the possibility that, especially in cross-sectional studies, instead of contact reducing prejudice, prejudiced people may avoid contact with outgroups (Pettigrew, 1998). Hence, in many contact studies, the impact of contact on prejudice reduction remains unclear. Three methods can be applied to solve the causal sequence problem (Pettigrew, 1998).

Prejudiced people might avoid contact with outgroup members. It would be an option to create intergroup situations with severe limits in participation choice. That way, avoiding contact is not possible and attitude improvements can be attributed to the contact itself. Secondly, statistical methods such as endogenous switching regression models (Powers & Ellison, 1995) provide possibilities for comparing reciprocal paths. Finally, researchers can solve the causal sequence problem by using longitudinal designs. For a variable to exert causal influence on another variable, it needs to precede this variable in time. Thus, there are research strategies available to tackle the causal sequence problem.

A meta-analysis by Pettigrew and Tropp (2006) addressed the causal sequence problem. Pettigrew and Tropp (2006) classified the studies in their meta-analysis by participants' level of choice to engage in contact. They argued that if the effect sizes of studies with

limited choice are greater than the effect sizes of studies allowing for more choice, this constitutes evidence that contact impacts on prejudice. Pettigrew and Tropp (2006) found this to be the case and concluded that – even though the reciprocal path also operates – intergroup contact typically reduces intergroup prejudice.

The *independent variable specification problem* identified by Pettigrew (1998) refers to the extension of Allport's (1954) list of four essential contact conditions to an "open-ended laundry list" (Pettigrew, 1998, p. 69). Pettigrew emphasises that writers occasionally confuse facilitating with essential conditions of successful intergroup contact. He argues that the factors suggested by a variety of authors for optimal contact may not be essential but may relate to underlying mediating processes. This argument has empirical support. For example, Islam and Hewstone's (1993) study showed the mediating processes of intergroup anxiety. The independent variable specification problem leads to the *unspecified processes of change problem*. As Pettigrew (1998) outlines, the original contact hypothesis does not address the processes by which contact changes attitudes and behaviour. Instead, it predicts when contact will lead to positive change, but not how and why this attitude improvement occurs.

Finally, Pettigrew (1998) discusses the *generalisation of effects problem*. The contact hypothesis does not specify how contact effects generalise beyond the immediate situation, the involved individuals and to other, uninvolved, outgroups. Group membership salience has been established as a key variable for the generalisation of contact effects (Hewstone, 1996). Hewstone (1996) emphasises the importance of decreasing the salience of group boundaries and social categories as an intermediate mechanism for the generalisation of contact effects. Others found that different dimensions of group membership salience

moderated the impact of traditional contact on generalised attitudes towards an outgroup (Vivian, Hewstone & Brown, 1997). Furthermore, the typicality of the interacting group members has been discussed thoroughly as a factor impacting on generalisation of contact effects (Hamburger, 1994). Earlier research examined the possibility that contact with a pleasant outgroup member may lead to rejection of this individual from the category and his/her placement into a subcategory. The argument was that contact with this individual would not impact on the group stereotype. However, Hamburger (1994) concludes that even atypical group members can affect the group stereotype in intergroup contact situations.

Processes of change through intergroup contact.

Pettigrew (1998) proposes four processes of change through intergroup contact. These are: Learning about the outgroup, changing behaviour, generating affective ties and ingroup reappraisal. *Learning about the outgroup* has been addressed in the original contact hypothesis as a major mechanism of prejudice reduction. Learning the truth about the outgroup should lead to more positive intergroup attitudes since it corrects false negative views. However, Pettigrew (1998) argues that learning is only one process involved in prejudice reduction. Other processes also contribute to the reduction of prejudice. To establish positive intergroup relations, a *behaviour change* due to optimal intergroup contact needs to occur as a second process (Pettigrew, 1998). Pettigrew argues that changes in behaviour are often the precursor of attitude changes. New situations often require conforming to new expectations and if these expectations include acceptance of outgroup members, behaviour has the potential to reduce prejudice. Thereby, repeated contact in different situations and settings further facilitates this process.

In addition, positive emotions and the *generation of affective ties* are crucial for the success of intergroup contact (Pettigrew, 1998). Pettigrew (1997) proposes three interrelated mechanisms, which make intergroup contact work in favour of positive intergroup attitudes. These mechanisms are empathy, identification, and ingroup reappraisal. Intergroup friendship induces empathy across group boundaries. Cross-group identification may then develop due to the close affective ties produced by intergroup friendship. Optimal intergroup contact not only provides insight about the outgroup but also about the ingroup (Pettigrew, 1997, 1998), thus, the *ingroup is reappraised.* Pettigrew (1998) labels the related process 'deprovincialisation'. It includes reshaping the individual's perspective of the outgroup and leads to less provincial views of the outgroup. Ingroup customs, norms and lifestyle are re-evaluated and the individual experiencing the contact realises that there are other ways to manage the social world. Pettigrew (1997) proposes that this new perspective serves to distance oneself from one's ingroup and leads to the individualisation and humanisation of members of the outgroup.

A reformulation of the contact hypothesis.

Based on this discussion, Pettigrew (1998) proposes a reformulation of the intergroup contact theory. Four processes need to be involved in the contact-induced attitude change, which are hypothesised to overlap and interact in complex ways (Pettigrew, 1998). Intergroup friendship is vital for the improvement of attitudes as it potentially includes all four mediating processes. Contact is proposed to lead to close, long-term relationships. The time component involved in this form of contact is particularly important since positive interactions over extended periods of time allow for the development of cross-group friendships. Thus, Pettigrew (1998) argues for a long-term perspective in intergroup contact

research to allow the sequence of decategorisation, salient categorisation and recategorisation to unfold.

Pettigrew (1998) proposes the opportunity to become friends as a fifth condition for the contact hypothesis. This implies close interactions, providing the opportunity for self-disclosure and other mechanisms of friendship development (Pettigrew, 1998). Furthermore, intergroup friendship involves extensive and repeated contact across a variety of situations. Pettigrew (1997) found that intergroup friendship was a strong and consistent predictor of reduced prejudice, an effect which generalised to a variety of outgroups. Pettigrew (1998) argues that the generalisation of positive intergroup contact effects emphasises the importance of Allport's (1954) essential conditions as they provide the setting that supports the development of intergroup friendship. However, the reformulation of the contact theory by Pettigrew (1998) implies a longitudinal perspective.

The reformulated intergroup contact theory includes a micro-, meso-, and macro-level. In line with Allport (1954), Pettigrew (1998) discusses the impact of individual differences on contact effects on the *micro-level.* This refers to the idea that prior attitudes and experiences can have an impact on people's inclination to seek versus avoid contact with outgroup members. If contact takes place, its attitudinal and behavioural outcomes might differ depending on individual differences of the participating group members. Value differences, intergroup anxiety, threat and pre-existing prejudices may influence the willingness to engage in intergroup contact and derive from the lack of previous contact. Following this, Pettigrew (1998) argues that intergroup contact and its effects on attitudes are cumulative.

On the *meso-level*, the situational factors include Allport's (1954) four conditions of optimal contact plus the friendship potential of the contact situation. These lead to less negative stereotyping, prejudice and discrimination (Pettigrew, 1998). Further aspects are factors such as equal group status even outside of the actual contact situation. According to Pettigrew (1998), these facilitating factors might step in at different stages of the contact. In addition, societies shape the effects of intergroup contact as every situation is guided by a society's institutional and societal norms. Within intergroup contact theory, society constitutes the *macro-level*. Societal contexts can have an impact on all forms of contact and may render the occurring contact less than optimal. According to Pettigrew (1998), Allport (1954) implies equivalent group power in his equal-status condition. However, equivalent group power might not be given in real-life intergroup contexts and therefore, the effects of positive contact may be undermined. Hence, the societal context in which the contact takes place is vital for the success of intergroup contact in improving attitudes.

The importance of contact quality.

This section will take a closer look at the *meso-level* of intergroup contact theory. Equal status contact between the groups, the pursuit of common goals, the generally cooperative nature of the encounter and its support by authorities have been considered essential for the prejudice-reducing effects of intergroup interactions (e.g. Allport, 1954; Amir, 1969). However, recent meta-analytic findings provide evidence that these four conditions facilitate prejudice reduction, but are not vital for contact effects to occur (Pettigrew & Tropp, 2006). In contrast, the presence of hindering conditions can be an obstacle to the development of positive intergroup relations (e.g. Amir, 1969).

Allport (1954) warned about the possible negative consequences of mere contact, not meeting the criteria of good quality intergroup interactions: “Theoretically, every superficial contact we make with an outgroup member could by the ‘law of frequency’ strengthen the adverse associations that we have” (Allport, 1954, p. 264). This is especially important because there are limits to the implementation of the contact conditions in real world contexts. As Dixon, Durrheim and Tredoux (2005) argue, in some places, such as Israel or Northern Ireland, the likelihood of the essential contact conditions to be fulfilled might be small and unrealistic. Forbes (1997, 2004) points out that interpersonal contact may be able to reduce prejudice in some cases but warns that – at a collective level – contact may work in the opposite direction.

Amir (1969), in line with Allport (1954), concludes that the impact of contact frequency can be ambiguous. In some cases high contact frequency can result in intimate relations and improve intergroup relations. However, it is equally likely that prejudice is strengthened and ethnic hostility increases (Amir, 1969). Amir (1969) emphasises that the degree of intimacy is vital for the reduction of intergroup prejudice. Whereas casual contact has little to no effect on attitude change, intimate contact appears to result in positive changes. According to Amir (1969), this is due to the consideration of the outgroup member as an individual instead of as a stereotyped outgroup member. However, Amir (1969) discusses ideas beyond the essential contact conditions. He concludes that in the absence of hindering conditions, contact involving equal status interactions has the potential to produce positive outcomes. In contrast, introducing elements of competition to the disadvantage of one of the groups may increase intergroup hatred or even violence. Hence, competition hinders positive intergroup relations whereas cooperation encourages them (e.g. Sherif, 1966).

More generally, there is evidence that if the opposites of the essential conditions are present, intergroup relationships worsen. Yet this is not the same as the absence of the essential conditions, which could be regarded as some form of a middle ground (Amir, 1969).

In a recent meta-analysis, Pettigrew and Tropp (2006) propose that Allport's (1954) conditions for positive contact are not essential but merely facilitate the reduction of prejudice. Intergroup contact was shown to successfully reduce prejudice, whereby the contact effects on prejudice were larger in studies that adhered to the optimal contact criteria more strictly (Pettigrew & Tropp, 2006). However, the stronger effects due to the positive contact conditions on the contact – prejudice link only emerged for members of majority status groups but not for members of minority status groups (Tropp & Pettigrew, 2005).

Consistent with others (e.g. Bornstein, 1989; Harmon-Jones & Allen, 2001), Pettigrew and Tropp (2006) argue that greater exposure by itself can improve the liking of outgroup members. Still, they maintain that the impact of intergroup contact is greatest when Allport's (1954) essential conditions are met. Consistent with Allport (1954) and Pettigrew (1998), Pettigrew and Tropp (2006) deem that the optimal contact conditions are best conceptualised as functioning together to facilitate positive intergroup outcomes rather than as separate factors. They emphasise the importance of Pettigrew's (1998) friendship condition and the importance of reducing intergroup anxiety. Hence, Allport's (1954) four essential conditions should not be considered essential but rather facilitative of the improvement of intergroup attitudes (Pettigrew & Tropp, 2006).

Gender and Contact

This section will discuss research and findings regarding male and female contact, reasons for the maintenance of the status quo, sex role orientations and the impact of these orientations on happiness in heterosexual relationships such as marriage. I consider it necessary to discuss these topics within this chapter since later in this thesis I will argue that most of the contact between women and men takes place in the intimacy of heterosexual romantic relationships.

Challenging ambivalent sexism within the framework of the contact hypothesis implies a strong focus on male-female contact. The literature reviewed in Chapter 4 will show that the likelihood of high-quality interactions between the sexes is particularly pronounced in romantic contexts (e.g. Hacker, 1951). Bukowski, Gauze, Hoza and Newcomb (1993) argue that women and men tend to prefer friendships with members of their own sex (see also Maccoby, 1990). In addition, Reskin (1984) points out the problem of gender segregation in the workplace, including physical separation as well as institutionalised forms of social distance between different levels of the organisational hierarchy, often occupied selectively by women or men.

If one accepts this argument of high prevalence of gender segregation in people's daily routines, then there is limited room for Pettigrew's (1998) intergroup friendship sequence. Thus, the contact that has been hypothesised to reduce prejudice in other intergroup contexts may not take place between the sexes. Yet committed romantic relationships would permit repeated contact across a variety of situations and would allow high levels of intimacy (see Pettigrew, 1998). Moreover, official statistics show that many people indeed engage in this form of contact (Office for National Statistics, 2001; US Census Bureau,

2000). However, it remains to be discussed whether the quality of the contact experienced in a romantic cross-gender context is sufficiently high to improve pre-existing attitudes and prejudices.

The contact hypothesis and sexism.

Allport (1954) seems to have had predominantly racial prejudice in mind when writing "The Nature of Prejudice" in 1954 (Eagly & Diekman, 2005). As Allport (1954) pointed out, prejudice often only becomes recognised when social movements challenge the status quo. This might explain Allport's (1954) and other researcher's focus on racism and the omission of gender prejudice in the scientific debate at the time (Eagly & Diekman, 2005). In contemporary discourse, "gender prejudice" refers to prejudice against women (Eagly & Diekman, 2005), particularly against women who strive for new roles (see Glick & Fiske, 1996; Glick et al., 1997). Chapter 1 outlined the differences between racism and sexism, emphasising that, in the instance of gender, close relationships across group boundaries are the standard rather than the exception (Fiske & Stevens, 1993).

However, contact between women and men does not necessarily lead to a reduction of sexist attitudes. Gutek, Cohen and Konrad (1990) focused on the quantity of cross-gender contact in the workplace and proposed a higher frequency of sexual harassment among people with more cross-gender contact at work. Gutek et al.'s (1990) findings revealed that about one-third of women and one-fourth of men in the sample reported sexual harassment experiences in their current job. These results indicate that sexual harassment increased as a function of the amount of contact with the opposite sex. Nevertheless, not all male-female contact in the workplace results in sexual harassment or discrimination. As Gutek et al.

(1990) show, mixed-sex workplaces also lead to increases in non-harassing sexual behaviour and, contrary to their hypothesis, these experiences were not different for women and men. Still, searching the literature on gender relations in the workplace appears to yield mainly results of scholarly activity focussing on negative outcomes, particularly for women.

Gruber (1998) proposed that in the workplace, women are often placed in situations in which they have power disadvantages and/or heightened visibility. He points out that in traditional female domains women are often sexually harassed due to their lack of power. In contrast, women in traditional male positions are often treated with hostility as they are perceived to invade and undermine male power and privilege. Gruber (1998) found support for the hypothesis that increased contact between the sexes in the workplace leads to increased sexual harassment of female employees. Thus, the findings of these two studies support the argument that mere contact might result in negative outcomes. This underlines the importance of positive contact between subordinate/minority and dominant/majority group members.

The maintenance of the status quo in gender relations.

According to Hacker (1951) women can be defined as a minority group. In this perspective, the crucial identifying factor for a minority group is the presence of discrimination (Hacker, 1951). Chapter 1 argued that women and men have frequent contact but this contact does not challenge gender prejudice and discrimination (see Fiske & Stevens, 1993; Jackman, 1994). Jackman and Crane (1986) provide a theoretical account of the mechanisms justifying intergroup relations despite high levels of closeness and

discuss why the concept of social distance does not apply to gender relations in the same way as it does to race relations. These authors argue that intergroup intimacy might foster affection but may not challenge political commitments that sustain institutional discrimination. In contrast to race relations, gender relations include regular and intimate contact between women and men but leave men's acceptance of patriarchal arrangements intact.

Jackman and Crane (1986) suggest a sequence of justifying ideologies on behalf of majority group members (Whites, men) who are friends with members of the minority group (Blacks, women): Dominant group members are assumed to separate their personal relationships with subordinates from the impersonal relationships with the subordinate group. However, due to the personal connection with the subordinate group members, dominants feel authoritative and are confident about their judgements of the subordinate group. The friendship with a few subordinate group members leads the dominant group members to feel that they are personally unbiased and fair in their assessments of the subordinate group, which makes them more self-righteous about their views on the outgroup (Jackman & Crane, 1986).

Jackman and Crane's (1986) data indicate that personal contact has a primary impact on affect but friendship does not challenge inequalities between the groups on a societal level. Thus, these authors point out that the crucial issue is not whether equality within a personal relationship is generalised to the outgroup but whether the outgroup friend was an equal to begin with. Jackman and Crane (1986) conclude that having an outgroup friend of low socioeconomic status generally does not improve ingroup members' attitudes towards the outgroup. This argument can easily be transferred to the gender context. An early literature review by Hacker (1951) concluded that women in the economic sphere are often confined

to work under male supervision and that women experience disadvantages regarding payment, promotion and responsibility. Hence, even women who are 'allowed' to join the workforce do often not achieve equal status with their male counterparts.

Hacker (1951) states that close personal ties between the sexes do not threaten sexual inequality. Thus, marriage as the smallest form of social distance (Bogardus, 1933; 1967) is still an intimate relationship of inherent inequality (Hacker, 1951). On Bogardus's scale, marriage is hypothesised to imply the readiness to engage in all other levels of lesser intimacy. However, men who get married accept this close level of intimacy with their wives while refusing to associate with women in other situations (Hacker, 1951). Consequently, the steps of the social distance scale are reversed in the instance of heterosexual marriage and sexism. Based on this reasoning, Hacker (1951) raises the question whether marriage indeed corresponds to the point of minimum social distance.

Jackman and Crane (1986) conclude that men often experience high levels of personal contact with women and tend to experience positive affect regarding women. However, they often withhold support for the implementation of women's equality. Thus, there seems to be a contrast between the small minority of men expressing an affective preference for men over women and nearly two-thirds of men disfavouring efforts by the government to promote gender equality in legal rights and job opportunities (Jackman & Crane, 1986). Taking this point even further, Jackman and Crane (1986) suggest that love and sexism not only often coexist but are closely intertwined. They state that prejudice derives from an implicit sense of group position and that members of dominant groups will seek to defend their privilege independently of their affective bonds with members of the subordinate group. This, again, is reflected in Hacker's (1995) notion of marriage as the ultimate point of acceptance on Bogardus' social distance scale as an intimate relationship of inequality.

It has been argued that the central feature of any ideology of inequality is a set of value laden beliefs about the distinctiveness of social groups in their personal attributes (Jackman & Senter, 1983). As discussed in Chapter 1, sexism and gender inequality are based on role differentiation in personal relationships rather than on spatial segregation (Jackman, 1994). Hence, gender inequality should be based on personality traits bearing on role suitability. Indeed, women and men agree on trait differences between their two gender groups and the distinctions made between them exceed those made between races (Jackman & Senter, 1983).

Agreement between the dominant and the subordinate group can be seen as an indicator of the absence of threats to the existing status quo. If there is no serious challenge to the dominant group's perspective and status, derogation of the subordinate group is unnecessary and may counteract the continuation of the ideological control of the intergroup relationship (Jackman & Senter, 1983). Moreover, the dominant group can resort to paternalism to stress the value of the subordinate group within strictly defined boundaries (Jackman and Senter, 1983). Hence, the subordinate group has no reason to challenge the status quo since status differentials between these roles become less apparent. In this way, large but neutral to positive trait distinctions can be seen as a means for the dominant group to control an ideology that can be more sinister than derogation (Jackman & Senter, 1983). Jackman and Crane (1986) conclude that "as women have long understood implicitly, intergroup friendship increases the bonds of affection with subordinates, but it does not undercut the discrimination that defines the unequal relationship between the two groups" (p. 482).

Sex role orientation, partner preferences and romantic compatibility.

Analogous to Jackman (2005), Henley and Kramarae (1991) hypothesise that traditional gender roles were legitimised and institutionalised by cultures as a way to maintain a structure of male dominance and female subordination. Two contradicting effects have been assumed to occur in contemporary societies with their changing gender role expectations (Ickes, 1993): On the one hand, humans appear to be ruled by their biological and cultural heritage in that they are attracted to complementary attributes in potential partners. However, contemporary gender equality ideals elicit negative reactions to the asymmetrical power relations and miscommunications between traditionally sex-typed women and men. Ickes (1993) points out that instincts rooted in the past rule physical and sexual attraction but also interfere with the establishment of non-exploitative, equal romantic relationships. Thus, the traditional gender roles that foster initial attraction hamper communication and lead to dissatisfaction later in the relationship (Ickes, 1993).

Ickes and Barnes (1978) found that the endorsement of traditional sex roles contributes to the incompatibility of male-female relationships. The classification into traditional and non-traditional sex role orientation was based on the Bem Sex Role Inventory. Ickes and Barnes contrasted four types of dyads: A masculine typed man and a feminine typed woman, a masculine typed man and an androgynous typed woman, an androgynous typed man and a feminine typed woman and an androgynous typed man and an androgynous typed woman. The first male-female combination can be labelled 'traditional' since both members of the dyad hold sex role identifications consistent with their biological sex. In contrast, the latter three dyad types can be labelled 'non-traditional' since in these dyads either one or both members scored high on sex role identification ascribed to the opposite

sex (i.e. being androgynous).

In Ickes and Barnes' (1978) study, the traditional participant dyads had less involving and rewarding interactions than the non-traditional dyads. Traditional participants looked and gestured less frequently at each other and for shorter periods of time and expressed less positive affect such as smiling and laughing in comparison to the participants in the other dyad types. The authors conclude that adherence to socially endorsed sex roles can lead to social incompatibility between women and men. In order to investigate the generalisability of these findings to long-term dyadic relationships, Shaver, Pullis and Olds (1980) conducted survey research with the readers of a women's magazine. A recurring theme in Shaver et al.'s (1980) findings is the pronounced dissatisfaction of traditionally feminine women involved with men whom they perceived as traditionally masculine. These women scored significantly lower on measures of general happiness and life satisfaction and on relationship quality and felt generally "underloved" as compared to women in relationships where either sex roles were reversed or both partners displayed androgynous character traits.

Similar to Eagly (1987), Seyfried and Hendrick (1973) argue that sex-role expectancies can be defined as a "set of beliefs and attitudes concerning the appropriateness of various behaviours for one's own sex as well as for the opposite sex" (p. 15). They suggest that masculine and feminine sex-role sets can be seen as complementary role expectations that represent a contractual arrangement between people to relate to each other in an interdependent but dissimilar way. Seyfried and Hendrick (1973) propose that attraction between the sexes depends on the extent to which each of the interaction partners holds an attitude set that is considered appropriate. On the other hand, similarity (in the sense of

lacking complementarity) in attitudes of romantic partners can lead to tremendous conflicts in real life (Seyfried & Hendrick, 1973).

Antill (1983) obtained evidence for the importance of partner femininity for happiness within marital relationships. Couples in which both partners were high on feminine traits appeared to be happier than couples in which one or both partners were low on this aspect. In the earlier stages of the relationship, the female partner's femininity appeared to be vital. However, later on in the marriage, the wife's happiness depends on the male partner's ability and proclivity to be nurturant (Antill, 1983).

In conclusion, in romantic relationships such as marriage, the success of the relationship depends on feminine characteristics of one's partner, which enable him or her to be compassionate, warm and sensitive to their spouse's needs (Antill, 1983). This is consistent with the conclusion drawn by Ickes (1985), who proposes that the sex-role orientations of dyad members have an impact on the personal outcomes of the dyad members in intimate relationships.

Synthesis: Ambivalent Sexism, Contact and Romantic Relationships

The initial idea which motivated this doctoral thesis was that if hostile and benevolent sexism are gender based forms of prejudice, contact could be a means to challenge and reduce sexism. However, after reviewing the relevant literature, this idea appears somewhat naïve. Therefore, I would like to integrate the literature discussed in Chapters 1 and 2 into two models, which will together build the theoretical basis of this thesis.

The first model incorporates the theories discussed in Chapter 1 and is particularly relevant to the empirical studies presented in Chapters 5 and 6. The second model links the first model to the literature on intergroup contact. This thesis operates within four major theoretical frameworks: Ambivalent sexism theory (Glick & Fiske, 1996), intergroup contact theory (Allport, 1954; Pettigrew, 1998), social role theory (Eagly, 1987) and the stereotype content model (Fiske et al., 2002). The current research addresses the question of if and why men's ambivalent sexism changes with the experience of a romantic relationship. With reference to this question, I will investigate the impact of cross-gender contact on ambivalent sexism, patterns of partner preferences based on ambivalent sexist attitudes and the impact of and on contact quality.

Sexism, partner preferences and relationship satisfaction.

This proposal builds on the assumption that individuals are looking for long-term partners who are similar to them in their attitude structure (e.g. Hendrick, Hendrick, & Adler, 1988). Critelli, Myers and Loos (1986) show that traditional and non-traditional couples emphasise different priorities in their relationships. Additionally, research by Fiske et al. (2002) showed that women in traditional roles (e.g. housewives) are perceived as stereotypically warm but incompetent, i.e. possessing traditionally female characteristics. In contrast, women who violate these traditional roles (e.g. feminists, career women) are seen as highly competent but cold. The competence and warmth dimensions as defined by the stereotype content model have been shown to elicit different sets of responses. These findings can be linked to the findings by Critelli et al. (1986), showing that in traditional relationships her respect for him plays a vital role whereas in non-traditional relationships his respect for her is important.

Since being perceived as warm but incompetent elicits benevolent reactions such as helping and protecting, but no respect, I propose that traditional (i.e. sexist) men prefer romantic partners who fulfil the traditional female role. Men high in ambivalent sexism should prefer a partner whom they see as warm but possibly incompetent. With the other, envied and despised female subtype – the cold but competent, non-traditional woman – they might not have the intimate long-term contact which would challenge their sexism. For non-traditional men, respect for their partner is important for their partner preferences and relationship satisfaction (Critelli et al., 1986). Consequently, these men might be looking for a long-term partner whom they can respect. In terms of the stereotype content model this would mean that these men prefer a competent woman. Again, this might reinforce the pre-existing notions about the opposite sex in non-traditional men.

Sexism, partner preferences and cross-gender contact.

The above model implicitly addresses the causal sequence problem discussed by Pettigrew (1998). The partner preference model explicitly proposes the avoidance of certain types of women by highly sexist men. Highly sexist men are assumed to not completely avoid close and intimate contact with women, but are hypothesised to resist engaging in close romantic relationships with women who challenge their sexism.

According to Critelli et al. (1986), in traditional couples, her respect for him is an important component. Warmth perceptions of traditional women usually result from perceptions of intergroup cooperation (cf. Abele, Wojciszke & Baryla, unpublished, cited in Fiske, Cuddy & Glick, 2007; also see Fiske et al. 2007) but the unequal status – as outlined by Hacker (1951) and Jackman and Crane (1986) – remains unaltered.

Cooperation and liking are important conditions for intergroup contact to unfold its positive effects on intergroup attitudes (e.g. Pettigrew, 1998). However, for traditional women, the cross-gender contact is not based on equal status, which can be detrimental to the reduction of intergroup prejudice. Men in close relationships with traditional female partners will not be challenged to reflect on their sexism and are therefore likely to favour the maintenance of the status quo.

As Hacker (1951) points out, the traditional form of marriage can be seen as an intimate relationship of inequality and married men may accept high levels of intimacy with their partner but refuse contact with women on levels of lesser intimacy. A traditional – warm but incompetent – woman will have lower social and personal status than her male partner. Additionally, from a long-term perspective, it appears that the likelihood for happiness and high relationship quality of this traditional relationship is reduced (Ickes, 1993). Consequently, sexist prejudice will not be challenged by men's cross-group contact with women within traditional long-term romantic relationships.

According to the model of partner preference, men low in sexism should be more likely to choose a non-traditional female partner. Consistent with Critelli et al. (1986), in non-traditional relationships the emphasis is on the male partner's respect for the female partner. According to Fiske et al. (2007), respect derives from status, which depends on agentic traits such as competence. Non-traditional women are likely to be perceived as highly competent but cold (e.g. Fiske et al., 2002) and therefore might elicit feelings of competition (Fiske et al., 2007). However, non-traditional females are also likely to be perceived as having high status and are therefore treated with respect. Respect and status equality are important for the reduction of intergroup prejudice (Abele et al., unpublished,

cited in Fiske et al., 2007). However, perceived competition may undermine the reduction of prejudice (e.g. Pettigrew, 1998).

In contrast to traditional couples, Antill (1983) found that non-traditional couples report higher levels of marital satisfaction. Possibly, Bogardus's (1967) idea of marriage indicating the smallest social distance is actually true for non-traditional couples. In addition, partners in non-traditional relationships often establish better communication than non-traditional couples (see Hacker, 1951). Consequently, men low in sexism should be likely to improve their attitudes towards women through positive contact with non-traditional women. However, as these men's sexism levels are low at the outset, the reduction of sexism over time might not be as dramatic.

Research Questions & Thesis Outline

In this thesis, I propose two opposing hypotheses that both can be derived from the reviewed literature. According to the contact hypothesis (e.g. Allport, 1954; Pettigrew, 1997, 1998), positive contact between members of different groups can reduce prejudice. In line with this reasoning, I am testing the hypothesis that cross-gender contact with women will reduce hostile and benevolent sexism in men. This effect should be enhanced if the essential conditions of good quality contact (Allport, 1954) are met (see Pettigrew & Tropp, 2006).

Alternatively, due to sexism influencing partner preferences, sexism may not be challenged by cross-group contact experienced in romantic relationships. The likelihood of high-quality interactions between women and men is highest within heterosexual romantic

relationships (e.g. Hacker, 1951, Maccoby, 1990). However, men may choose their romantic partners based on pre-existing sexist ideologies. Highly sexist men should prefer relationships with traditional women and men low in sexism should prefer relationships with non-traditional women. Given these partner preferences, it should be difficult to improve sexist attitudes through cross-gender contact. Sexist men may maintain their sexism due to the status and power gap between themselves and their (preferred) partner. Non-sexist men's sexism levels may remain stable despite the good quality cross-group contact as their initial sexism levels are low anyway. Thus, this thesis primarily addresses the question of the direction of the causal sequence of the link between ambivalent sexism and cross-gender contact (see Pettigrew, 1998).

The female partner's level of endorsement of the female role is reflected in her perceived warmth and competence. Traditional women are stereotypically perceived as warm but incompetent. In contrast, non-traditional women are stereotypically perceived as competent but cold (e.g. Eckes, 2002). As respect and status depend on the competence dimension, non-traditional women will be considered as higher in status than traditional women. The reduction of sexism through cross-group contact should be possible if men high in sexism are happily and intimately romantically involved with a non-traditional, competent, equal-status woman.

Due to the limits related to conducting postgraduate research, not all of these hypotheses will be tested in this thesis. Chapter 3 presents two studies (Study 1 and 2) which investigate the impact of positive versus negative cross-gender contact on men's ambivalent sexism. These studies will focus on any kind of cross-gender contact and are not restricted to romantic relationships. The relationship context will be considered in

Chapter 4, which investigates the impact of positive versus negative experiences within romantic relationships in two experimental studies (Studies 3 and 4). Chapter 5 includes a pilot study (Study 5), establishing the warmth and competence perceptions of a traditional versus a non-traditional woman. The main study (Study 6) addresses men's partner preferences depending on their pre-existing levels of sexism. In Chapter 6, two studies expand on the findings of Chapter 5 by adding two more dependent variables (Study 7) and intensifying the experimental manipulation (Study 8). Finally, Chapter 7 presents longitudinal data (Study 9). The thesis concludes with a theoretical discussion and integration of the empirical findings in Chapter 8.

Chapter 3:

Challenging Sexism through Contact

Previous research indicates that intergroup contact reduces prejudice. The studies in this chapter explore the potential of cross-gender contact to reduce ambivalent sexism. Study 1 asks male participants to recall either two or six, positive or negative contact experiences with women. Hostile and benevolent sexism are measured, using a repeated measures design. Contrary to the hypotheses, sexism levels are not affected by contact recall. Study 2 investigates the link between contact quality, salience of contact, valence of contact and ambivalent sexism for male participants. The results provide no evidence that contact quality, salience, valence or their interaction terms impact on ambivalent sexism.

Introduction

As emphasised in Chapter 2, contact quality is important for a successful reduction of intergroup prejudice and hostility. Most of the discussion in Chapter 2 focused on positive aspects of intergroup contact. However, Allport (1954) points out the dangers of superficial contact. The studies reported in this chapter will investigate the differential impact of positive and negative cross-group encounters between women and men in everyday life.

The impact of negative intergroup contact has not been as widely discussed as the importance of positive intergroup encounters. However, some theorising and empirical evidence is available to discuss the impact of intergroup contact of different valence (positive versus negative). Amir (1969) argues that prejudice and intergroup tension are likely to increase if the contact conditions are unfavourable in a way that they include competition or the contact is perceived as unpleasant or involuntary. Stephan and Stephan (2000) present an integrated intergroup threat model and propose that negative contact predicts feelings of threat whereas positive contact is able to reduce the perceived threat. Hence, Stephan and Stephan (2000) argue that it is only under some conditions that intergroup contact has the ability to reduce prejudice. Furthermore, the greater the frequency of positive contacts (in the sense of Allport, 1954) relative to negative contacts (e.g. disagreements, fights, unpleasant intergroup activities) the lower the perceived intergroup threat. However, if the frequency of negative contact is high, more threat will be perceived. Stephan and Stephan (2000) conclude that the experience of predominantly negative intergroup encounters in the past is likely to result in feelings of threat concerning the prospect of future contacts with members of the outgroup.

In three studies, Stephan, Stephan, Demitrakis, Yamada and Clason (2000) investigated antecedents of women's attitudes towards men based on the integrated threat model. It was hypothesised that negative contact increases the perceptions of threat and has a direct impact on female participants' attitudes towards men. Stephan et al. (2000) measured negative contact by specifically asking for the amount of past negative contact their female participants had with men. The participants indicated their negative attitudes by specifying to which degree they felt twelve evaluative or emotional reactions towards men. Overall, the female participants' attitudes and stereotypes of men tended to be slightly positive. However, negative contact with men was shown to be important for the female participants' attitudes. Stephan et al. (2000) conclude that negative contact with men leads to less positive attitudes and increases the perception of symbolic threat. In summary, Stephan et al.'s (2000) data provide evidence that women who had many negative experiences with men tend to like men less than other women. Stephan, Boniecki, Ybarra, Bettencourt, Ervin, Jackson, McNatt and Renfro (2002) found similar results for racial attitudes in Black and White participants and conclude that negative experiences with outgroup members have strong direct and indirect effects on negative attitudes.

The impact of positive contact on intergroup attitudes was tested on seven national probability samples by Pettigrew (1997). The target outgroups were six diverse minorities in Western Europe. Pettigrew (1997) used non-recursive structural models to assess the relative strengths of the two possible causal paths (i.e. contact reducing prejudice versus prejudice reducing contact). Pettigrew (1997) found that both possible paths are important, however, the path assuming that positive contact reduces prejudice was stronger than the reverse path (with the exception of the German data). The data also suggested a cumulative

process involving intergroup friendship and prejudice: Whereas intergroup friendship reduced prejudice, reduced prejudice also increased the likelihood of further intergroup friendship. Nonetheless, Pettigrew (1997) emphasises the importance of longitudinal and experimental tests that focus on affective and cognitive mediators of intergroup contact effects.

Ease of Retrieval

Study 1 will adopt the ease of retrieval paradigm by Schwarz, Bless, Strack, Klumpp, Rittenauer-Schattka and Simons (1991). Schwarz et al. (1991) empirically disentangled the impact of the content of recall and the subjective experience of ease or difficulty of recall. They introduced conditions under which the implications of experienced ease of recall were opposite to the implications of the recalled memory content. All three studies by Schwarz et al. (1991) supported this assumption: The implications of the recalled content were qualified by the difficulty or ease with which the content can be brought to mind.

Schwarz et al. (1991) requested participants to recall six versus twelve examples of assertive behaviour. The more examples participants were asked to generate, the less these participants perceived themselves as being assertive. Thus, Schwarz et al. (1991) conclude that people not only pay attention to the recalled content but also seem to rely on their subjective experiences of ease or difficulty of recall when they are drawing inferences from the recalled content. Thus, participants seemed to conclude that they cannot be assertive if it is rather difficult to recall the requested number of examples of assertive behaviour. It, therefore, appears that if the recall of a large number of examples is sufficiently difficult, participants tend to draw conclusions that are opposite of the implications of the content of

recall. Difficulty in recall decreases judgements of frequency, probability or typicality of certain events (Schwarz et al., 1991).

Dijksterhuis, Macrae and Haddock (1999) extended this work by testing the effects of subjective ease of retrieval on person perception. Participants were classified into low versus intermediate versus high in prejudice based on their scores on the modern sexism scale (Swim et al., 1995). Participants then listed three versus eight traits on which women and men supposedly differ. The dependent variable in this study was the stereotypicality of participants' impressions of a female secretary. The results showed that the stereotypicality of the secretary as described by the participants did not differ as a function of participants' initial prejudice levels among the participants who were asked to generate three stereotypical traits. However, among participants who were asked to list eight stereotypical traits, participants holding low and intermediate levels of modern sexism produced less stereotypical portrayals of the secretary than participants who scored high in modern sexism. Dijksterhuis et al. (1999) thus provide evidence for the effects of experiential factors on social judgement.

The present research.

In this chapter I will present two studies which aim to link the literature on ambivalent sexism to the contact hypothesis. The second aim is to address the direction of the causal sequence of the contact – prejudice link. Several authors (e.g. Pettigrew, 1997; Stephan et al., 2002) discuss the lack of unambiguous evidence for the direction of causality in the relationship between intergroup contact and prejudice. Following the propositions by Stephan and Stephan (2000) and Stephan et al. (2000, 2002), positive as well as negative

experiences with women by men will be taken into account in Studies 1 and 2. Moreover, extending Stephan et al.'s (2000) research, hostile and benevolent sexism will be taken into account as distinct attitudes to assess participants' levels of sexist gender ideology.

Research has shown that individuals who anonymously participate in psychological research via the World Wide Web indicate significantly lower social desirability scores than participants completing questionnaires with pencil and paper (Joinson, 1999; Richman, Kiesler, Weisband & Drasgow, 1999). Web-based tests were also found to have better psychometric properties (Buchanan & Smith, 1999). A meta-analysis by Feigelson and Dwight (2000) revealed that respondents reported more sensitive information under computerised conditions than under traditional assessment methods. These researchers argue that computers may promote an increased feeling of anonymity and have the advantage that participants do not need to hand over their responses to another individual and therefore, do not need to fear negative evaluation. For that reason, Feigelson and Dwight (2000) recommend data collection by computer whenever sensitive information is obtained. Given these positive characteristics ascribed to online research, data collection was carried out under anonymous conditions online.

Study 1

Study 1 integrates the findings on the effects of positive versus negative intergroup contact on intergroup attitudes (Stephan et al., 2000, 2002) with the ease of retrieval paradigm (Schwarz et al., 1991). Participants were asked to recall either positive or negative past contact with women. It is hypothesised that men's sexist attitudes should improve (i.e. sexism should be reduced) after remembering two positive or six negative

examples of contact with women in the past. However, men's sexist attitudes should increase when participants are requested to remember six positive or two negative examples of contact with women. These predictions should be especially true for the case of hostile sexism, as hostile sexism fits the widely accepted notion of prejudice as antipathy (e.g. Allport, 1954). In contrast, it is more difficult to predict the contact – prejudice link for benevolent sexism, as benevolent sexism does not fit standard notions of prejudice (e.g. Glick & Hilt, 2000) due to its positive feeling tone for the perceiver (Glick & Fiske, 1996). Generally, participants should rate remembering two examples of contact with women as easier than remembering six contact examples.

Method

Participants.

Two-hundred and twenty-seven men participated in this study online. The average age of participants was 23.93 years (*SD* = 8.08), with age ranging between 17 and 63 years. Seventy-four percent of the participants indicated that they were of Caucasian ethnicity, 12% were Black and 12% belonged to an ethnicity other than Caucasian or Black, 2% chose not to answer this question. Fifty-nine percent indicated that they were American, 17% were British, 4% were Canadian and the remaining 20% belonged to a range of other countries across the world. Fifty-five percent of the sample were of Christian faith, 23% had no religion or were Atheists, 4% were Agnostics, 8% belonged to other religious faiths and 10% chose not to answer this question. Within the sample, 71% were students, 23% were employed and 6% were self-employed, unemployed or retired. About 60% of the sample were single at the time of data collection, 24% were currently in a romantic relationship but not married, 13% were married and the remaining 3% were either

separated, divorced or chose the "other" answering option. Eleven percent of the sample reported that they had children and 77% indicated that English was their first language.

Design.

The study featured a repeated measures design, including four experimental and one control condition ($N = 45$). In the four experimental conditions, participants were asked to list either 2 positive ($N = 44$), 6 positive ($N = 46$), 2 negative ($N = 46$) or 6 negative ($N = 46$) contacts with women within the last 12 months. Hostile and benevolent sexism were measured before and after participants provided the requested number of examples. For that purpose the HS and BS subscales were split into two subscales each, consisting of five or six items respectively[1].The order of items for the HS and BS subscales was counterbalanced, resulting in a total of 10 conditions. In the experimental conditions, participants received the following instructions:

"Please briefly describe two (six) situations in which you had positive (negative) contact with women in the last year. For example: "Went to the cinema with Barbara." ("Had an argument with Barbara") or "Had a coffee and a nice chat with Laura." ("Laura was snotty and arrogant"). Please use the spaces provided below and try to mention contacts with different persons. Furthermore, it is essential for our research that you provide as many examples as you've been asked for."

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[1] Sibley and Wilson (2010) report acceptable to good reliabilities using shortened six-item versions of the hostile and benevolent subscales of the ASI. Using a validation sample of 108 male undergraduate students from Thomae's (2003) MSc research, I used a composite of the shortened five- and six-item HS and BS scales to assess the correlations with the full 11-item HS and BS measures. Both shortened versions of the HS subscale correlated highly positively with the full 11-item HS scale (r (106) = .94 & r (106) = .95, both $ps < .001$). The equivalent analyses for the shortened BS subscales yielded similarly high positive correlations with the full 11-items BS scale (r (106) = .90 & r (106) = .93, both $ps < .001$). These results indicate that the shortened measures of benevolent and hostile sexism used in this research provide relatively accurate indicators of the two constructs.

In the control condition, participants only completed the ASI without reporting encounters with women. As has been stated above, the order of the pre- and post-test items was counterbalanced.

Measures.

The main measure was the Ambivalent Sexism Inventory (ASI; Glick & Fiske, 1996), which consists of a hostile (HS) and a benevolent sexism (BS) subscale containing 11 items each. The two concepts of hostile and benevolent sexism tap into different facets of traditional gender ideologies, with HS referring to traditional sexist beliefs conceptualised as prejudice based on gender, implying a negative and hostile evaluation of women (Glick & Fiske, 1996). An example item is *"When women lose to men in a fair competition, they typically complain about being discriminated against"*. Benevolent sexism in contrast refers to a subjectively positive attitude towards women on behalf of the perceiver of this attitude. However, BS has been conceptualised as a form of gender prejudice as it justifies the notion of female inferiority in comparison to men and puts women at a disadvantage not merited to their own conduct (Glick & Fiske, 1996; Glick & Hilt, 2000). An example item is *"Women should be cherished and protected by men"*. The ASI uses a 7-point Likert-type scale, ranging from -3 (strongly disagree) to 3 (strongly agree).

In order to examine the effectiveness of the experimental manipulation, a one-item measure was included to assess how difficult participants found it to retrieve the number of examples of contact with women from their memory. This item read: *"Now, please rate how difficult it was for you to generate two (six) examples of positive (negative) contact with women"* and was adapted from Schwarz et al. (1991). Participants rated the difficulty

on a 10-point Likert-type scale, ranging from 1 (not at all difficult) to 10 (very difficult).

For further control, an item was included assessing the number of examples participants provided. The wording of this item was *"How many examples did you manage to come up with?"* and was included as pilot research provided evidence that participants did not always follow the instructions and often provided less examples than requested. Participants indicated their answer on a 7-point nominal scale, ranging from 0 (no examples) to 6 (6 examples).

Procedure.

Data collection was conducted via the World Wide Web in October 2006. The study was advertised via the undergraduate mailing lists at the School of Psychology, University of Kent at Canterbury, the University of Kent official website, and various Internet research platforms such as the "Psychological Research on the Web" platform run by John H. Krantz from Hanover College and "The Web Experiment List" run by Ulf-Dietrich Reips from the University of Zurich. Participants clicked the link to the study and were randomly assigned to one of the conditions. After filling in the demographic information, they were told that they were now to complete a questionnaire about men and women and their relationships in contemporary society. This statement was followed by the first set of items of the ASI in the four experimental conditions. In the control condition, participants filled in the complete ASI followed by the debriefing information. However, in the experimental conditions, participants were asked to remember 2 (6) positive (negative) contacts with women they had during the past 12 months. In order to improve this experimental manipulation, participants were provided with text boxes and encouraged to write down the

contact situations they remembered. As a manipulation check, participants indicated how difficult they found this task and how many examples they had managed to remember. Then the second half of the ASI was administered, followed by written debriefing.

Results

Preliminary analyses.

Cronbach's alpha indicated acceptable internal consistencies for the HS and the BS scale of the ASI (HS: $\alpha = .91$, BS: $\alpha = .89$). The mean of the HS subscale was 0.29 ($SD = 1.21$) and the mean of the BS subscale was 0.12 ($SD = 1.26$), indicating that the means of both subscales were to some extent above the midpoint of the scale. Therefore, composite scores of the pre-test items and of the post-test items for HS and BS were calculated for each participant by averaging the relevant items. A correlation analysis yielded a significant positive correlation ($r(225) = .57, p < .001$) between HS and BS. For the purpose of the subsequent main analyses, difference scores were calculated by subtracting the hostile sexism scores of the pre-test (HS1) from the hostile sexism scores of the post-test (HS2) and the benevolent sexism scores of the pre-test (BS1) from the benevolent sexism scores of the post-test (BS2).

Manipulation check.

The control item assessing the number of examples participants generated indicated that 59 participants (26%) did not follow the instructions and generated either more or less contact examples than requested by the study procedure in their respective experimental

condition. These participants were excluded from further analyses[2].

To assess the effectiveness of the experimental manipulation, an ANOVA with condition as independent factor tested whether participants' difficulty ratings differed across experimental conditions. There was a significant main effect of condition (F (3, 116) = 12.00, $p < .001$, $\eta^2 = .24$) on perceived difficulty. Post hoc tests using the Scheffé post hoc criterion revealed that the manipulation used in this study did not work in the predicted way. There were significant mean differences between the 2 positive ($M = 3.95$, $SD = 2.86$) and the 6 positive ($M = 2.95$, $SD = 2.28$) versus the 2 negative ($M = 6.26$, $SD = 3.11$) and the 6 negative ($M = 6.19$, $SD = 2.76$) conditions, indicating an effect of valence of encounter[3] rather than an effect of number of examples. This result shows that participants perceived remembering positive contact significantly easier than remembering negative contact. The differences between the two and the six positive examples difficulty ratings was not significant ($\Delta M = 1.00$, $p = .617$), neither was the difference between the two and the six negative examples difficulty ratings ($\Delta M = -.07$, $p = 1.000$).

Main analyses.

Despite these manipulation check results, the HS and BS difference scores were subjected to an ANOVA. A positive difference score would indicate an increase of HS and BS in the post-test compared to the pre-test, since the pre-test scores were subtracted from

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[2] Analyses run on the full sample yielded a similar pattern of results to the analyses presented here.
[3] Interestingly, this finding is consistent with a different line of research and theorising (e.g. Holmes, 1970; Taylor, 1991; Walker, Skowronski & Thompson, 2003). Walker et al. (2003) for example review literature on the persistence of positive rather than negative memories and affect. They conclude that people perceive events in their lives pleasant rather than unpleasant. In addition the fading affect bias states that affect associated with unpleasant events fades faster than affect associated with pleasant events. Walker et al. (2003) conclude that in terms of autobiographical memory, good is stronger than bad.

the post-test scores. A negative difference score would indicate a decrease of HS and BS following the experimental manipulation. In the analysis, condition was the between-subjects factor.

There was no effect of experimental condition on the difference score for HS (F (4, 157) = 0.29, p = .883, η^2 = .01). The HS difference scores did not differ significantly between experimental conditions. Table 1 presents the means and standard deviations of HS within each experimental condition. Given that the ANOVA model was not significant, none of the post hoc tests using the Scheffé post hoc criterion reached significance either.

The ANOVA on the BS difference score using condition as a between-subjects factor was also non-significant (F (4, 157) = 0.62, p = .647, η^2 = .02). Again, post hoc tests using the Scheffé post hoc criterion yielded no significant mean differences between the four means. For a more detailed pattern of results, please see Table 1.

Table 1

Means and standard deviations for hostile and benevolent sexism difference scores

	Condition				
	6 negative (N = 31)	2 negative (N = 27)	control (N = 45)	2 positive (N = 20)	6 positive (N = 39)
HS2-HS1	0.17 (0.69)	0.09 (1.07)	0.08 (0.71)	0.14 (0.73)	-0.02 (0.70)
BS2-BS1	-0.17 (0.78)	0.14 (0.87)	0.02 (0.86)	-0.14 (0.54)	0.01 (0.85)

Note. Standard deviations are in parentheses.

Discussion

The main analyses of Study 1 did not yield any significant effects of remembering positive or negative contact with women on participants' levels of hostile and benevolent sexism. A closer look at the manipulation check reveals two possible reasons for these results: In the original sample, a number of participants did not follow the instructions. It appears that if the task was too hard (6 examples) some participants quit and did not make the necessary effort to generate the required number of examples. When the task appeared too easy, some participants continued and generated more examples than requested. Hence, these participants had to be excluded from the main analyses and therefore, statistical power was reduced. However, conducting the same analyses on all participants irrespective of whether they obeyed the experimental instructions did not yield significant results either.

Furthermore, the manipulation check revealed a significant difference in perceived difficulty depending on the valence (positive or negative) of the contact participants were asked to remember. Overall, it appears that – irrespective of the requested number of examples – participants found it significantly more difficult to remember negative in contrast to positive contact with women. On the contrary, participants did not seem to find it more difficult to generate a higher as compared to a lower number of examples, which is a vital prerequisite of the ease of retrieval manipulation. Thus, it is not surprising that the main analyses comparing the reduction or increase of hostile and benevolent depending on content and ease of recall of the requested examples did not yield significant differences. It was therefore regarded as necessary to simplify the experimental design used in Study 1 in Study 2.

Study 2

Study 1 aimed to present evidence for the applicability of the contact hypothesis to combat ambivalent sexism and to establish the causal direction of the contact – sexism relationship. However, Study 1 had limited success in achieving its goal. The design of Study 1 was rather complex and was based on theoretical assumptions, such as the ease of retrieval paradigm. Thus, a different research strategy was used in Study 2 to address the above two questions regarding the contact – sexism link.

Schwarz and Strack (1981) suggest a strategy to establish the direction of causality when it is not possible to manipulate the independent variable or to control confounded variables statistically. Schwarz and Strack (1981) argue that variables in natural settings are often tied together so closely that it is difficult to isolate their effects. As a result, problems arise for the causal interpretation of empirical data. However, it is possible to manipulate the salience of the variable that is hypothesised to exert causal influence on the dependent variable. According to Schwarz and Strack (1981), the procedure allows for conclusions that one of the possible causal factors is more likely to be the cause of the effect than vice versa. The paradigm is based on the idea that whatever participants are exposed to first in – for example – a questionnaire study becomes salient for them. Thus, causal assumptions can be tested by manipulating the content that is salient in the mindset of the participants.

For example Bohner, Reinhard, Rutz, Sturm, Kerschbaum and Effler (1998) applied this paradigm in two studies in order to establish the direction of the causal link between rape myth acceptance and the inclination to use sexual violence against women. In order to implement the Schwarz and Strack (1981) paradigm, Bohner et al. (1998) assigned the

participants randomly to two conditions: In one condition (high salience), participants were exposed to the rape myth acceptance scale first before completing the rape proclivity measure. In the second condition (low salience), the order of these two measures was reversed. Bohner et al. (1998) hypothesised that the correlation between rape myth acceptance and rape proclivity is significantly stronger in the high salience as compared to the low salience condition. This prediction was supported and Bohner et al. (1998) conclude that the causal path between rape myths and rape proclivity runs in the direction that rape myths provide the causal foundation for men's self-reported rape proclivity.

Bohner, Jarvis, Eyssel and Siebler (2005) extended this paradigm and found that the correlation between rape myth acceptance and rape proclivity was significantly higher in the high salience condition as compared to the low salience condition. Furthermore, the results showed that the correlation between rape myth acceptance and rape proclivity was higher for sexually coercive men as compared to non-coercive men. In summary, Bohner et al.'s (2005) findings underline the interplay between temporary and chronic accessibility of rape myth acceptance and its causal influence on sexually coercive behaviour. Together with the findings by Bohner et al. (1998), Bohner et al. (2005) thus provide examples for the successful implementation of the research strategy proposed by Schwarz and Strack (1981).

The present research

Chapter 2 argued for the importance of contact quality. If intergroup contact situations meet the proposed positive conditions (e.g. Allport, 1954), the likelihood of reduced intergroup prejudice and attitude improvement is heightened (Pettigrew & Tropp, 2006).

Therefore, Study 2 will include a measure of contact quality (Islam & Hewstone, 1993). This measure taps into the aspects of equal status, experienced intimacy, pleasantness, the degree of cooperation and the voluntary nature of the intergroup encounter. Thus, it covers the essential contact conditions proposed by Allport (1954). To keep consistent with the argument in Study 1 and the introduction (Stephan et al., 2000, 2002; Pettigrew, 1997), the valence of the contact will be included in the design. Thus, Study 2 will ask participants to either refer to a positive or a negative contact experience in the past.

Study 2 will investigate whether there is a relationship between cross-gender contact quality and ambivalent sexism. I hypothesise that there is a significant negative relationship between cross-gender contact quality and participants' ambivalent sexism. This relationship should be particularly true for hostile sexism. Since benevolent sexism is not a prototypical form of prejudice, no specific prediction is made. According to the procedure by Schwarz and Strack (1981), the negative relationship between contact quality and sexism should be stronger when contact quality is measured before sexism and weaker when contact quality is measured after sexism. This pattern of results would imply that the quality of cross-group gender contact exerts a causal influence on men's sexism levels and would shed light on the causal sequence problem as posed by Pettigrew (1997, 1998). In addition, contact quality should be rated higher by participants who remember a positive contact experience in comparison to participants who remember a negative contact experience and sexism levels should be particularly low for participants in the high contact quality salience, positive valence condition.

Method

Participants.

Sixty-six male participants contributed to this study online, with an average age of 24.82 years (*SD* = 7.90), ranging from 16 to 47 years and 77% of participants being 29 years old or younger. Eighty-five percent of participants classified themselves as Caucasian; the remaining participants were of Hispanic, Black and Asian descent. About 48% of participants were American, 34% were from the UK, and the remaining 18% came from a variety of different countries across the world. Seventy-one percent of the sample were Christians, 18% reported being either Atheist or not religious, 3% were Agnostics and 8% of participants belonged to a variety of other religious faiths. Sixty-eight percent were students and 29% were employed; the remaining 3% represent two individuals of whom one was unemployed and the other chose the "other" option. With respect to relationship status, 62% of participants reported being single at the time of data collection, 24% reported living in a relationship but not being married. Nine percent of participants were married and the remaining 5% reported being divorced. Nine percent of the participants reported having children. Eighty-five percent of participants spoke English as their native language.

Design.

The study featured a 2x2 (salience of contact: high vs. low and valence of contact: positive vs. negative) between subjects experimental design. The dependent variable was the strength of correlation between the sexism measures and the contact quality measure. This procedure is suggested by Schwarz and Strack (1981) if the causal direction of a

relationship needs to be established but neither of the variables can be experimentally manipulated.

Materials.

The Ambivalent Sexism Inventory (ASI; Glick & Fiske, 1996) was used to assess participants' levels of hostile and benevolent sexism. Participants indicated their agreement to the ASI items as in Study 1.

Participants also completed the Qualitative Aspects of Contact (QAC) scale by Islam and Hewstone (1993). This scale consists of five items and the scale format is a 7-point Likert type scale ranging from 1 to 7. As the verbal scale anchors differ between the items, a full version of the scale is attached in Appendix A. Example items are *"In the situation you just described, did you perceive the contact as being equal?"*, *"...as pleasant?"* and *"...as competitive or cooperative?"*. As in Islam and Hewstone (1993), for all items higher scores indicated higher levels of contact quality.

Procedure.

The study was accessible via a hyperlink, which was sent to student mailing lists by email or was posted on different online research platforms. Once participants accessed the experiment's website, they were informed that this was a survey investigating experiences with and attitudes towards one's own and the opposite sex. Participants provided their demographic details and started the actual study by giving an example of positive or negative contact with women and rating the perceived quality of the encounter they just described. Participants then completed the ASI. Participants following this procedure were

considered to be in the high salience of contact condition. In the low salience condition, participants completed the ASI first and were then asked to describe an encounter with women and fill in the QAC with respect to the example they had given. Once participants had completed all relevant scales, they were transferred to the next screen where they were thanked for their participation and debriefed and the contact details of the researcher were given.

Results

Preliminary analyses.

A principal component analysis on the QAC (Islam & Hewstone, 1993), using the criterion of Eigenvalues > 1, yielded one component for all five QAC items. Appendix A contains the correlation matrix, the table of Eigenvalues and the table with the component matrix. The factor loadings ranged between .63 and .84. The finding that all five items loaded on one factor is in line with the predictions and with the assumptions made by Islam and Hewstone (1993). The mean of the HS subscale was 0.27 (*SD* = 1.34) and the mean of the BS subscale was 0.18 (*SD* = 1.16), indicating that both means were slightly above the midpoint of the scale. Cronbach's alpha was acceptable for all scales (HS: $\alpha = .92$, BS: $\alpha = .85$, QAC: $\alpha = .84$). Therefore, composite scores for each of the measures were computed for each participant by averaging the items belonging to the respective scale.

A multivariate analysis of variance was conducted on the HS, BS and QAC scores in order to establish whether the mean scores for these three variables differed significantly between the two conditions. For HS, there was no significant main effect on condition (F (3, 62) = 0.79, $p = .540$, $\eta^2 = .04$). Consequently, the Scheffé post hoc criterion did not

indicate any differences in the means of HS between the four conditions. A similar result was obtained for BS (F (3, 62) = 1.00, $p = .401$, $\eta^2 = .05$). Again, the Scheffé test did not show any significant differences in BS across conditions. For QAC, there was a significant main effect of condition (F (3, 62) = 4.88, $p = .004$, $\eta^2 = .19$). Scheffé post hoc tests indicated that this effect was in the expected direction: The quality of the cross-group encounter was rated significantly higher in the high salience condition referring to a positive example (M = 5.77, SD = 0.95) than in the high salience condition referring to a negative example (M = 4.04, SD = 1.23). In contrast, within the two low salience conditions, the quality of contact referring to a positive example (M = 5.36, SD = 1.04) did not differ from the quality of contact referring to a negative example (M = 4.70, SD = 1.88).

Correlation analyses on the full sample yielded a significant zero-order correlation between HS and BS ($p < .01$; see Table 2). This correlation is consistent with previous research (e.g. Glick & Fiske, 1996).

Table 2

Correlations among HS, BS and QAC (N = 66)

	HS	BS	QAC
HS	-		
BS	.63**	-	
QAC	-.17**	-.07	-

Note. ** = Correlation is significant at $p < .01$ (2-tailed).

Main analysis.

Two hierarchical regression analyses investigated whether salience and valence of contact quality had an impact on participants' levels of sexism. HS was first analysed, followed by BS. In both analyses, the ratings of the contact quality, contact salience and contact valence were entered in the regression equation in the first step. All two-way interaction terms were entered in the second step (Salience x Valence, Salience x QAC, and Valence x QAC). In the last step, the three-way interaction term between Salience, Valence and QAC was entered into the equation.

For HS, none of the predictors reached significance but there was a marginally significant negative relationship between HS and QAC. However, the impact of salience by itself is close to zero, whereas contact valence seems to be slightly more important. In addition, none of the interaction terms reached significance. An overview of the results can be seen in Table 3. Simple slopes analyses were not conducted since none of the interaction terms was significant.

The same analysis was conducted for BS, yielding a negative relationship between contact quality and BS. However, this relationship is much weaker than for HS and not significant. Neither contact salience nor valence exerted a significant impact on BS. None of the interaction terms (two- and three-way) reaches significance. Thus, no simple slopes analyses were conducted. The regression results for BS are shown in Table 4.

Table 3

Regression analysis of the effects of QAC, salience and valence on HS (N = 66)

Regression Step		*B*	*SE B*	β	*T*	*p*
Step 1	$R^2 = .06$					
	QAC	-0.22	0.12	-.24	-1.81	.075
	Salience	-0.04	0.36	-.01	-0.10	.920
	Valence	0.26	0.20	.19	1.33	.190
Step 2	$\Delta R^2 = .02$					
	QAC	0.00	0.48	.00	0.01	.995
	Salience	-0.06	0.38	-.02	-0.16	.872
	Valence	0.71	0.64	.54	1.12	.269
	Salience x Valence	-0.28	0.43	-.33	-0.65	.521
	QAC x Salience	-0.16	0.31	-.27	-0.51	.612
	QAC x Valence	-0.02	0.17	-.02	-0.14	.893
Step 3	$\Delta R^2 = .01$					
	QAC	-0.15	0.54	-.16	-0.27	.787
	Salience	-0.17	0.43	-.07	-0.41	.686
	Valence	0.73	0.65	.55	1.13	.265
	Salience x Valence	-0.27	0.43	-.32	-0.62	.538
	QAC x Salience	-0.09	0.34	-.16	-0.28	.782
	QAC x Valence	-0.33	0.54	-.33	-0.60	.550
	QAC x Salience x Valence	0.20	0.34	.29	0.59	.558

Table 4

Regression analysis of the effects of QAC, salience y and valence on BS (N = 66)

Regression Step		*B*	*SE B*	β	*T*	*p*
Step 1	R^2 = .06					
	QAC	-0.13	0.10	-.16	-1.22	.227
	Salience	0.18	0.31	.08	0.59	.556
	Valence	0.51	0.33	.22	1.54	.130
Step 2	ΔR^2 = .05					
	QAC	0.05	0.40	.06	0.12	.903
	Salience	0.22	0.32	.10	0.69	.492
	Valence	0.49	1.08	.22	0.46	.649
	Salience x Valence	0.05	0.36	.07	0.14	.887
	QAC x Salience	-0.18	0.26	-.35	-0.69	.494
	QAC x Valence	-0.14	0.14	-.17	-1.03	.310
Step 3	ΔR^2 = .02					
	QAC	-0.16	0.45	-.21	-0.36	.718
	Salience	0.06	0.36	.03	0.17	.865
	Valence	0.53	1.08	.23	0.49	.628
	Salience x Valence	0.07	0.36	.09	0.18	.857
	QAC x Salience	-0.09	0.28	-.17	-0.31	.759
	QAC x Valence	-0.58	0.45	-.68	-1.27	.209
	QAC x Salience x Valence	0.28	0.28	.49	1.00	.320

Discussion

Study 2 did not produce the expected results. There was a marginally significant negative link between hostile sexism and contact quality, indicating that the lower the rating of the contact quality was, the higher were levels of hostile sexism. For benevolent sexism, none of the predictors reached significance. With regard to the research questions posed above, none of the interaction terms reached significance. The interaction effect between the salience and the contact quality was of particular interest. This specific interaction term would have been an important indicator for the causal sequence of the relationship between ambivalent sexism and cross-group contact. For both dependent variables this interaction term was non-significant. Hence, the data in Study 2 do not allow for any conclusions regarding the causal direction of the prejudice – contact relationship.

General Discussion

The current chapter aimed to provide evidence for an empirical link between ambivalent sexism and cross-gender contact and the direction of the causality of this link. This would have added to the existing literature on sexism as well as to the literature on intergroup contact as - to the author's knowledge - to date no published research has investigated this possibility. The studies reported in this chapter provide no support for the hypotheses. Study 1 did not yield significant changes in men's hostile or benevolent sexism after remembering positive or negative cross-group contact with women. As discussed above, this might be a result of methodological problems inherent in the procedure applied in Study 1. Study 2 adopted a different and simplified design and emphasised cross-group contact quality. Even though the direction of causality could not be established in Study 2,

this study provided some evidence for a link between hostile sexism and the contact quality. However, this link was only marginally significant.

The lack of significant findings in this chapter contrasts with previous research findings. For example, Stephan et al. (2000) found that negative contact with men lead to less positive attitudes towards men in women. Furthermore, the research by Dijksterhuis et al. (1999) featured the stereotypicality of participants' impressions of a female secretary as the dependent variable and Blair, Ma and Lenton (2001) assessed the impact of mental imagery on implicit gender stereotypes using the Implicit Association Test (IAT). However, none of these studies measured changes in ambivalent sexism following experimental interventions.

Chris Sibley and colleagues (Sibley, Overall & Duckitt, 2007a; Sibley, Overall, Duckitt, Perry, Milfont, Khan, Fischer & Robertson, 2009; Sibley & Perry, 2010, Sibley, Wilson & Duckitt, 2007b) provide evidence that hostile and benevolent sexism are relatively stable throughout time periods ranging between four months and 12 months. For example, Sibley et al. (2007b, Study 3) found that in a small sample of men, BS at Time 1 correlated $r = .79$ with BS at Time 2 (5 months later), whereas HS at Time 1 correlated with HS at Time 2 with $r = .77$ over the same time interval. Thus, the research by Sibley and colleagues provides repeated evidence for the stability of HS and BS over time. Hence, it might be possible that – despite their definition as forms of prejudice – HS and BS possess features that are more similar to personality traits rather than to attitudes, which makes them more resistant to change.

Glick et al. (1997) further argue that ambivalent sexists habitually classify women into polarised subgroups, despising some women considered as "bad" and loving "good" ones. According to ambivalent sexism theory, ambivalent sexist men do not generally dislike

women but only those who "deserve it" (Glick et al., 1997). Furthermore, the favourable feelings ambivalent sexists have towards "good women" help to rationalise and deny the existence of prejudice against women. Glick et al. (1997) point out that it is this feature of ambivalent sexism that makes sexism particularly difficult to combat. Alternatively, the findings in the current chapter along with the findings by Sibley and colleagues (e.g. Sibley et al., 2009) might indicate that men as the dominant/more powerful group endeavour to maintain their position over women as the less powerful group (see Sidanius & Pratto, 1999). As Jackman (1994) points out with regard to race, gender and class relations, the dominant group has an interest in maintaining the unequal status quo, which is often supported by the subordinate group (see Jost, Banaji & Nosek, 2004). Thus, with benevolent and hostile sexism functioning as ideological carrot and stick to maintain the status quo in gender relations (e.g. Lee, Fiske & Glick, 2010a), challenging these attitudes might prove difficult.

In Chapter 2, I discussed empirical evidence that the highest likelihood of cross-gender contact is given within heterosexual romantic relationships (e.g. Hacker, 1951, Maccoby, 1990). Bukowski et al. (1993) and Maccoby (1990) discuss same-sex preferences in children and early adolescents. These childhood preferences appear to manifest in spatial and role segregation (e.g. Jackman, 1994) later in life, for example, in the workplace (Pratto et al., 1997; Reskin, 1984). However, women and men depend on each other for romantic relationships and reproduction (e.g. Glick & Fiske, 1996; 2001a) and appear to willingly engage in this type of contact (Office for National Statistics, 2001; US Census Bureau, 2000). The studies to be reported in Chapter 4 will focus on the impact of cross-gender contact on men's ambivalent sexism specifically in the context of romantic relationships.

Chapter 4:

Contact and Ambivalent Sexism in Romantic Relationships

Chapter 4 focuses on heterosexual romantic relationships as a venue in which cross-gender contact is most likely to occur. The chapter reports two studies (Studies 3 & 4) that were conducted to investigate whether contact between women and men in heterosexual romantic relationships reduces men's ambivalent sexism. Study 3, like Study 2, used the salience manipulation paradigm by Schwarz and Strack (1981). Similar to Study 2, Study 3 found HS but not BS to be correlated with contact quality. However, there is no suggestion of the direction of causality in which this link operates. Study 4 used a simplified version of the design introduced in Study 1 but provided no evidence that cross-gender contact reduces sexism in heterosexual men.

Introduction

Chapter 1 compared racial and gender prejudice and concluded that the gender context is different from racial contexts. This is primarily due to the nature of close relationships across group boundaries. Fiske and Stevens (1993) argue that close relationships across gender groups are the standard rather than the exception. Women and men have frequent contact with members of the opposite sex. However, gender prejudice and discrimination are prevalent (see Fiske & Stevens, 1993; Jackman, 1994). Chapter 3 reports two studies that investigated the link between cross-group contact and men's levels of ambivalent sexism. While Study 1 yielded non-significant effects of contact, Study 2 provided evidence of a negative relationship between contact quality and hostile sexism. However, despite attempts to address the causal sequence problem (e.g. Pettigrew, 1998), the direction of causality between contact and sexism remains unclear. Chapter 4 will argue that the sexes are highly segregated apart from contact within romantic relationships. Hence, if romance is the major arena for cross-gender contact, focusing on intimate relationships might help to clarify the contact – prejudice relationship.

Gender Segregation

Some authors argue that the highest likelihood of high-quality interactions between the sexes is given within heterosexual romantic relationships (e.g. Hacker, 1951). Women probably interact with members of their own group (women) with the same frequency as with members of the outgroup (men; Hacker, 1951). However, Hacker (1951) questions the diagnostic value of the social distance concept in the gender context. Social distance measures (e.g. Bogardus, 1967) assume an orderly progression in the scale, with marriage

representing the minimum social distance, implying willingness for associations on all levels of lesser intimacy. Hacker (1951) points out that men who wish to marry usually marry women but may resist associations with women in other situations. Thus, she argues that in these cases the steps in the social distance scale must be reversed: "Men will accept women at the supposed level of greatest intimacy while rejecting them at lower levels" (p. 64).

Except for contact with one's spouse, men and women, boys and girls, appear to prefer friendships with members of their own sex (Bukowski et al., 1993; Maccoby, 1990). In some societies, social classes or ethnic groups, leisure time is largely spent with same-sex peers, even after marriage (Maccoby, 1990). Bukowski et al. (1993) argue that the individual differences in preferences for same-sex peers are the result of differences of children's perceptions and attitudes towards other-sex peers. Furthermore, Bukowski et al. (1993) point out that children who are not liked by other-sex peers are less likely to have other-sex friends and, as a consequence, have the fewest opportunities to form positive relationships with other-sex peers. Thus, these children's views of the other sex are unlikely to change.

Reskin (1984) discusses the phenomenon of gender segregation in the workplace. Citing Kuper (1968), she notes that segregation denotes physical separation. However, according to Kuper (1968, cited in Reskin, 1984), segregation also involves an institutionalised form of social distance between dominant and subordinate groups. Further evidence for occupational gender segregation and the underlying mechanisms of gender differences in the selection of roles regarding social hierarchy comes from social dominance research (Pratto et al., 1997). In addition, there is evidence that gender segregation and the division

of labour is a cross-cultural phenomenon since it also has been found in non-industrial societies (e.g. Murdock & Provost, 1973).

Jackman (1994) distinguishes between role segregation and spatial segregation. Role segregation is defined as groups being separated from each other based on norms or rules that prescribe appropriate behaviour based on group membership. Yet the segregation of men and women in occupational and friendship contexts probably contains elements of both forms segregation. Nevertheless, Jackman (1994) emphasises the function of sexuality and sexual reproduction in the development of role segregation and role prescriptions. The examples above can thus be seen as examples of role segregation implying a certain amount of spatial segregation due to group-based specialisation of tasks (see Jackman, 1994).

In conclusion, gender segregation persists in occupational roles and friendship networks. Still, 53.3% of the UK adult population (aged 16 or above) are married and 4.4 million adults are cohabiting (Office for National Statistics, 2001). Furthermore, in the US 56.7% of males over the age of 15 and 52.1% of females in the same age group are married (US Census Bureau, 2000). Accordingly, I would like to argue that the major venues for cross-group contact between the sexes are romantic relationships, including dating relationships, cohabitation and marriage.

Contact in romantic relationships

Pettigrew (1998) suggests that successful cross-group contact is related to long-term close relationships. Contact should enable friendship development, close interactions and self-disclosure. Pettigrew (1998) proposes that the four essential conditions outlined by

Allport (1954) and the friendship potential are important factors for positive intergroup outcomes. This chapter proposes that positive contact might also function to reduce prejudice in close male-female romantic relationships.

Some of the findings above indicate that the sexes remain segregated outside romantic relationships. I would like to argue that contact frequency alone is insufficient to produce positive outcomes. In contrast to Pettigrew and Tropp (2006), I propose that Allport's (1954) conditions are essential for the reduction of sexism. Contact in the workplace appears to be competitive and voluntary contact meeting Pettigrew's (1998) friendship condition does not take place either. On the contrary, if the equal status condition is met by women in high-status, traditionally male jobs, this elicits discrimination (e.g. Gruber, 1998). Thus, positive, voluntary contact between the sexes seems to predominantly occur in heterosexual romantic relationships. Therefore, the studies in this chapter will look at the relationship between positive contact and the reduction of sexism in romantic relationships.

The present research

The purpose of Study 3 is to investigate whether the quality of a current or most recent relationship with a woman causally impacts on men's ambivalent sexism. Study 3 will use the same salience manipulation paradigm (Schwarz & Strack, 1981) as Study 2. According to the logic of the contact hypothesis (e.g. Allport, 1954), contact within heterosexual romantic relationships should reduce hostile sexism if the contact fulfils the essential conditions established by Allport (1954). However, despite benevolent sexism being defined as a form of prejudice, it is perceived as positive by the person holding the attitude (e.g. Glick & Fiske, 1996). Therefore, positive intergroup contact might not challenge

benevolent sexism. I hypothesise that positive contact can reduce men's hostile sexism when it is highly salient. Yet this may not be the case for benevolent sexism. This pattern of results would provide evidence that contact quality influences men's levels of gender prejudice.

Study 3

Method

Participants.

One-hundred and four heterosexual men participated in this study online. The average age of participants was 26.14 years (SD = 9.88), ranging from 16 to 59 years with 80% of participants being 34 years old or younger. Ninety percent of participants were Caucasian and 10% were Black, Asian or did not respond to this question. Fifty-nine percent of participants were from the US, 32% from the UK and the remaining 9% came from other countries. Fifty-four percent of participants identified themselves as Christians, 36% indicated that they were Atheists, Agnostics or not religious. The remaining 10% indicated a variety of other religious backgrounds. Fifty-eight percent of the participants were students, 30% were in employment and the remaining 12% were self-employed, unemployed or "other". With respect to participants' marital status, about 47% of the sample were single, 26% were involved in a romantic relationship without being married, 24% were married and 3% were separated or divorced. Twenty-seven percent of participants had children.

Design, materials and procedure.

The design of Study 3 was similar to the design of Study 2. The dependent variable was the strength of the link between hostile sexism, benevolent sexism and contact quality. To simplify the study, the contact valence variable was dropped from the design. The Ambivalent Sexism Inventory (ASI, Glick & Fiske, 1996) was used along with the contact quality scale (QAC) by Islam and Hewstone (1993). The QAC was adapted to the context of the participants' current or most recent romantic relationship. Items and scale anchors of the QAC can be found in Appendix B.

Participants were approached via online psychology research platforms, the University of Kent website and emails to University of Kent mailing lists. After indicating their consent, participants filled in their demographic details. Once the actual study started, participants in the high salience condition completed the QAC followed by the ASI. This order was reversed for participants in the low salience condition. Participants were thanked and debriefed and the contact details of the researcher and her supervisor were given before participants exited the study.

Results

Preliminary analyses.

Cronbach's alpha indicated that the internal consistencies of all scales were acceptable to good (HS: $\alpha = .92$, BS: $\alpha = .88$, QAC: $\alpha = .81$). Composite scores for each scale were calculated by averaging the relevant items. The mean of the HS subscale was 0.13 (SD = 1.31) and the mean of the BS subscale was 0.19 (SD = 1.20), indicating that the means of

both subscales were above the midpoint of the scale. Correlation analyses yielded a significant relationship between HS and BS, replicating Glick and Fiske's (1996) findings in student samples. Furthermore, there was a significant relationship between HS and QAC, indicating a link between contact quality and HS. In contrast, the correlation between BS and QAC was close to zero (see Table 5).

Table 5

Correlations among HS, BS and QAC (N = 104)

	HS	BS	QAC
HS	-		
BS	.48**	-	
QAC	-.32**	-.05	-

Note. ** Correlation is significant at $p < .01$ (two-tailed).

A multivariate ANOVA on HS, BS and QAC, with condition (high versus low salience) as independent variable yielded no significant effects of condition on HS (F (1, 102) = 1.70, $p = .196$, $\eta^2 = .02$), BS (F (1, 102) = 0.51, $p = .478$, $\eta^2 = .01$) or QAC (F (1, 102) = 0.20, $p = .659$, $\eta^2 = .00$). The means and standard deviations for this analysis are shown in Table 6.

Finally, Analyses of Variance compared the mean levels of HS, BS and QAC for participants who were versus were not currently romantically involved. Table 7 presents means and standard deviations separated by relationship status. The only significant difference emerged for the QAC (F (1, 102) = 10.46, $p = .002$, $\eta^2 = .09$). Participants reporting about a current relationship rated the contact quality of this relationship higher

than participants reporting contact quality for a past relationship (i.e. these participants were not romantically involved). There were no significant mean differences between the two groups for HS (F (1, 102) = 1.55, p = .216, η^2 = .02) and BS (F (1, 102) = 0.13, p = .716, η^2 = .00).

Table 6

Mean scores for HS, BS and QAC for high versus low salience conditions

	Salience	
	Low (N = 56)	High (N = 48)
HS	-0.03 (1.25)	0.30 (1.36)
BS	0.11 (1.20)	0.28 (1.20)
QAC	5.59 (1.30)	5.69 (1.01)

Note. Standard Deviations are reported in parentheses.

Table 7

Mean scores for HS, BS and QAC for participants who are referring to a current versus past relationship

	Currently in a Relationship	
	No (N = 38)	Yes (N = 66)
HS	0.33 (1.26)	0.00 (1.33)
BS	0.25 (1.02)	0.16 (1.30)
QAC	5.17 (1.36)	5.91 (0.95)

Note. Standard Deviations are reported in parentheses.

Main analysis.

Hierarchical regression analyses with HS and BS as criterion variables tested the main hypothesis of this study. QAC, condition (high versus low salience), and their interaction term were used as predictor variables in both analyses. For HS, there was a significant main effect of QAC. However, condition did not reach significance as a predictor and neither did the interaction term between QAC and condition. Hence, the hypothesis for HS is not supported by the data. However, the data indicate a medium sized negative relationship between hostile sexism and contact quality in the expected (negative) direction. Table 8 presents the findings of this analysis.

A similar hierarchical regression analysis for BS yielded no significant results. None of the predictor variables reached significance. QAC did not significantly predict BS, neither did condition nor their interaction term. The results are available in Table 9.

Table 8

Regression analysis of the effects of QAC and Salience on HS (N = 104)

Regression Step		*B*	*SE B*	β	*T*	*p*
Step 1	$R^2 = .12$					
	QAC	-0.37	0.10	-.33	-3.49	.001
	Condition	0.19	0.12	.14	1.52	.131
Step 2	$\Delta R^2 = .01$					
	QAC	-0.40	0.11	-.36	-3.63	.000
	Condition	0.19	0.12	.14	1.54	.126
	QAC x Condition	-0.11	0.11	-.10	-1.00	.321

Table 9

Regression analysis for the effects of QAC and Salience on BS (N = 104)

Regression Step		*B*	*SE B*	β	*T*	*p*
Step 1	$R^2 = .01$					
	QAC	-0.05	0.10	-.05	-0.49	.623
	Condition	0.09	0.12	.07	0.73	.467
Step 2	$\Delta R^2 = .01$					
	QAC	-0.08	0.11	-.08	-0.72	.473
	Condition	0.09	0.12	.07	0.74	.459
	QAC x Condition	-0.09	0.11	-.08	-0.79	.430

Discussion

The findings of Study 3 do not support the hypothesis that contact quality causally impacts on sexism. However, in the context of romantic relationships, the significant negative link between hostile sexism and contact quality was stronger than in Study 2 (r = -.32 vs. r =.-17), which looked at cross-gender contact of not necessarily romantic nature. Another interesting finding of Study 3 is the lack of an association between contact quality and benevolent sexism. This is in line with the findings of Study 2. Both interaction terms failed to reach significance. These interaction terms between contact quality and salience condition were of particular interest in this study as they would have been important indicators for the direction of the causal sequence of the relationship between the two forms of sexism and cross-group contact.

Overall, the first three studies in this thesis provide no support for the contention that –

within the chosen experimental paradigms – cross-group contact between women and men impacts on men's hostile and benevolent sexism. While in Study 1 there was no impact of remembering contact whatsoever, Studies 2 and 3 provided some evidence that hostile sexism and contact quality are negatively correlated. Benevolent sexism is not related to contact quality and the relationship between hostile sexism and contact quality is correlational in nature which prevents causal interpretations.

This lack of evidence for a causal impact of cross-group contact on contemporary gender prejudice is striking. However, I argued in this chapter and in Chapter 2 that cross-group contact between women and men may be fundamentally different from other intergroup contexts (e.g. Fiske & Stevens, 1993; Hacker, 1951; Jackman, 1994). Still, Study 3 provided evidence for a medium-sized (Cohen, 1988) negative association between hostile sexism and contact quality in the context of romantic relationships.

Study 4

Study 4 constitutes the last attempt using the experimental methods presented so far to establish whether cross-gender contact reduces sexism. Study 1 applied the ease of retrieval paradigm (Schwarz et al., 1991) to the idea of making qualitatively positive or negative experiences with women in daily life situations salient and accessible, and asking participants to rate their attitudes towards women (hostile and benevolent sexism). Studies 2 and 3 had some success in providing evidence for a negative relationship between hostile sexism and contact quality in everyday life (Study 2) and in romantic relationships (Study 3). Study 4 was a replication of Study 1 with two major adjustments: Study 4 did not

operate within the Ease of Retrieval framework but utilised a simplified version of the design of Study 1. More specifically, participants were either asked to remember two positive or two negative instances of contact with women. This experimental approach was adapted from the original Ease of Retrieval paradigm by Schwarz et al. (1991), the research by William McGuire (e.g. McGuire, 1960; McGuire & McGuire, 1996) and authors such as Galinsky, Gruenfeld and Magee (2003), who used autobiographical essays as experimental manipulations.

The second alteration compared to Study 1 is the focus on romantic relationships. In Study 4, only heterosexual men were included and they were explicitly asked to list encounters with their current or most recent romantic partner. Based on the predictions of the contact hypothesis and the findings of the previous three studies, I hypothesise that remembering two positive experiences with one's current or most recent romantic partner will result in a reduction of hostile sexism but will have no impact on benevolent sexism. In contrast, remembering two negative experiences should lead to an increase in hostile sexism but no change in benevolent sexism.

Method

Participants.

One-hundred and nine heterosexual men participated in this study online. The age of participants ranged from 18 to 69, with an average age of 28.01 years (*SD* = 10.74) and 80% of participants being 33 years old or younger. Eighty-two percent of participants were Caucasian, 11% were Black and the remaining 7% were either Asian, Hispanic or of a mixed ethnic background. The majority of participants (37%) were American citizens, 27%

were British and 36% of participants came from a variety of different countries. Forty-nine percent of participants were Atheists, Agnostics or not of any religious faith, 42% classified themselves as Christians and 9% of participants reported being of other religious faiths or did not respond to the question. About 62% of participants were students, further 28% indicated that they worked in paid employment and the remaining 10% were either self-employed, unemployed, retired or chose the "other" option. Forty-five percent of participants were not involved in a romantic relationship, 34% were romantically involved without being married, 17% reported being married and 4% were divorced or chose the "other" option. Seventeen percent of participants had at least one child. The vast majority of participants (78%) indicated English as their first language.

Design, materials and procedure.

This study featured a pre-post-test between participants design. Participants filled in the first half of the ASI (Glick & Fiske, 1996). The ASI was split into two parts, one to be used in the pre-test and the other to be used in the post-test. This was done in order to avoid that participants remembered their responses in the pre-test when they completed the post-test. The goal was to set a higher threshold for participants' attempts to respond consistently due to repetition of the same questions. This was particularly important since there was a very short time interval between pre- and post-testing.

Participants were asked to remember two positive (negative) examples of contact with their current or most recent romantic partner. Then, participants completed the second half of the ASI. In the control condition, participants only filled in the ASI without stating any

examples. All conditions were counterbalanced, yielding a total of six conditions.

This online study was posted on various internet outlets, as described in Studies 1 to 3. After participants agreed to participate, they filled in their demographic details and the first half of the ASI. Whereas the participants in the control condition immediately completed the second half of the ASI, in the two experimental conditions, participants were asked to provide two examples of positive or negative contact with their romantic partner. Then participants completed the second half of the ASI. Before leaving the study, participants were thanked and debriefed and contact information was provided.

Results

Preliminary analyses.

Cronbach's alpha yielded satisfactory results for both ASI scales (HS: $\alpha = .92$, BS: $\alpha = .90$) and a correlation analysis revealed a significant positive correlation between HS and BS (r (103) = .48, $p < .001$). The mean of the HS subscale was 0.08 (SD = 1.36) and the mean of the BS subscale was -0.15 (SD = 1.36). Thus, while the mean HS score was almost exactly at the midpoint of the scale, the mean BS score was slightly below the scale midpoint. A one-way ANOVA indicated no significant mean differences in HS (F (1, 102) = 1.20, $p = .276$, $\eta^2 = .01$) and BS (F (1, 102) = 2.38, $p = .126$, $\eta^2 = .02$) for participants who were in a relationship versus participants who referred to a past relationship (see Table 10).

Table 10

Mean scores of HS and BS for participants who are referring to a current versus most recent relationship

	Currently in a relationship	
	No (N = 47)	Yes (N = 54)
HS	0.25 (1.34)	-0.05 (1.39)
BS	0.03 (1.25)	-0.38 (1.44)

Note. Standard Deviations are reported in parentheses.

Main analysis.

To test the hypothesis that priming positive encounters with a romantic partner reduces sexism, one-way ANOVAs were conducted on the hostile and benevolent sexism difference scores. The HS and BS difference scores were calculated as in Study 1. A negative algebraic sign of the difference score would indicate a reduction of sexism in the post-test in comparison to the pre-test. A positive sign indicates an increase in sexism from pre-test to post-test. Experimental condition (control, 2 positive and 2 negative examples) was used as the between-subjects factor.

The overall F-test did not indicate a significant change in hostile sexism in any of the conditions (F (2, 100) = 0.18, p = .836, η^2 = .00). Likewise, the Scheffé post hoc criterion signified no substantial differences in the HS difference scores between conditions (all ps > .10). The means for the HS difference scores across conditions are shown in Table 11. Similarly, the F-statistic for the ANOVA on the BS difference score did not reach

significance (F (2, 100) = 0.30, p = .740, η^2 = .01). The Scheffé post hoc criterion indicated no significant differences in BS difference scores between the conditions (all ps > .10.). Table 11 presents the means and standard deviations for the BS difference scores.

Table 11

Mean difference scores of HS and BS across experimental conditions

	Condition		
	2 positive (N = 31)	control (N = 37)	2 negative (N = 35)
HS	-0.06 (0.83)	-0.05 (0.82)	0.04 (0.73)
BS	-0.12 (0.88)	-0.28 (0.84)	-0.24 (0.96)

Note. Standard Deviations are in parentheses.

Discussion

Study 4 yielded no significant changes in hostile and benevolent sexism after participants recalled instances of positive or negative contact in a romantic relationship. Making positive or negative examples of romantic contact with a woman salient did thus not have an impact on male participants' sexism levels.

As can be seen from Table 11, there is a trend to lower levels of sexism across all three conditions in the post-test as compared to the pre-test. This could be due to problems inherent to repeated measures designs (e.g. Linn & Slinde, 1977; Solomon, 1949). As Solomon (1949) points out, pre-tests can impact on the effectiveness of a treatment or interact with its effects, in that merely taking the pre-test can change participants' attitudes

towards the subject of interest. These effects can operate in the positive as well as the negative direction, depending upon the psychological effects of the pre-test on the way participants approach the intervention (Solomon, 1949). In order to control for this possibility, more complex experimental designs (e.g. Solomon, 1949) could have been employed or, alternatively, the pre-test could have been omitted, given that participants were randomly assigned to the experimental conditions (see Linn & Slinde, 1977). This critique also applies to Study 1. McGuire and McGuire (1996) avoided using a repeated measures design in order to prevent anchoring effects. Conversely, a pre-test can increase experimental precision and statistical power by controlling for pre-existing differences between the experimental groups (Linn & Slinde, 1977).

Another possible explanation for the lack of findings in Study 1 and 4 could be the time frame of the study. Because participants completed the study online, they completed the ASI pre-test, the experimental manipulation and the ASI post-test in immediate succession. This might have made the purpose of the study very visible and may have led to a reactance effect. Such resistance effects are known from the priming literature (e.g. Bargh & Chartrand, 2000). McGuire and McGuire (1996) discuss the possibility of a reactance effect with regard to the differences between the findings in their second and third experiment. In contrast to the former, the latter experiment included an eighteen minute interval filled with distracting activities. McGuire and McGuire (1996) explain the stronger effects of their experimental manipulation in Experiment 3 with "temporal inertia" allowing the salience manipulation to be gradually absorbed. However, Study 4 did not allow for longer time-lags in the administration of the different parts of the questionnaire.

General Discussion

Chapters 3 and 4 did not provide empirical evidence that cross-gender contact reduces ambivalent sexism. Even though there is a significant negative relationship between hostile sexism and contact quality in Study 3, like in Study 2, there is no evidence for the direction of the causality of this link. Study 4 aimed to clarify the causal link in a more traditional experimental approach. Like Study 1, Study 4 failed to provide evidence of a contact – sexism link. However, both these studies suffer from limitations that restrict possible conclusions.

Study 3, along with Study 2, provides evidence that there is a moderate negative relationship between hostile sexism and contact quality. Allport (1954) and Pettigrew and Tropp (2006) argued that intergroup contact effects on prejudice are enhanced if the contact takes place under equal status conditions and is experienced as intimate rather than superficial, as pleasant, cooperative and voluntary. Given some of the findings discussed in the introduction to this chapter, these contact features might be especially important in the gender context.

In Study 3, the contact quality measure by Islam and Hewstone (1993) was adapted to refer to the participants' current or most recent heterosexual romantic relationship partner. However, the ASI was designed to measure prejudice towards women in general. Thus, Study 3 provides preliminary evidence that experiences in romantic relationships are interlinked with attitudes towards women in general. Nevertheless, it might be the case that contact does not impact on sexism but an individual's sexism might impact on contact experiences. Johannesen-Schmidt and Eagly (2002) found that stronger endorsement of the

traditional female gender role as measured by the ASI predicted the preference for a romantic partner who conforms with the traditional division of labour. Furthermore, Eastwick, Eagly, Glick, Johannesen-Schmidt, Fiske and Blum et al. (2006) provide evidence that cross-nationally, partner choices are influenced by ambivalent sexism levels. Moreover, partner preferences appear to be driven mainly by benevolent sexism, whereas marital norms are predicted by hostile sexism (Chen et al., 2009). Thus, Chapters 5 and 6 will quasi-experimentally investigate the impact of ambivalent sexism on romantic partner preferences.

Chapter 5:

Ambivalent Sexism, Stereotype Content and Partner Preferences

The studies reported so far provide findings that are not consistent with the argument that cross-gender contact challenges men's ambivalent sexist attitudes. This chapter will therefore explore whether the opposite direction of causality operates, such that ambivalent sexism predicts contact preferences. Study 5 was a pilot study, testing materials for use in Studies 6 to 8. The findings from male participants indicate that descriptions of hypothetical individual women ('Julia', Siebler, Sabelus & Bohner, 2008) are perceived along the dimensions of competence and warmth of the stereotype content model. Study 6 tested quasi-experimentally whether men's ambivalent sexism predicts romantic partner preferences and introduces a measurement instrument to assess this 'Wish for a Relationship' (REL). As predicted, BS was significantly positively related to REL, however, HS was not. The crucial interaction effect failed to reach significance. Thus, Study 6 does not provide evidence for ambivalent sexism causally impacting on romantic preferences in men.

Introduction

Chapters 3 and 4 investigated whether there is a link between ambivalent sexism and cross-gender contact and in which direction the causal sequence of this link operates (e.g. Pettigrew, 1998). However, the data did not provide information to clarify the direction of causality. Studies 1 and 4 yielded no evidence for contact effects on sexism and Chapter 4 discussed possible methodological reasons for this lack of findings. Studies 2 and 3 included a measure of contact quality and I emphasised the importance of the facilitating positive contact conditions in gender contexts. Still, the direction of causality of the link between hostile sexism and contact quality remained unclear. Study 3 provides evidence that positive experiences in romantic relationships might be related to attitudes towards women more generally. However, given the lack of findings, I propose that it may not be that positive contact impacts on sexism levels but that an individual's sexism leads to specific contact experiences. Chapter 5 will investigate the impact of ambivalent sexism on romantic partner preferences.

Social Role Theory

In Chapter 1, I presented a preliminary outline of social role theory (e.g. Eagly, 1987). According to Eagly (1987), differences in the behaviour of social groups need to be analysed in the light of a group's position within the social structure. Social role theory is a structural theoretical approach and Eagly (1987) focuses on the differences in the social positions of the sexes and how these differences lead to different role expectations for women and men. She defines gender roles as "those shared expectations (about appropriate qualities and behaviours) that apply to individuals on the basis of their socially identified

gender" (p. 12). Role differences between women and men are assumed to elicit differing behavioural tendencies due to conformity to gender roles, with the roles based on family and occupation being of specific interest (Eagly, 1987).

According to Eagly (1987), people hold gender stereotypes about differences between women and men along the dimensions of positive communal and agentic traits. Communal gender stereotypes describe a concern with welfare of other people and are typically ascribed to women (Eagly, 1987). Agentic gender stereotypes (assertive, controlling) are commonly ascribed to men (Eagly, 1987). While the communal female stereotype is assumed to arise from the domestic role, the agentic male stereotype is hypothesised to have evolved from men's typical roles in society and economy (Eagly, 1987), implying a sexual division of labour. These stereotypes turn into prescriptions of appropriate male and female qualities and are likely to be culturally transmitted (Eagly, 1987).

Eagly and Wood (1999) discuss partner preferences and reanalyse cross-cultural data by Buss (1989). Partner selection from a social role perspective reflects people's efforts to maximise their outcomes in an environment which is restricted by gender roles and expectations associated with marital roles (Eagly & Wood, 1999). Thus, Eagly and Wood (1999) propose a "cost-benefit analysis of mating" (p. 415) and claim that marital and family roles entail different responsibilities and obligations, which lead to partner selection in line with criteria that reflect these divergent responsibilities and obligations. Hence, women maximise their outcomes by finding a partner who is successful in the economic, wage-earning role and men maximise their outcomes with a partner who is successful in the domestic role (Eagly & Wood, 1999). Cross-culturally, Eagly and Wood (1999) found evidence that sex differences in partner preferences were weaker in societies with greater

gender equality, supporting the notion that sex-differences in partner preferences are by-products of the social structure.

Ambivalent sexism and responses to women

Hostile and benevolent sexism also impact on responses to members of the opposite sex. Glick et al. (1997) present evidence that ambivalent sexist men tend to habitually split women into good and bad subgroups. According to Glick et al. (1997), sexist men's reactions to individual women are guided by stereotypes at the level of female subtypes and function as a guide to appropriate responses towards individual women. Traditional women such as homemakers are likely to activate benevolent sexist responses while non-traditional women such as feminists or career women are likely to receive hostile sexist responses (Glick et al., 1997). In two studies Glick et al. (1997) show that ambivalent sexist men – relative to non-sexist men – spontaneously categorise women into subgroups that are evaluated in a polarised fashion. In Study 2, Glick et al. (1997) found that men who endorse hostile sexism construe and evaluate non-traditional women (career women) less favourably than men low in hostile sexism. In contrast, men who endorse benevolent sexism construe and evaluate traditional women (homemakers) more favourably than men low in benevolent sexism. Glick et al. (1997) discuss evidence that, in sexist men, career women evoked feelings of envy, competitiveness and intimidation, while homemakers induced positive feelings and symbolic beliefs that centred on the complementary roles of women and men in marriage.

Johannesen-Schmidt and Eagly (2002) predicted that, to the extent that men prefer the traditional female role by manifesting benevolent or hostile sexism, they show stronger

preferences for partner traits that support the traditional division of labour. In line with their theorising, Johannesen-Schmidt and Eagly (2002) found that hostile and benevolent sexism in men was related to preferences of younger romantic partners with favourable surface qualities (e.g. good looks, good health) and traditional female qualities (e.g. chastity, good cooking and housekeeping skills).

Eastwick et al. (2006) tested whether the associations between ambivalent sexism and partner preferences can be replicated in a range of nations that differ in gender equality. They found that at a national level, as gender equality increased (as measured by the GEM and the GDI), men's preference for a younger romantic partner significantly weakened. On the individual level, the higher men scored on the ASI (Glick & Fiske, 1996) and the AMI (Glick & Fiske, 1999a), the more they preferred a younger romantic partner. Eastwick et al. (2006) conclude that their findings support the notion that traditional attitudes towards male and female roles guide partner choices by fostering sex-typed partner preferences.

Travaglia, Overall and Sibley (2009) investigated the impact of benevolent and hostile sexism on preferences for romantic partners in female and male participants cross-sectionally and longitudinally, relying on the ideal standards model (Fletcher, Simpson, Thomas & Giles, 1999). Travaglia et al. (2009) found that greater hostile sexism in men was related to stronger preferences for attractiveness/vitality in a romantic partner and higher benevolent sexism predicted greater warmth/trustworthiness standards. The results of this study thus indicate that ambivalent sexist ideologies promote partner preferences consistent with traditional gender roles.

Chen et al. (2009) used survey methods to investigate the relationships between ambivalent sexism and gender-ideology in marriage in a Chinese and an American sample.

Chen et al. (2009) found that, in Chinese and American men, benevolent sexism related to partner selection criteria in favour of female submissive characteristics and hostile sexism related to marriage roles assigning women to housework instead of success, to assisting and upholding male authority and supporting male dominance while avoiding male shame.

Lee, Fiske, Glick and Chen (2010b) found for American men that benevolent ideologies predicted a desire for a traditional, warm romantic partner and that hostile ideologies appeared to be related to less intense partner requirements. Chinese men high in hostile ideologies, in contrast, expressed higher demands in their requirements for their relationship partners. Lee et al. (2010b) argue that the culture moderator effects for hostility indicate that the relationship between hostility and partner ideals is enhanced in the Chinese sample, suggesting that hostility is potent in a context where there is great gender disparity at the societal level. Thus, ambivalent sexist ideologies impact on romantic partner preferences in conjunction with the predictions made by social role theory (e.g. Eagly & Wood, 1999).

Stereotype Content Model

Eagly (1987) proposed that gender stereotypes of women and men operate along the dimensions of communion and agency, with women being perceived as more communal and men as more agentic. These stereotypes arise from the traditional division of labour and the resulting gender roles. Similarly, the stereotype content model (Fiske et al., 2002; Fiske et al., 1999) provides a more recent theoretical contribution to the study of stereotypes by proposing competence and warmth as orthogonal dimensions underlying these group stereotypes.

Judd, James-Hawkins, Yzerbyt and Kashima (2005) argue that judgements of people, traits, behaviours, groups or cultures appear to differ along the same two fundamental dimensions, which re-surface in the literature with different names and different interpretations but revolve around similar two-dimensional structures. Thus, Judd et al. (2005) argue that one of these dimensions can be referred to as competence or agency while the second dimension can be called communality or warmth. Judd et al. (2005) do not claim that these terms are identical or that there are no meaningful differences. However, they emphasise the similarity of meanings of these dimensions across objects of judgement and claim that they seem more similar than different.

Glick and Fiske (1999b) define their use of the term 'competence' as "a shorthand for task competence, the skills that are commonly believed required for success outside the home and typically seen as requiring stereotypically masculine traits (i.e. agentic traits, e.g. ambition, independence, and competitiveness, or masculine physical traits, e.g. strength and mechanical ability)" (p. 196, footnote 1). In contrast, the same footnote defines the likeability dimension as involving "another kind of competence, interpersonal skills such as social sensitivity. [...] this dimension accords well with stereotypically feminine communal traits (e.g. caring)" (Glick & Fiske, 1999b; p. 196). Based on this, I will merge the terminology as well as the concepts used in social role theory and the stereotype content model in this chapter and will use the warmth and competence scales developed by Fiske et al. (2002) to test hypotheses based on social role theory (see Study 5).

Fiske et al. (1999) propose that the relative status of groups and their structural interdependence (competition versus cooperation) with one's own group influence the

stereotypes about outgroups. More specifically, a group's status predicts perceived competence and interdependence predicts perceived warmth (Fiske et al. 1999). Fiske et al. (1999, Study 1) named 17 groups and asked their participants to rate them on trait adjectives derived from Conway, Pizzamiglio and Mount (1996). Of the three included female subgroups, feminists and businesswomen were perceived to be significantly more competent than warm and housewives were perceived to be significantly more warm than competent. Fiske et al. (1999, Study 2) provided evidence that status correlated with competence and competition was negatively correlated with warmth.

According to Fiske et al. (1999), ambivalent sexism accounts for the contrasting perceptions of warm but incompetent traditional female subgroups and competent but cold non-traditional female subgroups. This is consistent with the findings by Glick et al. (1997). The findings by Fiske et al. (1999) show that traditional women such as housewives fall into the low-status, warm and incompetent cluster and non-traditional women such as businesswomen and feminists are stereotyped as high-status, competent but cold.

Fiske et al. (2002) extend this research and examined whether mixed stereotypes are maintained across a wider range of outgroups. Fiske et al. (2002) found that participants rated businesswomen and feminists significantly higher in competence than in warmth, whereas they obtained the opposite pattern for housewives (Study 1). Fiske et al. (2002, Study 3) replicated this finding for feminists and housewives. Perceived status was highly correlated with perceived competence and perceived competition was correlated with perceived lack of warmth (Study 1). In contrast, Fiske et al. (2002, Study 2) only included women and men as gender groups. This study provided evidence that men were perceived as competent but not warm and women were perceived as significantly more warm than

competent. This invites the argument that non-traditional subtypes of women might be perceived as possessing male characteristics (see Fiske et al., 1999; 2002, Studies 1 & 3) and are hence violating the female gender role.

Eckes (2002) focused on female and male subgroups, using a German participant sample. In line with Fiske and colleagues (1999, 2002), Eckes (2002) found that career women and feminists were perceived as significantly more competent than warm while housewives and typical women were perceived as significantly more warm than competent. Wade and Brewer (2006) examined ambivalence towards subgroups of women using explicit and implicit measures of stereotyping. Subgroups like businesswomen, homemakers and feminists consistently differed in their trait assessments along warmth and competence lines. Wade and Brewer's (2006) second study specifically focused on the subgroups of homemakers and businesswomen. They found that male participants implicitly evaluated homemakers more positively than businesswomen. As Wade and Brewer (2006) point out, homemakers are more stereotypical of the superordinate category of women, while businesswomen possess a set of stereotypic traits that are orthogonal to those associated with the superordinate category of women.

The present research

Study 5 expands the existing literature by attempting to show that the dimensions of competence and warmth are applied on the individual level in addition to the group level. This would be consistent with Judd et al.'s (2005) argument. In addition, Study 5 will ask participants to rate the female characters based on their personal perceptions. Fiske et al. (2002) avoided this to prevent social desirable responding and so as to tap into perceived

cultural stereotypes. Neither of those concerns is of relevance in the context of this thesis. Study 5 and the subsequent studies will feature between-subjects designs and participants will not be able to compare their own responses to the two different female characters. Moreover, competence and warmth will possibly be considered by most participants as positive traits. Since the context of this and the following chapters is contact in romantic relationships, participants' personal perceptions seem more relevant than cultural stereotypes.

Study 5 is a pilot study and will test materials by Siebler et al. (2008) for their suitability for use in Studies 6, 7 and 8. Siebler et al. (2008) investigated the impact of a potential target's gender-role-related attitudes (feminist versus traditional) on men's sexual harassment behaviour. Siebler et al. (2008) provided their male participants with information about a female chat partner's feminist versus traditional attitude by embedding it in a short self-description that a (fictitious) woman called Julia had supposedly typed in response to experimental instructions. The self-descriptions of the traditional and the non-traditional (feminist) woman are given in the methods section of Study 5.

Study 5 aims to place the fictitious traditional and non-traditional self-descriptions of 'Julia' by Siebler et al. (2008) within the two-dimensional space of the stereotype content model. Fiske et al. (1999, 2002), Eckes (2002) and Wade and Brewer (2006) provide evidence that non-traditional women such as career-women/businesswomen or feminists are perceived as high in competence but low in warmth. In contrast, there is evidence that traditional women such as housewives are stereotypically perceived as low in competence but high in warmth. By linking Siebler et al.'s (2008) materials to the stereotype content model, I predict that the traditional Julia will be perceived as significantly more warm than

competent while the non-traditional Julia will be perceived as significantly more competent than warm. Furthermore, I predict that the traditional Julia will be perceived as significantly warmer than the non-traditional Julia. However, the traditional Julia will be perceived as significantly less competent than the non-traditional Julia[4].

Study 5

Methods

Participants.

Seventy-two male heterosexual German participants participated in this study online. The average participant age was 28.50 (SD = 6.96), ranging from 15 to 46 years. Eighty percent of participants were 33 years old or younger. Twenty-eight percent of participants indicated that they were students, 39% were employed, 17% were self-employed, 11% were pupils, 4 % were unemployed and the remaining 1% chose the "other" option. With respect to marital status, 35% of the participants indicated that they were single, 39% were currently involved in a romantic relationship without being married, 18% of participants were married, 6% were divorced and the remaining 2% responded with the "other" option. Nineteen percent of the participants had children. All participants were of German nationality and spoke German as their first language.

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[4] I will from now on distinguish between the two subtypes of women using the terms 'traditional' and 'non-traditional'. By 'traditional' I refer to stereotypical ascriptions of low competence and high warmth, high communion and low agency and the enactment of traditional female gender roles. In contrast, by 'non-traditional' I refer to stereotypical ascriptions of high competence and low warmth, low communion and high agency and the rejection of traditional female gender roles. By using 'traditional' and 'non-traditional' in this specific way, I am trying to keep the use of language within this thesis consistent. Furthermore, the existing literature appears to refer to concepts that are in essence similar (e.g. Glick & Fiske, 1999b). Glick and Fiske (1999b) define 'traditional' as "women who fulfil conventional roles that are subordinate to men's roles and that serve men's needs" (p. 215, footnote 4), they here refer specifically to the role of the homemaker as a subordinate role.

Design, materials & procedure.

The study featured a between participants post-test only experimental design with type of woman (traditional versus non-traditional) as the between participants factor. Participants were introduced to a woman called Julia and were then asked to provide judgements of this woman's competence and warmth. The fictitious self-descriptions of the two female characters (traditional versus non-traditional woman "Julia") were taken from Siebler et al. (2008). In the traditional woman condition, Julia indicates that she is currently training to become a primary school teacher and introduces herself with the following statement:

"In my opinion the job of a teacher, especially a primary school teacher, is ideal for a woman because you can have enough time for family and children. At first I intended to study law but I don't think the competition with all these men would have been right for me and that's why I've changed my mind. As for my plans, I will soon be working at a primary school for a couple of weeks. Other than that, I will just be finishing my studies. Later I also want to have children and so I probably won't be working for a while."

In contrast, in the non-traditional woman condition, Julia indicates that she studies business administration and comments:

"In my opinion studying business administration is ideal as you can demonstrate your skills, especially because I am aiming at a career in the management of a bank. Indeed, I do get to hear a lot that a management position isn't the right job for a woman because you hardly have enough time for family and children, but I think that women have many skills that are useful in management and that they can do a lot of things just as well as men or

even better. This is also the reason why I've joined a group that campaigns for women's rights and equal opportunities in the job market."

Stereotype Content Model (Fiske et al., 2002). In order to assess participants' evaluations of these fictitious characters, the scales for competence and warmth by Fiske et al. (2002, Study 1) were utilised. The competence scale was adapted for the use in Study 5 and consisted of 5 items: "How competent (confident, independent, competitive, intelligent) do you think Julia is?" Participants indicated their responses on a 5-point Likert type scale ranging from 1 (*not at all*) to 5 (*very much*). Similarly, participants' warmth ratings of the characters were assessed by four items: "How warm (tolerant, good natured, sincere) do you think Julia is?" In contrast to Fiske et al. (1999, 2002), participants were instructed to rate Julia along the competence and warmth dimensions "as they personally perceive her". Thus, instead of assessing cultural stereotypes, I assessed participants' personal perceptions. Since the study was conducted with German participants, I translated all items into German.

The study was conducted online and participants were approached via a commercial German online research mailing list and as an advert on Facebook. The research was described as investigating what 'types of people' are perceived by society and how people evaluate these different types of people. After participants provided their demographic details, they were introduced to one of the two hypothetical characters. Then they completed the competence and warmth scales as adapted from Fiske et al. (2002). The questionnaire concluded with a text box for comments, debriefing information and the contact details of the researcher, the research supervisors and the School of Psychology Ethics Committee.

Results

Reliability analyses (Cronbach's alpha) for both scales adapted from Fiske et al. (2002) indicated satisfactory reliabilities (Competence: $\alpha = .77$, Warmth: $\alpha = .89$). In line with Fiske et al. (1999, 2002), the scales were significantly and negatively correlated (r (69) = -.30, $p = .011$).

The purpose of Study 5 was to establish the warmth and competence ratings of the traditional versus the non-traditional character. Matched pair t-tests indicated that the traditional female character Julia was perceived as significantly more warm ($M = 3.80$, $SD = 0.73$) than competent ($M = 2.67$, $SD = 0.74$; t (40) = 8.06, $p < .001$, $d = 1.54$). In contrast, the non-traditional female character Julia was perceived as significantly more competent ($M = 3.71$, $SD = 0.54$) than warm ($M = 2.51$, $SD = 0.64$; t (29) = -8.37, $p < .001$, $d = 2.03$).

A multivariate analysis of variance examined whether the traditional woman was perceived as less competent but warmer than the non-traditional woman. There was a significant main effect of condition (traditional vs. non-traditional woman) on the competence ratings of the two female characters Julia (F (1, 70) = 42.81, $p < .001$, $\eta^2 = .38$). The non-traditional Julia was perceived as significantly more competent ($M = 3.71$, $SD = 0.54$) than the traditional Julia ($M = 2.67$, $SD = 0.74$). A significant main effect of condition on the warmth ratings of the two female characters (F (1, 70) = 59.38, $p < .001$, $\eta^2 = .46$) indicated that participants perceived the traditional Julia as significantly warmer ($M = 3.80$, $SD = 0.73$) than the non-traditional Julia ($M = 2.51$, $SD = 0.64$).

Discussion

Study 5 tested materials by Siebler et al. (2008) for their compatibility with the stereotype content model (e.g. Fiske et al., 2002) and their suitability for use in Studies 6, 7 and 8. Study 5 indicates that male participants perceive the traditional and non-traditional descriptions of Julia (Siebler et al., 2008) along the dimensions of warmth and competence, which are significantly and negatively correlated. Study 5 ads to the existing literature in two important ways: It shows that the dimensions cannot only be applied to groups but also on the individual level. This is consistent with the argument that there are two fundamental dimensions which people use to make judgements about other people, traits, behaviours, groups or cultures (Judd et al., 2005).

Study 5 explicitly asked participants to rate the female characters based on their personal perception. Fiske et al. (2002) used different instructions in order to avoid social desirability and to tap into perceived cultural stereotypes. As discussed, neither point is of great importance in this context. With reference to socially desirable responding, the findings of Study 5 indicate that participants were not concerned about responding in a socially desirable way as they still differentiated between the two female subtypes. Also, Study 5 featured a between-subjects design (i.e. participants could not draw internal comparisons between their own responses) and the competence and warmth items are all worded in positive direction. Thus, participants might not have felt that they judged the female subtype in question unfavourably.

Since the focus of this thesis is on romantic relationships, it was more important to assess personal perceptions rather than cultural stereotypes and the use of personal perceptions appears closer to social role theoretical approaches. Study 5 provides evidence

that the traditional and the non-traditional female character by Siebler et al. (2008) are perceived differently along the warmth and competence dimensions. Thus, Studies 6, 7 and 8 will use the descriptions of the two fictitious female subtypes as materials to introduce experimental manipulations.

Study 6

Five recent publications (Chen et al., 2009; Eastwick et al., 2006; Johannesen-Schmidt & Eagly, 2002; Lee et al., 2010b; Travaglia et al., 2009) linked ambivalent sexism theory to partner preferences. All five publications provide evidence that higher levels of traditional gender ideology – as measured by the ASI – are related to stronger preferences of traditional romantic partners. However, none of the above publications incorporated the dimensions of competence and warmth as described by the stereotype content model (e.g. Fiske et al., 2002).

All five papers also share the limitation that their data are correlational and consequently, the causal direction of the link between sexist ideology and partner preference remains ambiguous. Thus, Chen et al. (2009) explicitly encourage future researchers to use an experimental approach. In consequence, Study 6 will quasi-experimentally investigate whether the causal sequence between ambivalent sexism and cross-gender contact – in the form of partner preferences – operates in a way such that sexist ideology guides contact decisions.

The present research

Study 6 will be the first quasi-experimental test linking ambivalent sexism and social role theory and will give insight into the question regarding the causal sequence of the

sexism – partner preference link. Moreover, Study 6 will link the literatures on the dimensions of warmth and competence with the social role claims regarding communion and agency. I hypothesise that ambivalent sexist ideologies predict partner preferences in heterosexual men. More specifically, I expect that higher levels of benevolent sexism will be related to stronger preferences for a traditional female partner (high warmth, low competence) whereas higher levels of hostile sexism will be related to stronger rejections of a non-traditional female partner (low warmth, high competence; see Glick et al., 1997).

Method

Participants.

A convenience sample of ninety-nine male former soldiers from the German Federal Armed Forces participated in this study. All participants were enrolled at the Bundeswehrfachschule Naumburg. Participants ages ranged from 21 to 36, with 87% of the sample being 32 years old or younger (M = 29.03, SD = 2.76). Twenty-two percent of the participants reported to be single, 55% reported living in a relationship, 21% were married, and 1% chose the "other" category of the marital status answering options. Just over one-third of the participants reported having children (38%); with a maximum of two children. All participants were Caucasians of German nationality.

Design, materials & procedure.

Study 6 featured a quasi-experimental between-subjects design with type of woman ("Julia", traditional vs. non-traditional) and levels of sexism (HS and BS) as independent variables. The dependent variable was the (hypothetical) wish for a relationship with "Julia". Participants were randomly assigned to either the traditional (N = 48) or the non-

traditional woman condition (N = 51). The descriptions of the two women were adapted from Siebler et al. (2008). The following scales were included in the questionnaire:

Ambivalent Sexism Inventory (*ASI*, Glick & Fiske, 1996). Study 6 featured the German version of the ASI as developed by Eckes and Six-Materna (1999). Participants indicated their level of agreement on a 7-point Likert scale (1 = *strongly disagree*, 7 = *strongly agree*).

Relationship Scale (REL). I developed this 12 item measure to capture the (hypothetical) wish for a long-term relationship with a certain person (here: the traditional versus the non-traditional woman). Participants were asked to indicate their level of agreement on a 7-point Likert scale (1 = *strongly disagree* to 7 = *strongly agree*). Example items are "*I can imagine marrying a person like Julia*", "*I would be interested in going on a date with a person like Julia*" and "*I think a person like Julia and I would be a good match in a romantic relationship*". The full scale (in German) is available in Appendix C.

Data collection was scheduled for two days in September 2008. The researcher went from classroom to classroom and approached the participants during their time in class. For data collection purposes, the participants were exempt from their lessons. The researcher introduced herself and explained the purpose of the study and participants' rights. Subsequently, participants were supplied with the information sheet and the volunteer consent form. Participants then continued to complete the questionnaire in their own time. The questionnaire consisted of the Ambivalent Sexism Inventory (ASI), followed by the description of the traditional or the non-traditional woman. Participants were then asked to indicate to what extent they – hypothetically – would be interested in having a committed relationship with "Julia". Written debrief was given at the end of the questionnaire and

there was the possibility for a discussion with the researcher in each classroom. I gave a talk about the purpose of the study and the results in the assembly hall of the school on 17/12/2008. The talk was followed by an open question and answer session. Furthermore, the presentation accompanying the talk was made available to the participants and other interested parties on the World Wide Web (Thomae, 2008).

Results

Preliminary analyses.

Cronbach's alpha indicated acceptable internal consistencies for all measures (HS: α = .77, BS: α = .79, REL: α = .94). The mean of the HS subscale was 4.35 (*SD* = 0.90) and the mean of the BS subscale was 4.31 (*SD* = 1.06), i.e. the means of both subscales were somewhat above the scale midpoint. The results of the bivariate correlation analyses are shown in Table 12. In line with the findings by Glick and Fiske (1996), who found no significant correlation between HS and BS in an older, non-student sample of men, there was no significant correlation between HS and BS in this sample. This is also consistent with German data reported by Eckes and Six-Materna (1999). Eckes and Six-Materna (1999) found correlations close to zero for non-student men in their validation of the German ASI. There was a significant positive relationship between benevolent sexism and the wish for a relationship, indicating that the higher participants scored on BS, the more they were interested in a committed romantic relationship with Julia.

A principal component analysis on the REL items yielded two components according to the criterion of Eigenvalues greater than 1. Factor loadings ranged between .51 and .94 for Component 1 and between -.46 and .64 for Component 2. Generally, the three reverse coded items (REL 9, 10 & 11) loaded on Component 2 whereas all other items loaded on

Component 1 (see Appendix C). This finding was somewhat surprising since all REL items were expected to conceptually measure the same construct.

Table 12

Correlations among the measures of HS, BS and REL (N = 99)

	HS	BS	REL
HS	-		
BS	.10	-	
REL	-.04	.28**	-

Note. ** Correlation is significant at $p < .01$ (two-tailed).

Main analysis.

A hierarchical regression analysis investigated the impact of experimental condition (female subtype: traditional – high warmth, low competence – or non-traditional – low warmth, high competence), HS and BS on REL. As proposed by Jaccard and Turrisi (2003), all variables were centred prior to the computation of the interaction terms. Condition, HS and BS were entered into the regression model in the first step. In the second step, the interaction terms between HS and BS, HS and condition and BS and condition were entered into the model and in the final step, the three-way interaction between HS, BS and condition was entered into the analysis.

The analysis yielded a significant main effect of BS on REL, indicating that higher BS scores predict a stronger wish for a romantic relationship with either type of woman. None of the other predictors entered in the first step (HS, condition) reached significance. The expected two-way interaction terms between BS and condition and HS and condition also

failed to reach significance, as did the three-way interaction term. An overview of the exact results of the analysis can be found in Table 13.

Table 13

Regression analysis of the effects of HS, BS and Condition on REL (N = 99)

Regression Step		*B*	*SE B*	β	*T*	*p*
Step 1	$R^2 = .10$					
	HS	-0.13	0.16	-.08	-0.84	.401
	BS	0.41	0.13	.30	3.08	.003
	Condition	-0.16	0.14	-.11	-1.11	.268
Step 2	$\Delta R^2 = .03$					
	HS	-0.07	0.16	-.05	-0.44	.664
	BS	0.40	0.13	.30	3.04	.003
	Condition	-0.14	0.14	-.10	-1.01	.314
	HS x BS	-0.03	0.15	-.02	-0.22	.828
	HS x Condition	-0.15	0.17	-.10	-0.92	.363
	BS x Condition	-0.19	0.13	-.14	-1.47	.145
Step 3	$\Delta R^2 = .00$					
	HS	-0.06	0.17	-.04	-0.38	.703
	BS	0.40	0.13	.30	3.02	.003
	Condition	-0.14	0.14	-.10	-0.98	.331
	HS x BS	-0.03	0.16	-.02	-0.16	.876
	HS x Condition	-0.15	0.17	-.10	-0.91	.364
	BS x Condition	-0.20	0.13	-.14	-1.47	.146
	HS x BS x Condition	-0.03	0.16	-.02	-0.18	.855

A simple slopes analysis yielded no significant relationship between HS and REL, neither in the traditional woman condition ($\beta = .07$, $t\ (46) = 0.50$, $p = .622$), nor in the non-traditional woman condition ($\beta = -.16$, $t\ (49) = -1.15$, $p = .255$). However, consistent with

the hypothesis, simple slopes analyses for the BS x Condition interaction yielded a significant relationship between BS and REL in the traditional woman condition ($\beta = .42$, t (46) = 3.10, $p = .003$). This relationship was not significant in the non-traditional woman condition ($\beta = .14$, t (49) = 1.01, $p = .320$). The pattern of results can be seen in Figure 1.

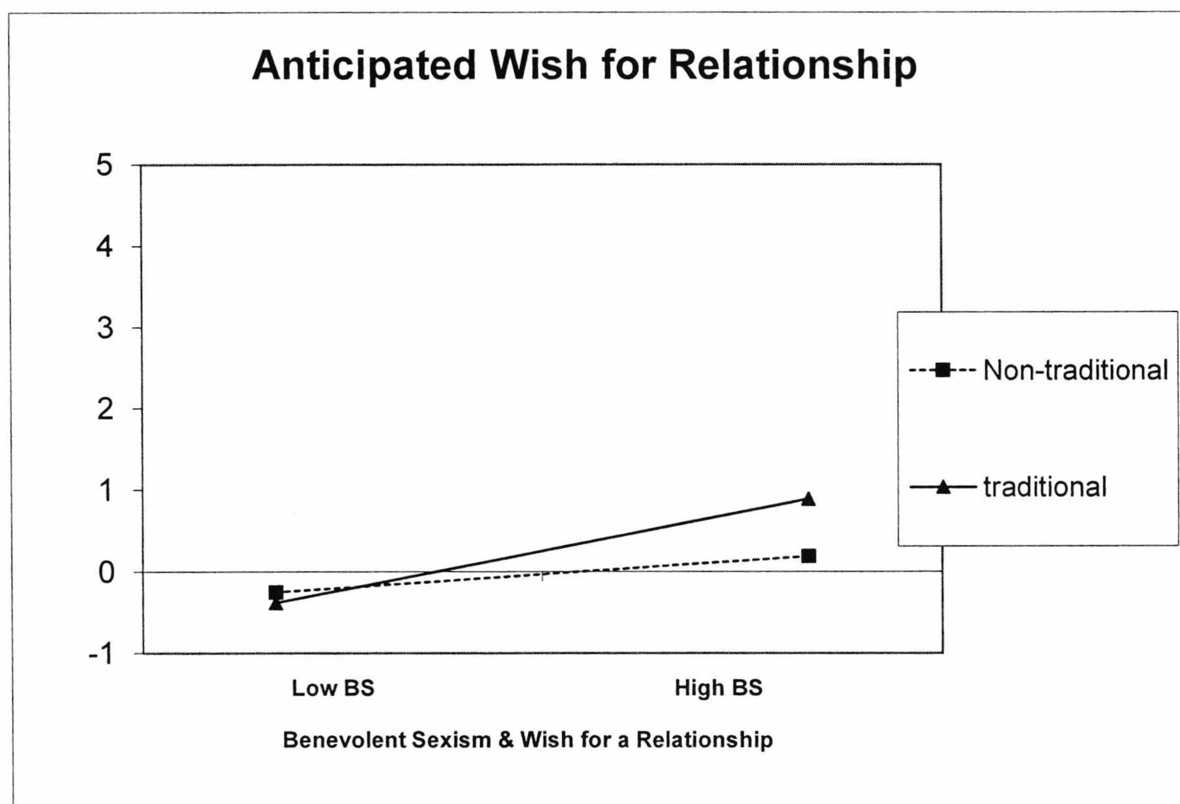

Figure 1. The effects of BS and Condition on REL.

Discussion

The findings of Study 6 are partially consistent with the hypothesis and the pre-existing literature. Study 6 uncovered a significant main effect of benevolent sexism on male participants' wish for a romantic relationship. This should be considered to be of

correlational nature, especially since the interaction term between benevolent sexism and condition failed to reach significance. Simple slopes analyses revealed a significant relationship between benevolent sexism and the wish for a relationship in the traditional woman condition but not in the non-traditional woman condition. This allows for some optimism regarding the hypothesis that initial sexism levels impact on partner preferences and not vice versa. However, none of the analyses involving hostile sexism yielded significant results. This finding is consistent with Chen et al.'s (2009) argument that benevolent sexism has an impact on the initial stages of romantic attraction whereas hostile sexism impacts on marital norms at later stages of the relationship. A limitation of Study 6 is that only one dependent variable was assessed using a measurement instrument which I developed, and which has neither been validated nor used in previous research. Thus, Study 7 will be a conceptual replication of Study 6 but will extend Study 6 by including further dependent variables measured with more established measurement instruments.

General Discussion

The aim of Studies 1 to 4 and 6 was to establish the link between ambivalent sexism and cross-gender contact and to ascertain the causal sequence of this link. In contrast to Chapters 3 and 4, Chapter 5 proposed that the causal sequence of this link might operate in a way such that sexist ideologies impact on romantic partner preferences, thus, pre-existing prejudice may be shaping contact experiences. In order to make this theoretical argument, I relied on the propositions of social role theory (Eagly, 1987, Eagly & Wood, 1999) and the stereotype content model (e.g. Fiske et al., 2002).

Study 5 generally supports the argument that the traditional woman presented by Siebler

et al. (2008) is warmer but less competent than the non-traditional woman and that the traditional woman is perceived as significantly more warm than competent while the non-traditional woman is perceived as more competent than warm. The findings of Study 6 are cautiously supportive of the hypothesis and in line with findings from previous research (Chen et al., 2009; Eastwick et al., 2006; Glick et al., 1997; Johannesen-Schmidt & Eagly, 2002; Lee et al., 2010b; Travaglia et al., 2009). However, the two-way interaction terms in Study 6 are all non-significant and the main effect of benevolent sexism on the wish for a relationship is correlational in nature. Hence, Study 6 does not conclusively answer the causal sequence question discussed throughout this thesis.

Using the female subtypes provided by Siebler et al. (2008) transferred the question of male – female cross-group contact from an intergroup to an interpersonal level. This is particularly important as the attempt to theoretically link ambivalent sexism theory and the contact hypothesis in the context of romantic relationships calls for a transition between these two levels. However, the artificial nature of the woman 'Julia' introduced to the participants may have led participants to respond to her on the basis of her specific (sub)group membership. Study 9 will address this limitation by assessing participants' actual partner preferences and the quality of their actual romantic relationships. Chapter 6 will extend the findings of Chapter 5 in two ways: Study 7 will include anticipated relationship satisfaction (Hendrick, 1988) and Islam and Hewstone's (1993) contact quality measure. This will provide an opportunity for cross-validation of the REL measure and extend the research to more dependent variables. In addition, Study 8 will reinforce the experimental procedures used in Studies 6 and 7 by relying on a procedure based on the imagined contact paradigm (Crisp, Stathi, Turner & Husnu, 2009).

Chapter 6:

Ambivalent Sexism, Partner Preferences and Anticipated Contact Quality

The findings of Study 6 indicated a trend towards benevolent sexism (BS) predicting romantic preferences for a traditional partner in men. This chapter reports two studies that further investigate the link between men's ambivalent sexism, partner preferences and contact quality. Participants were presented with fictitious descriptions of either a traditional or a non-traditional woman 'Julia' (Siebler et al., 2008) and asked to indicate to what extent they would be interested in having a romantic relationship with 'Julia' and how they anticipated their relationship satisfaction and the contact quality of this relationship. Study 7 found that BS was positively related to a romantic preference for the traditional woman and higher anticipated relationship satisfaction and contact quality. In addition, the relationship between the preferences for the traditional woman was fully mediated by positive anticipations of relationship satisfaction. In contrast, Study 8 utilised Crisp et al.'s (2008) imagined contact paradigm. The results indicated that higher levels of hostile sexism (HS) predicted a lack of romantic interest in the non-traditional woman and the anticipation of negative contact quality with her. Similar to Study 7, the link between HS and rejection of a non-traditional romantic partner was fully mediated by anticipation of low contact quality.

Introduction

The literature discussed in Chapter 5 supports the argument that sexism predicts cross-group contact, indicating that higher sexism levels are linked to stronger preferences of traditional romantic partners. Yet in Study 6 the interaction term between benevolent sexism and experimental condition failed to reach significance. Moreover, the research cited in Chapter 5 is of correlational nature. Study 5 provided evidence that the traditional woman 'Julia' was perceived as significantly more warm than competent and the non-traditional woman 'Julia' as significantly more competent than warm. Moreover, the traditional woman was rated as significantly warmer but less competent than the non-traditional woman. Since Siebler et al. (2008) conceptualised these two fictitious women as 'traditional' versus 'non-traditional' and the findings of Study 5 were in line with the arguments by Glick and Fiske (1999b), these materials were used to represent the two female subtypes in Study 6.

Study 6 presented quasi-experimental evidence that benevolent sexism impacts on the wish to have a romantic relationship (main effect) and yielded a non-significant interaction effect between benevolent sexism and condition. Further analyses showed a strong and significant link between benevolent sexism and the wish for a relationship in the traditional woman condition but not in the non-traditional woman condition. A limitation of Study 6 is that the REL scale measures romantic interest but is not directly related to the question of causal sequence. Studies 2 and 3 used Islam and Hewstone's (1993) contact quality measure to assess cross-group contact. As Study 6 stands, it is unrelated to the earlier studies in this thesis and further research is needed to establish the causality of the sexism – contact link. For that reason, both studies in this chapter will include the contact quality

measure by Islam and Hewstone (1993). Assessing contact quality in Studies 7 and 8 will allow linking these studies with the research presented in Chapters 3 and 4.

In addition, Study 7 will incorporate a measure of relationship satisfaction (Relationship Assessment Scale, RAS, Hendrick, 1988; German adaptation by Hassebrauck, 1991). The inclusion of this additional measure is rooted in the fact that the REL measure used in Study 6 has neither been used in previous research nor has it been validated. Moreover, including the RAS (as well as QAC) will allow for testing the idea that men endorse or reject the idea of having a relationship with sub-types of women based on their assessments of the relationship quality and satisfaction they might experience in this relationship. The RAS was developed to assess romantic relationships in general (i.e. not just marital relationships) and to gauge feelings, thoughts and behaviours within relationships. Hendrick (1988) provided evidence that the RAS is consistently related to other relevant measures and constructs and can effectively discriminate between couples who stay together versus couples who split apart. However, there are no further theoretical underpinnings to the RAS. The RAS is especially suitable for the current research because of its brevity and ease of application.

Study 7

The present research

Like Study 6, Study 7 quasi-experimentally investigated whether the causal sequence between cross-gender contact and ambivalent sexist ideology operates in such a way that sexist ideology shapes men's romantic partner preferences, utilising Siebler et al.'s (2008) traditional and non-traditional female subtypes. Study 7 also expands the findings of Study

6 by adding cross-group contact quality (QAC, Islam & Hewstone, 1993) and relationship satisfaction (RAS, Hendrick, 1988) as dependent variables. Adding contact quality as a dependent variable will link this chapter to the major theme of the preceding chapters of this thesis.

I hypothesise that hostile sexism but not benevolent sexism will be significantly and negatively related to cross-group contact quality (see Studies 2 & 3). Benevolent sexism should predict preferences for a traditional (high warmth, low competence) partner and high anticipated relationship satisfaction with this traditional partner (see Glick et al., 1997). In contrast, hostile sexism should predict the rejection of a non-traditional female partner (low warmth, high competence) and low anticipated relationship satisfaction (see Glick et al., 1997). Furthermore, Study 7 aims to explore the combined impact of sexist ideology and experimental condition (traditional versus non-traditional woman) on cross-group contact quality.

Method

Participants.

One hundred and ten male former soldiers from the German Federal Armed Forces at the Bundeswehrfachschule Naumburg participated. Participants' ages ranged from 25 to 38, with 89% of the sample being 32 years old or younger. The average age was 29.76 years (*SD* = 2.54). All participants were Caucasians of German nationality. Twenty percent of the participants indicated that they were single, 52% reported living in a relationship but not being married, 24% were married, 1.8% were separated and 1.8% choose the “other”

response option. About half of the sample (46%) reported having children; the number of children ranged from one to three children.

Design, measures and procedure.

Study 7 featured the same design as Study 6, including the wish for a relationship, anticipated relationship satisfaction and contact quality as dependent variables. Participants were randomly assigned to either the traditional (N = 55) or the non-traditional (N = 58) woman condition. The descriptions of the two hypothetical women were the same as in Study 6.

Relationship Assessment Scale (RAS, Hendrick, 1988; Hassebrauck, 1991). Hypothetical relationship satisfaction was measured using Hassebrauck's (1991) German translation of the Relationship Assessment Scale (RAS) by Susan Hendrick (1988). The RAS is a 7-item measure assessing relationship satisfaction in close romantic relationships. Example items are *"How good is your relationship compared to most?"* or *"How often do you wish you hadn't gotten into this relationship?"* Examples of items used in the study are *"How good would your relationship with Julia be compared to most?"* and *"How often would you wish you hadn't gotten into this relationship with Julia?"* The full adapted scale used in this study can be found in Appendix D. A 5-point Likert scale was used to measure participants' responses.

Other measures. As in Study 6, individual differences in hostile and benevolent sexism were assessed using the German adaption Ambivalent Sexism Inventory by Eckes and Six-Materna (1999). Furthermore, I translated the QAC scale by Islam and Hewstone (1993) –

used in Studies 2 and 3 – into German (see Appendix E). Finally, as in Study 6, the measure for the hypothetical wish for a relationship with Julia (REL) was used. A 7-point Likert scale accompanied all of the above measures.

The procedure for Study 7 was exactly the same as for Study 6, as the data for both studies were collected during the same two days of data gathering at the same institution. The only difference between the two studies was that the data collection for Study 7 also included the RAS and the QAC.

Results

Preliminary analyses.

Cronbach's alpha indicated acceptable internal consistencies for all measures (HS: α = .81, BS: α = .78, RAS: α = .89, QAC: α = .86, REL: α = .95). The mean of the HS subscale was 4.67 (*SD* = 0.85) and the mean of the BS subscale was 4.55 (*SD* = 0.94) i.e. the means of both subscales were to some extent above the midpoint of the scale. There were no significant correlations between HS and BS or between HS and RAS/REL. The correlation between HS and QAC was not significant either, even though it was in the expected (negative) direction. Benevolent sexism was not related to any of the other measures. Relationship satisfaction (RAS), contact quality (QAC) and the hypothetical wish for a relationship (REL) were highly and significantly correlated (see Table 14).

Table 14

Correlations between measures of HS, BS, RAS, QAC and REL (N = 110)

	HS	BS	RAS	QAC	REL
HS	-				
BS	.02	-			
RAS	.01	.08	-		
QAC	-.16	.08	.78**	-	
REL	-.04	.12	.85**	.77**	-

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

Main analyses.

Wish for a relationship with Julia (REL).

Hierarchical regression analyses were conducted for all three dependent variables, following the same principle as the analysis presented in Study 6. There were no main effects for HS, BS or experimental condition on REL. However, there was a significant interaction between BS and condition in the second step of the regression analysis. None of the other predictors turned out significant (all *ps* > .100). The findings are shown in Table 15.

Simple slopes analyses yielded a significant relationship between BS and the wish for a relationship in the traditional woman condition ($\beta = .35$, t (50) = 2.66, $p = .010$), but no such relationship was obtained in the non-traditional woman condition ($\beta = -.07$, t (56) = -0.49, $p = .625$; see Figure 2).

Table 15

Regression analysis of the effects of HS, BS and Condition on REL (N = 110)

Regression Step		*B*	*SE B*	β	*T*	*p*
Step 1	$R^2 = .03$					
	HS	-0.22	0.18	-.12	-1.23	.222
	BS	0.24	0.16	.15	1.48	.141
	Condition	-0.05	0.15	-.04	-0.36	.718
Step 2	$\Delta R^2 = .08$					
	HS	-0.22	0.17	-.13	-1.26	.211
	BS	0.29	0.16	.17	1.76	.082
	Condition	-0.05	0.15	-.03	-0.34	.736
	HS x BS	0.19	0.18	.11	1.08	.282
	HS x Condition	-0.02	0.18	-.01	-0.10	.917
	BS x Condition	-0.43	0.16	-.26	-2.67	.009
Step 3	$\Delta R^2 = .00$					
	HS	-0.20	0.18	-.12	-1.14	.257
	BS	0.28	0.16	.17	1.70	.093
	Condition	-0.04	0.15	-.03	-0.29	.771
	HS x BS	0.19	0.18	.11	1.07	.287
	HS x Condition	-0.02	0.18	-.01	-0.12	.904
	BS x Condition	-0.44	0.16	-.27	-2.69	.009
	HS x BS x Condition	-0.07	0.18	-.04	-0.40	.687

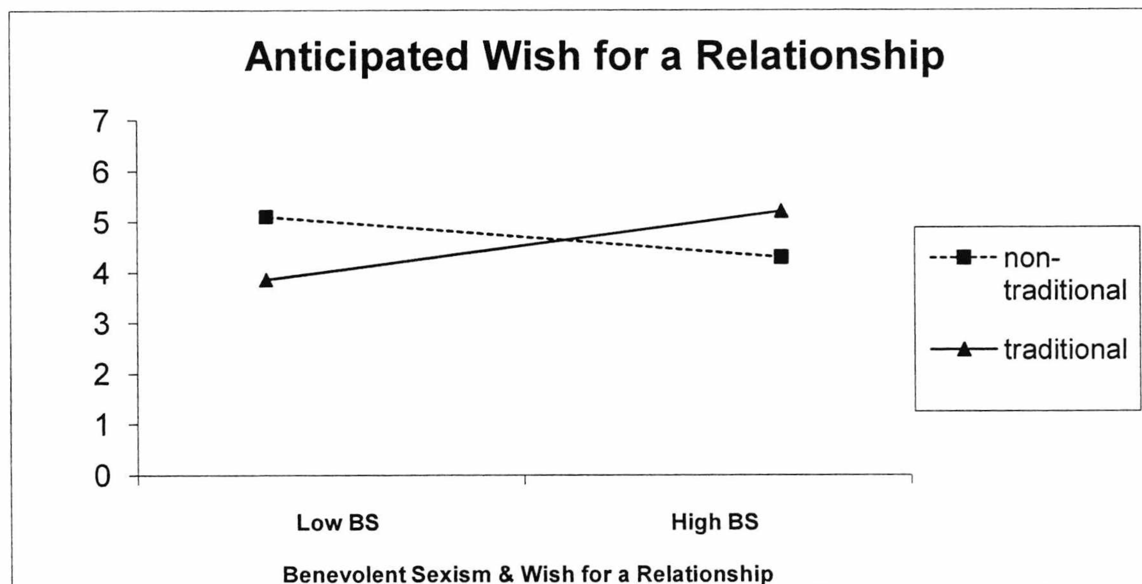

Figure 2. The effects of BS and Condition on REL.

Anticipated relationship satisfaction (RAS).

A hierarchical regression analysis yielded no significant main effects of HS, BS or condition on RAS. However, there was a significant interaction between BS and condition (see Table 16). Simple slopes analyses revealed a strong significant link between BS and RAS in the traditional woman condition ($\beta = .34$, $t\ (50) = 2.55$, $p = .014$) but no such effect in the non-traditional woman condition ($\beta = -.12$, $t\ (56) = -0.90$, $p = .374$). Figure 3 shows that the higher an individual's level of BS, the higher is the anticipated relationship satisfaction in a hypothetical relationship with the traditional woman.

Table 16

Regression analysis of the effects of HS, BS and Condition on RAS (N = 110)

Regression Step		*B*	*SE B*	β	*T*	*p*
Step 1	$R^2 = .03$					
	HS	-0.06	0.09	-.07	-0.72	.471
	BS	0.09	0.08	.11	1.07	.287
	Condition	-0.10	0.07	-.12	-1.20	.232
Step 2	$\Delta R^2 = .10$					
	HS	-0.06	0.08	-.07	-0.71	.479
	BS	0.10	0.08	.13	1.29	.201
	Condition	-0.08	0.07	-.12	-1.17	.246
	HS x BS	0.07	0.09	.08	0.80	.424
	HS x Condition	-0.03	0.09	-.04	-0.37	.715
	BS x Condition	-0.24	0.08	-.30	-3.06	.003
Step 3	$\Delta R^2 = .00$					
	HS	-0.06	0.09	-.07	-0.69	.490
	BS	0.10	0.08	.13	1.28	.206
	Condition	-0.08	0.07	-.12	-1.16	.251
	HS x BS	0.07	0.09	.08	0.80	.426
	HS x Condition	-0.03	0.09	-.04	-0.36	.717
	BS x Condition	-0.24	0.08	-.30	-.2.98	.004
	HS x BS x Condition	0.00	0.09	.00	0.02	.988

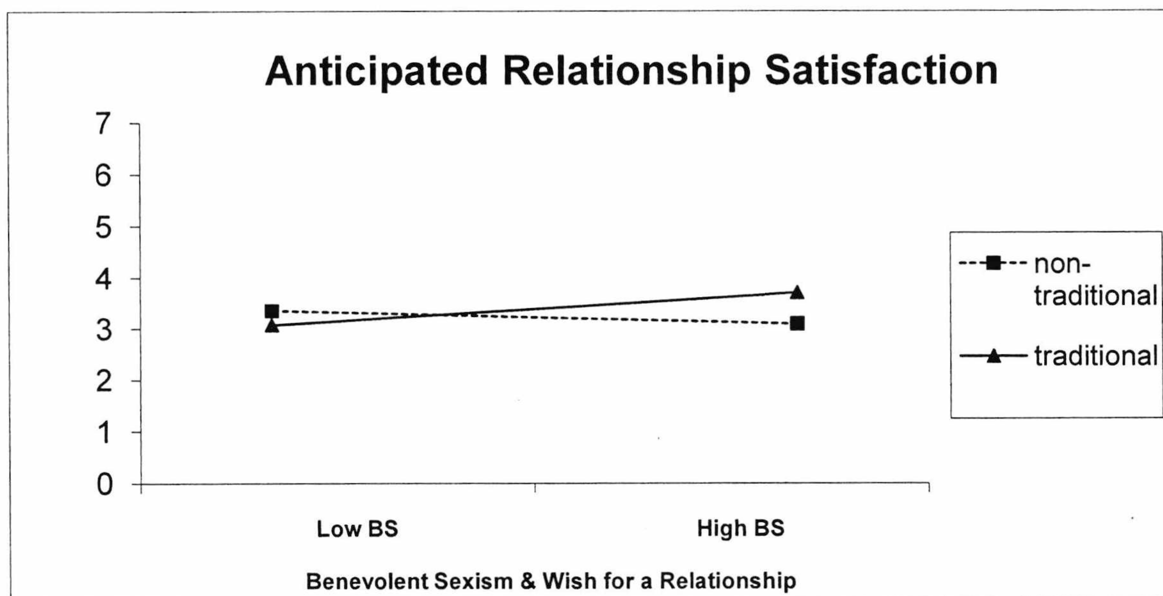

Figure 3. The effects of BS and Condition on RAS.

Contact quality (QAC).

A final hierarchical regression analysis yielded a significant main effect of HS on QAC, but neither the BS nor the condition main effect reached significance. In line the analyses on REL and RAS, there was a significant interaction between BS and condition, but none of the other interaction terms turned out significant. The results can be found in more detail in Table 17.

Simple slopes analyses revealed a marginally significant relationship between BS and QAC in the traditional woman condition ($\beta = .25$, t (50) = 1.83, $p = .074$) but no such relationship in the non-traditional woman condition ($\beta = -.03$, t (56) = -0.23, $p = .818$). These findings are generally consistent with the findings for REL and RAS as dependent variables. The results are shown in Figure 4.

Table 17

Regression analysis of the effects of HS, BS and Condition on QAC (N = 110)

Regression Step		*B*	*SE B*	β	*T*	*p*
Step 1	$R^2 = .09$					
	HS	-0.37	0.13	-.28	-2.82	.006
	BS	0.19	0.12	.15	1.55	.124
	Condition	-0.10	0.12	-.09	-0.90	.368
Step 2	$\Delta R^2 = .06$					
	HS	-0.37	0.13	-.28	-2.82	.006
	BS	0.21	0.12	.17	1.73	.087
	Condition	-0.10	0.11	-.08	-0.87	.387
	HS x BS	0.09	0.14	.07	0.70	.484
	HS x Condition	-0.03	0.13	-.02	-0.23	.818
	BS x Condition	-0.30	0.12	-.24	-2.50	.014
Step 3	$\Delta R^2 = .00$					
	HS	-0.36	0.13	-.27	-2.66	.009
	BS	0.21	0.12	.16	1.67	.098
	Condition	-0.09	0.11	-.08	-0.82	.415
	HS x BS	0.09	0.14	.07	0.69	.489
	HS x Condition	-0.03	0.13	-.02	-0.25	.806
	BS x Condition	-0.31	0.12	-.24	-2.52	.013
	HS x BS x Condition	-0.05	0.14	-.04	-0.39	.696

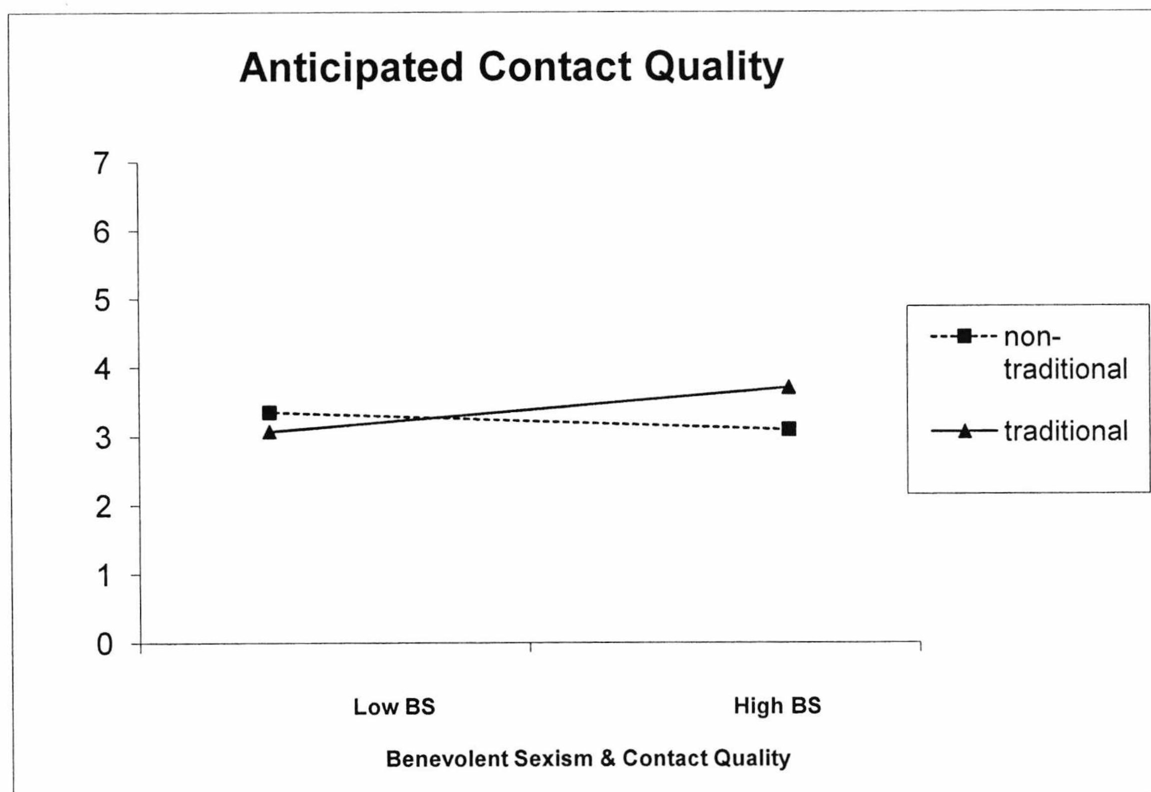

Figure 4. The effects of BS and Condition on QAC.

Mediation analysis.

A mediation analysis as outlined by Baron and Kenny (1986) investigated whether the relationship between BS and REL in the traditional woman condition was mediated by anticipated relationship satisfaction. According to Baron and Kenny (1986), the first step is to regress the mediator (RAS) on the predictor variable (BS). This relationship turned out to be significant ($\beta = .34$, t (50) = 2.55, $p = .014$). In the second step, REL (DV) was regressed on BS (IV), yielding a significant result ($\beta = .35$, t (50) = 2.66, $p = .010$). Thirdly, the DV (REL) was regressed on the mediator (RAS), showing that RAS strongly predicted REL (β

= .84, t (50) = 10.78, $p < .001$). Finally, when BS and the RAS were entered simultaneously into the regression equation, the link between BS and the REL was reduced to non-significance ($\beta = .08$, t (49) = 0.94, $p = .351$). In contrast, RAS remained significant ($\beta = .81$, t (49) = 9.81, $p < .001$). A Sobel z-test revealed that the effect of BS on the REL was significantly reduced after taking RAS into account ($z = 2.48$, $p = .013$), indicating that the relationship between BS and REL is fully mediated by RAS.

Discussion

The findings of Study 7 are consistent with the hypotheses and the existing literature (e.g. Chen et al., 2009; Eastwick et al., 2006; Johannesen-Schmidt & Eagly, 2002). Study 7 provides evidence that benevolent sexism predicts romantic partner preferences and anticipated relationship satisfaction. Furthermore, Study 7 explored the combined impact of sexist ideology and experimental condition on cross-gender contact quality and revealed an effect similar to the effect on the other two dependent variables. However, except for the expected negative main effect on contact quality, hostile sexism did not significantly predict any of the three dependent variables. Nevertheless, the data of Study 7 revealed strong positive and significant correlations between the three dependent variables: The (hypothetical) wish for a relationship (REL), (anticipated) relationship satisfaction (RAS) and (anticipated) contact quality (QAC).

Study 7 extends the findings of Study 6 by including anticipated relationship satisfaction and anticipated cross-group contact quality as additional dependent variables and replicating the interaction effect between benevolent sexism and experimental condition across these different outcome variables. In addition, Study 7 provides evidence that men

high in benevolent sexism want a relationship with a traditional woman because they expect high relationship satisfaction. Given that this hypothetical traditional woman possesses the 'feminine' characteristic of being warm, this is not surprising. It is, in fact, in line with Antill's (1983) finding that femininity is a key ingredient to marital happiness.

The significant negative link between hostile sexism and cross-group contact quality found in Studies 2 and 3 was replicated here. However, as this link is represented as a main effect, it is correlational in nature. Yet the findings of Study 7 do allow for some conclusions by providing evidence that benevolent sexism impacts on partner preferences. As the design used in Study 7 is quasi-experimental and since neither form of sexism was manipulated, the causal conclusions need to be drawn with caution. Moreover, Study 7 does not clarify the direction the cross-group contact quality – hostile sexism relationship. Thus, Study 8 will replicate the procedure used in Studies 6 and 7 but intensify the experimental manipulation by adopting parts of the imagined contact paradigm introduced by Crisp et al. (2008).

Study 8

The present research

So far, no evidence was produced that hostile sexism either results in the rejection of a non-traditional romantic partner or that good quality contact reduces hostile sexism. Crisp et al. (2008) argue that imagining social scenarios can influence attitudes and behaviour. More specifically, the imagined intergroup contact paradigm includes the mental simulation of a social interaction between an ingroup and an outgroup member and should activate concepts that are normally associated with successful interactions between group members

(Crisp et al., 2008). The basic imagined contact instruction includes asking participants to "take a minute to imagine yourself meeting [an outgroup] stranger for the first time." Participants are further instructed to "imagine that the interaction is positive, relaxed and comfortable" (Crisp et al., 2008, p. 5). Crisp et al.'s (2008) imagined contact paradigm is – in part – based on findings by Blair et al. (2001). With reference to implicit gender stereotypes, Blair et al. (2001) found that participants who engaged in counterstereotypic mental imagery, imagining a strong woman, showed less implicit gender stereotyping than control groups. However, in cases when the imagery matched the implicit stereotype, stereotyping was significantly increased (Blair et al., 2001; Experiment 3).

Study 8 will address the question whether ambivalent sexism predicts romantic partner preferences but will increase the intensity of the experimental manipulation of 'meeting Julia' by employing the technique suggested in the imagined contact paradigm (e.g. Crisp et al., 2008). I expect that benevolent sexism will predict the preference for a traditional romantic partner. With reference to hostile sexism and non-traditional women, two competing hypotheses arise from the literature: In line with social role theory, there should be a link between hostile sexism and the rejection of a non-traditional partner. This can be expected due to the enhanced experience of 'contact' with a woman whom sexist men might perceive as unpleasant to begin with. In contrast, according to the imagined contact paradigm, imagining a 'positive, relaxed and comfortable' interaction with a non-traditional woman should challenge men's sexism. Thus, highly hostile sexist men might overcome their initial rejection of dating a non-traditional partner. In this case, there should either be no significant interaction between HS and experimental condition or an interaction effect that indicates a preference for a non-traditional partner.

Method

Participants.

A convenience sample of 73 heterosexual male former soldiers from the German Federal Armed Forces, enrolled at the Bundeswehrfachschule in Cologne/Germany, volunteered to participate in this study. Participants' age ranged from 24 to 36 years with an average age of 30.78 (*SD* = 2.23). Eighty-five percent of the men were 32 years old or younger. Of the participants, 13.7% were single, 34.2% were in a relationship but not married, 41.1% were married, 5.5% were separated and another 5.5% choose the “other” category in response to the question about their relationship status. Forty-three percent of the participants had children. The participants reporting to have children had up to 2 children. All participants were Caucasian and of German nationality.

Design, measures & procedure.

A quasi-experimental between-subjects design used HS, BS and condition (traditional vs. non-traditional woman) as independent variables and REL and QAC as dependent variables. Participants were randomly assigned to the traditional woman condition (N = 37) and the non-traditional woman condition (N = 36). Like in Studies 6 and 7, participants completed the German version of the Ambivalent Sexism Inventory (Eckes & Six-Materna, 1999) and the relationship scale (REL). Participants were required to indicate their level of agreement on a 7-point Likert-type scale (1 = *strongly disagree* to 7 = *strongly agree*). Participants also completed the German translation of the contact quality scale (QAC, Islam & Hewstone, 1993).

Data collection took place as a group session in the school assembly hall. Participants completed the volunteer consent form, the demographic information section and the ASI. They then read the description of one of the two women (traditional vs. non-traditional). Immediately afterwards, the questionnaire asked the participants to follow the instructions by Crisp et al. (2008): "We would like you to take a minute to imagine yourself meeting Julia for the first time. Imagine that the interaction is positive, relaxed and comfortable." Participants were then asked to describe in up to five bullet points what they imagined. The questionnaire concluded with the REL and QAC scales and a debriefing sheet, which remained with the participants. All participants were given the option to discuss the study experience with the researcher. I gave a presentation of the results at the school on 28/05/2009 (Thomae, 2009).

Results

Preliminary analyses.

Cronbach's alpha revealed acceptable internal consistencies for all measures (HS: α = .83, BS: α = .76, REL: α = .95, QAC: α = .87). The mean of the HS subscale was 4.17 (*SD* = 1.00) and the mean of the BS subscale was 4.31 (*SD* = 0.91) indicating that the means of both subscales were slightly above the scale midpoint. Correlation analyses yielded no significant relationship between HS and BS but a significant negative relationship between HS and QAC and significant positive relationships between BS and REL, BS and QAC, and REL and QAC (see Table 18).

Table 18

Correlations between HS, BS, REL and QAC (N = 73)

	HS	BS	REL	QAC
HS	-			
BS	-.00	-		
REL	-.13	.44**	-	
QAC	-.30**	.40**	.81**	-

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

Main analyses.

Wish for a relationship (REL).

For the wish for a relationship, hierarchical regression analysis yielded a significant main effect of BS and a significant HS by condition interaction. The findings of this analysis are presented in Table 19. Simple slopes analyses revealed a significant negative relationship between HS and REL in the non-traditional woman condition ($\beta = -.49$, $t(35) = -3.24$, $p = .003$), which was not significant in the traditional woman condition ($\beta = .15$, $t(36) = 0.91$, $p = .368$; see Figure 5).

Table 19

Regression analysis of the effects of HS, BS and Condition on REL (N = 73)

Regression Step		*B*	*SE B*	β	*T*	*p*
Step 1	$R^2 = .22$					
	HS	-0.21	0.16	-.15	-1.37	.176
	BS	0.67	0.17	.42	3.94	.000
	Condition	0.17	0.16	.12	1.07	.289
Step 2	$\Delta R^2 = .08$					
	HS	-0.23	0.15	-.16	-1.51	.135
	BS	0.62	0.16	.40	3.78	.000
	Condition	0.17	0.15	.12	1.10	.276
	HS x BS	0.11	0.17	.07	0.63	.528
	HS x Condition	0.41	0.15	.28	2.71	.009
	BS x Condition	0.10	0.17	.06	0.57	.568
Step 3	$\Delta R^2 = .00$					
	HS	-0.22	0.15	-.15	-1.45	.153
	BS	0.64	0.17	.41	3.81	.000
	Condition	0.17	0.15	.12	1.09	.279
	HS x BS	0.07	0.18	.05	0.41	.683
	HS x Condition	0.40	0.15	.28	2.65	.010
	BS x Condition	0.09	0.17	.06	0.56	.579
	HS x BS x Condition	0.11	0.18	.07	0.60	.548

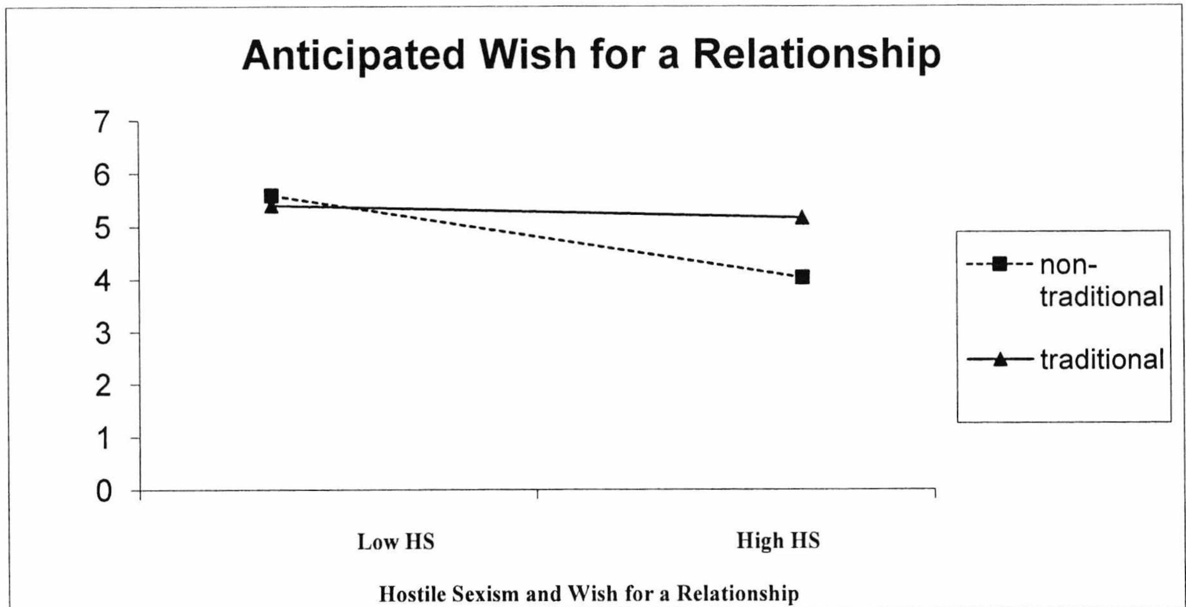

Figure 5. The effects of HS and Condition on REL.

Contact quality (QAC).

Hierarchical regression analysis for QAC revealed a significant main effect of HS, a significant main effect of BS, a marginally significant main effect of experimental condition, a significant interaction between HS and BS and a significant interaction between HS and experimental condition. Table 20 shows the results in detail.

Simple slopes analyses for these interaction terms revealed that for men low in BS, HS significantly and negatively predicted contact quality (β = -.42, t (33) = -2.67, p = .012), which was not the case for men high in BS (β = -.18, t (35) = -1.08, p = .289). With reference to the interaction between HS and experimental condition, simple slopes analyses yielded a significant negative relationship between HS and QAC in the non-traditional woman condition (β = -.56, t (35) = -3.95, p = .000), but not in the traditional woman condition (β = -.09, t (36) = -0.52, p = .606).

Table 20

Regression analysis of the effects of HS, BS and Condition on QAC (N = 73)

Regression Step		*B*	*SE B*	β	*T*	*p*
Step 1	$R^2 = .29$					
	HS	-0.43	0.13	-.34	-3.26	.002
	BS	0.53	0.15	.37	3.65	.001
	Condition	0.25	0.13	.20	1.91	.061
Step 2	$\Delta R^2 = .10$					
	HS	-0.45	0.13	-.34	-3.51	.001
	BS	0.51	0.14	.36	3.69	.000
	Condition	0.23	0.13	.18	1.83	.071
	HS x BS	0.31	0.14	.22	2.22	.030
	HS x Condition	0.33	0.13	.25	2.56	.013
	BS x Condition	0.01	0.14	.01	0.06	.956
Step 3	$\Delta R^2 = .02$					
	HS	-0.46	0.13	-.36	-3.65	.001
	BS	0.48	0.14	.34	3.41	.001
	Condition	0.23	0.13	.18	1.85	.069
	HS x BS	0.38	0.15	.26	2.56	.013
	HS x Condition	0.34	0.13	.26	2.66	.010
	BS x Condition	0.01	0.14	.01	0.09	.933
	HS x BS x Condition	-0.21	0.15	-.14	-1.40	.168

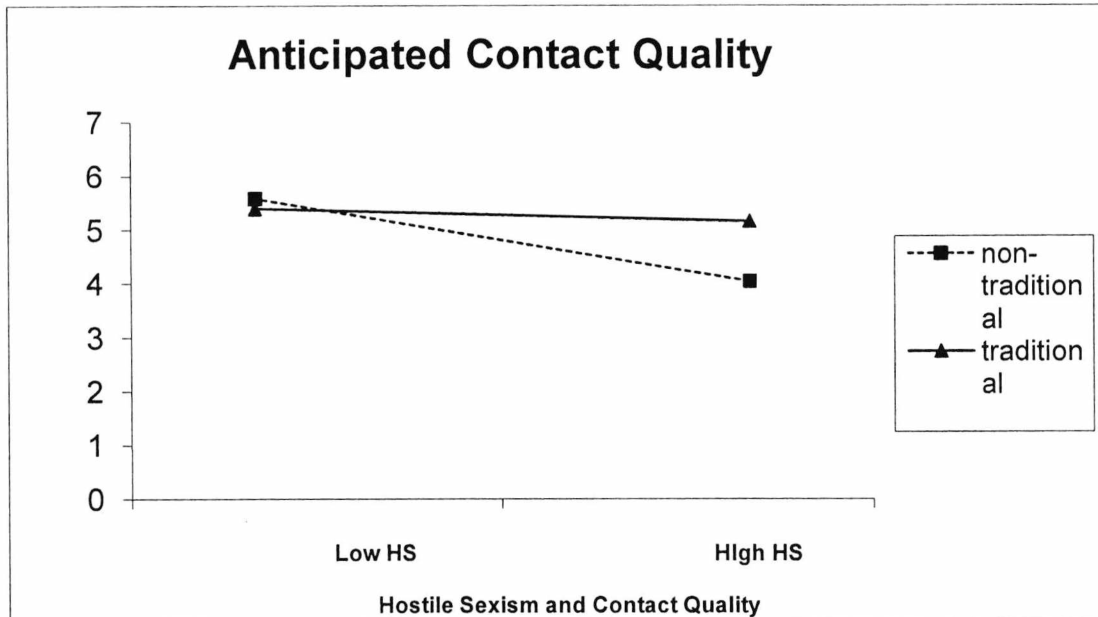

Figure 6. The effects of HS and Condition on QAC.

Mediation analysis.

A mediation analysis investigated whether the relationship between HS and REL in the non-traditional woman condition was mediated by anticipated contact quality. First, HS significantly predicted QAC (β = -.56, t (34) = -3.95, p < .001). Second, HS also significantly predicted REL (β = -.49, t (34) = -3.24, p = .003). Third, REL was regressed on the mediator (QAC), showing that QAC strongly predicted REL (β = .79, t (34) = 7.62, p < .001). When HS and QAC were entered simultaneously into the regression equation, the relationship between HS and REL was reduced to non-significance (β = -.06, t (33) = -0.46, p = .651) but QAC remained significant (β = .76, t (33) = 5.98, p < .001). A Sobel test (Sobel, 1982) revealed that the effect of HS on REL was significantly reduced after taking QAC into account (z = -3.33, p < .001), demonstrating that the relationship between HS and REL is fully mediated by QAC.

Discussion

With regard to benevolent sexism, the findings of Study 8 are somewhat surprising. For neither of the dependent variables, the interaction between BS and condition reached significance and both standardised Betas are close to zero. However, the findings for hostile sexism are in line with the predictions of social role theory, indicating that hostile sexist men reject the idea of having a relationship with a non-traditional woman. According to Study 8, hostile sexists seem to expect low levels of contact quality in a relationship with a non-traditional woman. Moreover, with respect to contact quality, benevolent sexism appears to function as a buffer: Men low in benevolent sexism expect lower contact quality the higher their hostile sexism levels are. This was not true for men high in benevolent sexism. Moreover, benevolent sexism and contact quality were significantly positively related.

One way of interpreting the findings is with regard to the changes in the experimental paradigm in Study 8 as compared to Studies 6 and 7. It seems sensible to assume that making the experience of being introduced to the fictitious woman 'Julia' more intense provides stronger effects than the ones yielded by previous studies. Thus, intensifying the imagined interaction with a non-traditional woman can lead to stronger effects of rejecting the idea of having an intimate relationship and positive contact with her. This finding is in line with the thread of the findings of this thesis and the argument that men seek selective contact with women rather than adapting their attitudes to contact experiences. The mediation analysis provides evidence that hostile sexists reject the idea of a relationship with a non-traditional woman as they expect the contact quality to be low. However, I expected that the preference of benevolent sexists for traditional women would be

enhanced. This was not the case. Nevertheless, the procedure of imagining a 'positive, relaxed and comfortable' interaction with either type of woman seems to have strengthened the link between benevolent sexism and contact quality. Thus, future research could investigate what good quality contact (Allport, 1954) means for sexist men.

The samples of Studies 6 and 7 (Naumburg) are very similar to the sample from Study 8 (Cologne), in virtually all aspects. However, one important difference between those samples is that the samples in Studies 6 and 7 consist of participants who were born and grew up in East Germany while most participants in Study 8 were born and grew up in West Germany. The participants in Studies 6 and 7 raised this question after the presentation of the findings. A wide range of sociological literature discusses differences in gender equality in East versus West Germany (see Rosenfeld, Trappe & Gornick, 2004). Interestingly, comparing the mean scores of hostile and benevolent sexism yields significantly higher HS in the sample of Study 7 as compared to the sample used in Study 8.[5] Thus, further research is needed to investigate whether the differences in findings between Studies 6 and 7 and Study 8 are due to the changes in the experimental manipulation or due to cultural differences between the samples.

General Discussion

As Studies 7 and 8 adopted a quasi-experimental approach, the findings indicate that sexist ideology causally impacts on partner preferences. Study 7 indicates that benevolent sexism contributes to romantic partner preferences and provides evidence that sexist men

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[5] To assess mean differences in HS and BS across the Samples of Studies 6 to 8, an ANOVA with study as independent factor tested whether participants' sexism scores differed across the three studies. There was a significant main effect of study on HS (F (2, 281) = 7.10, p = .001, η^2 = .05) but not on BS (F (2, 281) = 2.08, p = .127, η^2 = .02). Post hoc tests using the Scheffé post hoc criterion indicated that the means for HS were significantly higher in Study 7 (M = 4.67, SD = 0.85) than in Study 8 (M = 4.17, SD = 1.00).

do not entirely avoid contact with women but rather engage in selective contact with certain 'types' of women. This is in line with Hacker's (1951) argument that the social distance concept is not valid in the context of male – female relationships. Thus, even men who want to avoid contact with women in other domains of life might want to get married (see Hacker, 1951). More recently, a similar argument has been made by Cikara, Lee, Fiske and Glick (2009) with reference to hostile and benevolent sexism. According to Cikara et al. (2009), prescriptions and proscriptions for both sexes shape male-female interactions in the private as well as in the public sphere. Cikara et al. (2009) state that benevolent sexism functions to maintain the interdependence between romantic partners by portraying women and men as complementing each other. The traditional roles associated with benevolent sexism are thus in line with the male provider (and protector) and female homemaker roles that have also been discussed within the social role framework (Eagly, 1987; Eagly & Wood, 1999). Thus, the finding of Study 8 is not surprising since hostile sexists should perceive a non-traditional woman as violating the rules of this arrangement. The downside of benevolent sexist female ideals according to Cikara et al. (2009) are beliefs of inappropriateness of female career aspirations that exceed domestic desires as well as – for example – patronising discrimination of women in the workplace. Hence, the 'romantic' content implied in benevolent sexism has the potential to backfire on women in a variety of other aspects of life (also see Viki et al., 2003; Viki, Massey, & Masser, 2005). Moreover, as Glick et al. (1997) demonstrate, non-traditional female subtypes tend to be rejected by sexist men.

The mediation analyses presented for Studies 7 and 8 significantly add to the understanding of the underlying mechanisms which influence the preference for a

traditional and the rejection of a non-traditional romantic partner in sexist men. Even though the RAS (Hendrick, 1988) lacks a thorough theoretical background, it has been demonstrated to significantly correlate with measures of love, self-disclosure, commitment and investment in a relationship. Thus, the RAS closely taps into the very qualities that are associated with a warm, hence traditional, female partner. The mediation analysis for Study 7 indicates that – in line with Cikara et al. (2009) – benevolent sexists' idealistic notion of interdependence between romantic partners seems fulfilled with the choice of a warm, traditional partner. More precisely, in choosing a traditional partner, benevolent sexists seem to anticipate a loving, committed and interpersonally close relationship. Given that these attributes of being 'warm' can almost be equated with the notion of being 'feminine', this anticipation is in line with Antill's (1983) finding that a psychologically feminine partner is an important ingredient to marital happiness.

The mediation analysis in Study 8 tells a different story. Adding the imagined contact intervention was the crucial expansion of Study 8 over Studies 6 and 7. However, the mediation findings indicate that sexism has such a strong impact on partner preference that imagining positive contact with a non-traditional potential partner results in a backlash from men high in hostile sexism. The simple slopes analyses for Study 8 clearly show that sexist men strongly deny the possibility of having good quality contact with a non-traditional female. Study 5 linked the two female subtypes to the stereotype content model (Fiske et al., 2002). According to Fiske et al. (2002), competence perceptions are predicted by status and competition leads to perceptions of low warmth. These two dimensions are also relevant in terms of cross-group contact quality: Good quality contact fulfils the criteria of equal status and cooperation (i.e. lack of competition) between the involved

parties. However, sexist men do not seem to see these conditions as being met in contact situations with non-traditional women. Connecting the stereotype content model to the criteria of good quality contact thus reveals a lose-lose situation for both subtypes of women. While her high status should help the non-traditional female in terms of contact quality, the perception of her as being competitive undermines the positivity of the encounter. In contrast, even though the traditional woman is perceived as cooperative (i.e. not competitive), her lack of status equality similarly backfires. However, the findings of Studies 7 and 8 indicate that sexist men clearly prefer a subordinate but nice partner to an equal partner who might turn out to be a competitor.

Critelli et al. (1986) demonstrate that in traditional couples the female partner's respect for the male partner is particularly important while the opposite applies to non-traditional couples. From this reasoning and the paragraphs above, it follows that men involved with traditional female partners possibly do not amend their sexism. Hacker (1951) argued that the traditional form of marriage is marked by its inherent inequality. A question for further investigation, nevertheless, is whether Ickes's (1993) finding that traditional relationships are less satisfying for both partners in the long run still holds true. If this is the case, sexist men's partner preferences and anticipations might not turn out as planned. Non-traditional couples, in contrast, were found to show higher levels of marital satisfaction (Antill, 1983, Ickes & Barnes, 1978) and better communication between the partners (Henley & Kramarae, 1991). This might imply that, once in a long-term romantic relationship with a non-traditional woman, men may experience unexpected 'warmth', 'femininity' and relationship satisfaction in conjunction with high competence in their partner. Thus, long-term relationships with a non-traditional woman may have the capability of reducing

sexism. However, the men highest in sexism appear to actively avoid non-traditional women by explicitly preferring traditional, and rejecting non-traditional, partners.

This seems to be due to an idealised notion of, and high expectations regarding, relationships with traditional partners and a condemnation and low expectations regarding relationships with non-traditional partners. Unfortunately this is to the disadvantage of both parties – women and men – since men might be left with negative or constraining attitudes towards women. Sexist men's inability to foresee a positive and high-quality relationship with a non-traditional woman is in line with findings demonstrating that higher levels of prejudice result in more stereotypic perceptions of outgroup members (Devine, 1989; see also Glick et al., 1997, Study 1). Yet sexist men might experience high relationship satisfaction and contact quality with a non-traditional partner if they just stayed with her long enough, or even considered getting romantically involved with her. However, it appears from the findings of Studies 7 and 8 that they cannot even imagine or anticipate high relationship satisfaction or positive contact with a non-traditional woman and therefore avoid romantic involvement.

A limitation of Studies 6, 7 and 8 is their reliance on samples drawn from a very specific population (former soldiers). Soldiers in the German Armed Forces differ from the 'average person' as most of the participants in the samples of Studies 6 to 8 have been exposed to war zones in Afghanistan and Ex-Yugoslavia. Moreover, only approximately 9% of regular soldiers in the German Armed Forces are women (Rippl, 2000). Thus, participants were exposed to high levels of gender segregation in their daily environment for extended periods of time. For that reason, gender relations for these men and at this stage in their lives (just having left Army service) may be very different from men of

comparable age and education in the general population. Therefore, it remains an open question how representative the samples in Studies 6 to 8 are.

In addition, the experimental manipulation in the studies is rather artificial: Participants were introduced to a hypothetical woman via a short written description and were asked to indicate whether they would be interested in a relationship with this woman. As a consequence, the findings might lack external validity. Even though Studies 7 and 8 yielded interesting results, it remains unclear whether these findings would have been stronger if a more realistic and natural study paradigm had been chosen.

Chapter 7 presents longitudinal data which attempt to address these limitations. The data in Chapter 7 were obtained from a different population, which is more diverse and less specific than former German soldiers. Furthermore, the study refers to the participants' real romantic partner preferences as assessed with the warmth and competence scales developed by Fiske et al. (2002) and to participants' relationship satisfaction and experience of contact quality in an existing romantic relationship. As in all previous chapters, the question of the causal sequence of the sexism – contact relationship will be addressed in Chapter 7. However, in contrast to the previous chapters, Chapter 7 presents longitudinal data.

Chapter 7:

Longitudinal Analysis of the Sexism – Contact Link

In the previous chapters, the findings indicated that positive cross-gender contact does not impact on men's sexism levels (Studies 1 – 4) but sexism seemed to be linked to selective contact preferences (Studies 7 & 8). Study 9 investigates this argument longitudinally, using participants' actual partner preferences and contact experiences. Participants reported their ambivalent sexist attitudes, the competence and warmth of their ideal partner and the contact quality they experienced in a romantic relationship with an actual female partner. The results revealed that benevolent sexism at Time 1 negatively impacted on contact quality at Time 2. In addition, the results of Study 9 show that benevolent sexism at Time 1 predicted the preference of a warm (i.e. traditional) partner at Time 2. Furthermore, in line with the findings by Travaglia et al. (2009), the preference for a warm (i.e. traditional) partner at Time 1 negatively predicted hostile sexism at Time 2. Generally, hostile and benevolent sexism appear very stable over a time interval of six months.

Introduction

Chapters 5 and 6 provided evidence of sexism influencing contact preferences rather than cross-gender contact impacting on sexist ideology. However, the conditions under which Studies 6, 7 and 8 were conducted involved a very specific sample and an artificial experimental manipulation. With reference to Studies 1 and 4, the study time frames may have created methodological problems. Causal sequence was the focus of the preceding chapters. Pettigrew (1998) suggests three methods to overcome the causal sequence problem: The use of intergroup situations that limit participation choice, statistical methods to compare reciprocal paths with cross-sectional data and the use of longitudinal designs. According to Pettigrew (1996), longitudinal research designs provide the best suitable approach to address the causal sequence problem. The question of the direction of causality in the ambivalent sexism – contact link thus requires a final longitudinal study.

Longitudinal Research on Intergroup Contact

Several recent longitudinal studies have taken the causal sequence problem into account (Binder, Zagefka, Brown, Funke, Kessler, Mummendey et al., 2009; Brown, Eller, Leeds, & Stace, 2007; Eller & Abrams, 2004; Levin, Van Laar, & Sidanius, 2003; Van Laar, Levin, Sinclair, & Sidanius, 2005). Using cross-lagged path analysis, Binder et al. (2009) showed that intergroup contact reduced ethnic prejudice but that the reverse was true as well. They concluded that contact quantity and quality with outgroup friends facilitated prejudice reduction longitudinally, with contact quality being the better predictor. However, prejudice also predicted subsequent contact quantity and quality. This effect was even stronger than the effect of contact on prejudice; however, the difference between these two effects was not significant (Binder et al., 2009).

Brown et al. (2007) present longitudinal data from an interschool context. They included measures of contact quantity, quality and typicality as well as a measure of infrahumanisation and items tapping a desire for closeness. In this research, multiple regression models provide evidence that higher contact quantity – but not contact quality – predict the desire for closeness and reduced infrahumanisation. In line with the propositions of the contact hypothesis, regression models exploring the reverse causal direction of these variables reveal no significant effects.

Two longitudinal field studies tested Pettigrew's (1998) intergroup contact theory in international contexts using national outgroups (Eller & Abrams, 2004). Eller and Abrams (2004) used Islam & Hewstone's (1993) measure of contact quality and quantity, intergroup anxiety, social distance and general evaluation of the outgroup. In their first study, friendship contact reduced intergroup anxiety. Eller and Abrams (2004, Study 2) provide evidence for a negative relationship between friendship contact and social distance and a positive relationship between friendship contact and general outgroup evaluation. They found limited evidence for the reversed causal sequence.

Levin et al. (2003) conducted a longitudinal study on the effects of friendships on ethnic attitudes in college, following up a large sample of American college students over nearly five years. Levin et al.'s (2003) findings indicate that the magnitude of the causal paths from outgroup friendships to reduced prejudice and intergroup anxiety were of the magnitude of the reverse paths. Interestingly, this was true despite the authors' efforts to control for background variables such as previous ethnic attitudes and pre-college friendships. Similarly, Van Laar et al. (2005) investigated the effect of university roommate contact on affective, cognitive and behavioural indicators of ethnic prejudice. Van Laar et

al. (2005) found that ethnic heterogeneity of college roommates predicted increased interethnic competence and outgroup dating and decreased interethnic unease, symbolic racism and social dominance orientation. This held true for African American and Latino roommates. However, the pattern was reversed in the case of Asian American roommates. Even though Van Laar et al. (2005) did not report the results for the reversed causal sequence in their longitudinal data, their field experimental data showed that participants from the same sample, who were randomly assigned to share rooms with outgroup members in their first year of university, showed improved intergroup attitudes.

Thus, a number of longitudinal studies investigated the impact of intergroup contact on prejudice over time, sometimes using cross-lagged panel designs. The evidence on direction of the causal sequence is mixed (see for example Levin et al., 2003) but the majority of studies indicate that intergroup contact is more likely to reduce prejudice than prejudice is likely to predict selective contact.

ASI Longitudinally

Similarly, in the last few years, a series of publications have emerged which present longitudinal data on ambivalent sexism (Sibley et al., 2007a; 2007b; 2009; Sibley & Perry, 2010; Travaglia et al., 2009). In Chapter 3, I argued that hostile and benevolent sexism appear very stable over time. As this stability can impact on the cross-lagged effects of the other variables of interest (Finkel, 1995), this section will review the longitudinal findings available on hostile and benevolent sexism.

In two female New Zealand student samples, Sibley at al. (2007a) found hostile and benevolent sexism to be very stable across time intervals of six and twelve months. Across both time intervals and samples, cross-lagged panel analyses revealed that benevolent

sexism at Time 1 predicted hostile sexism at time two. Sibley et al. (2009) corroborated these findings using a smaller, mixed-sex sample of New Zealand undergraduate students. As in Sibley et al. (2007a), benevolent sexism at Time 1 predicted hostile sexism at Time 2. These findings did not differ by participant sex.

Using shortened six-item scales of hostile and benevolent sexism, Sibley and Perry (2010) found both forms of sexism to be very stable over time. Sibley et al. (2007b) conducted longitudinal analyses over five months using a male student sample (N = 44). As in the female samples and the mixed sample reported above, benevolent and hostile sexism were stable over five months. Unlike in the studies by Sibley at al. (2007a) and Sibley et al. (2009), benevolent sexism at Time 1 was not significantly related to hostile sexism at Time 2.

Finally, Travaglia et al. (2009) present longitudinal data of a sample of New Zealand undergraduate students and ran a series of cross-lagged regression analyses in order to test the effects of hostile and benevolent sexism at Time 1 on preferences for a romantic partner (ideal standards) at Time 2 while controlling for the reverse causal paths. This study is of particular interest here as it combines the romantic relationship focus of this thesis with the longitudinal findings on the ASI. Moreover, it uses a cross-lagged panel design and links this chapter to the content and findings of Chapters 5 and 6.

The analyses by Travaglia et al. (2009) show that women's benevolent sexism at Time 1 predicted status and resource preferences in a romantic partner at Time 2, yielding marginal significance. Moreover, women's hostile sexism at Time 1 predicted a preference for attractiveness and vitality in a romantic partner at Time 2. Testing the reverse cross-lagged paths, Travaglia et al. (2009) found that ideal standards did not significantly predict

benevolent sexism over time. Yet preferring warmth and trustworthiness in a romantic partner at Time 1 was negatively related to hostile sexism at Time 2. Travaglia et al. (2009) only report the stability of hostile and benevolent sexism for their female sample. Like in the studies discussed above, benevolent and hostile sexism in women were very stable across an interval of nine months. Travaglia et al. (2009) further conducted cross-lagged regression analyses on a small sample of 37 male students. These analyses reveal no significant longitudinal effects between either form of sexism and partner preferences. Interestingly, in men, a greater preference for status and resources in a romantic partner was longitudinally related to reductions in hostile sexism. However, since the male sample was very small, Travaglia et al. (2009) emphasise that these results need to be interpreted with caution.

These findings provide evidence for the stability of hostile and benevolent sexism over time. However, there are two limitations to the data presented here: Apart from the findings by Sibley et al. (2007b) and Travaglia et al. (2009) on very small male samples and the findings by Sibley et al. (2009) on a mixed sample, all studies are based on female undergraduate samples. Moreover, all studies come from the same research group and the same cultural environment. In contrast, the study discussed in this chapter will present data from a male, mainly British sample.

Cross-Lagged Panel Designs

Pettigrew (1996) names reciprocal causation as one problem related to causal inferences. Reciprocal causation happens when two or more variables mutually influence each other (Pettigrew, 1996). This idea is consistent with the causal sequence problem addressed by Pettigrew (1998). According to Pettigrew (1996), longitudinal designs are the method of

choice to address questions of causality and the problem of reciprocal causation/causal sequence. The Scottish philosopher John Stuart Mill (1806 – 1873) stated that among the conditions to infer cause and effect are the requirements that the cause precedes the effect and that cause and effect are related to one another. As longitudinal studies allow researchers to investigate how phenomena unfold over time, longitudinal data are most suitable to allow for causal inferences (Pettigrew, 1996). However, even though establishing the temporal order provides evidence for the plausibility of one over another causal relationship, in itself, temporal order is not sufficient to establish causality (Menard, 2002).

Longitudinal panel data allow for tests of causal influences in both directions (Menard, 2002), and according to Finkel (1995), the attempt to determine the causal ordering between variables is one of the most important motivations for analysing panel data. Panel designs allow for the estimation of lagged effects where prior values of a variable A impact on later values of the variable B and vice versa (Finkel, 1995). The most basic cross-lagged panel model includes two waves measuring the same variables. According to the logic of cross-lagged panel analysis, if variable A (e.g. benevolent sexism) is believed to cause variable B (e.g. partner preferences), then the path between A at Time 1 and B at Time 2, controlling for B at Time 1, should be stronger than the path between B at Time 1 and A at Time 2 controlling for A at Time 1. Figure 7 in the results section is an example of this.

The present research

Studies 6, 7 and 8 adopted a quasi-experimental approach to address the question of causal direction. However, the samples were drawn from a very specific population (German Federal Armed Forces). Another limitation in those studies was the artificial

experimental manipulation. Moreover, a limitation of the existing literature is that all longitudinal findings on hostile and benevolent sexism have been conducted on undergraduate, mainly female samples from New Zealand. In addition, none of the studies presenting longitudinal data on intergroup contact has looked at gender as an intergroup context for prejudice reduction.

The present study will add to the existing knowledge and literature in several ways: In line with Pettigrew (1996), Study 9 will adopt a longitudinal design to most appropriately address the question of causal direction of the sexism – partner preference/contact link. It will extend the findings of Studies 6, 7 and 8 by drawing a sample from a different population and assessing actual partner preferences. Study 9 will also extend the current knowledge on the longitudinal characteristics of hostile and benevolent sexism presented by Chris Sibley and colleagues (e.g. Sibley et al., 2007a; 2007b; 2009) by presenting longitudinal data from a larger male sample from a different cultural background. Finally, Study 9 will add to the literature on intergroup contact by looking longitudinally at gender as a cross-group context.

Study 9 is based on the same theoretical reasoning as the research presented in Chapters 5 and 6. Consistent with previous research (Chen, et al. 2009; Eastwick et al., 2006; Glick et al., 1997; Johannesen-Schmidt & Eagly, 2002; Lee et al., 2010b; Travaglia et al., 2009), I hypothesise that sexist ideologies – hostile and benevolent sexism – impact on romantic partner preferences. In terms of the causal sequence problem I propose that – in the context of heterosexual romantic relationships – prejudice shapes contact experiences rather than contact impacting on prejudice. As in Chapter 5, this proposition is based on social role theory (Eagly, 1987; Eagly & Wood, 1999) and the stereotype content model (e.g. Fiske et

al. 2002).

I hypothesise that high-quality contact does not reduce hostile and benevolent sexism over time. To the contrary, I hypothesise that benevolent sexism, over time, predicts a preference for a warm partner while hostile sexism predicts the rejection of a competent partner. As such, the reverse cross-lagged paths should not be significant. Moreover, based on the findings by Chris Sibley and his research group (e.g. Sibley et al., 2007a; 2007b; 2009), I expect that hostile and benevolent sexism are stable over time. I also hypothesise, in line with Travaglia et al. (2009), that initial preferences for a warm partner are related to reduced levels of hostile sexism at a later time.

Study 9

Method

Participants.

In the first data collection wave a total of 209 heterosexual men completed the questionnaire. One hundred and seventy-three participants (83%) provided their email address for follow-up. A total of 95 participants completed both waves of the study, resulting in a response rate of 46% with reference to Time 1. The mean age of the participants in this final sample was 22.39 years (*SD* = 6.86), ranging from 18 to 47 years of age. Approximately 75% of participants were 22 years old or younger. Eighty-three percent of participants were of British nationality, 3% identified themselves as American citizens and the remaining 14% of participants came from a range of other countries. Ninety-two percent of participants were of Caucasian descent and the remaining eight percent were Black, Asian or mixed-race participants. With respect to religious

background, 60% of participants indicated to be Atheist, Agnostic or generally not religious. Twenty-six percent of participants were Christian and the remaining 14% belonged to a variety of other religious backgrounds. Approximately half of the participants (49%) were single at the time of the first data collection. Seven percent reported that they were casually involved with a woman and 43% were involved in a committed romantic relationship. A minority of 1% did not respond to this question. Six participants (6%) had children.

Design and materials.

The study featured a prospective panel design involving two data collection points over a time lag of six months. Participants completed the same set of questions at both data collection points. The only difference between Time 1 and Time 2 was that, at Time 2, all participants were approached via email and completed the questionnaire online.

Ambivalent Sexism Inventory. As in all previous studies, participants completed the ASI by Glick & Fiske (1996) indicating their agreement to the scale items on 7-point Likert scales ranging from 1 to 7 (1 = *strongly disagree*, 7 = *strongly agree*).

Stereotype Content Model. Participants rated the competence and warmth of their ideal partner on 5-point Likert-type scales ranging from 1 (not at all) to 5 (extremely). The items of these scales were adapted from Fiske et al. (2002, Study 1). The instruction read as follows: *"We are now interested in your personal beliefs regarding your ideal partner. Please fill in this questionnaire regardless of your relationship status."* This instruction was followed by the five competence items: *"Should your ideal partner be...competent*

(confident, independent, competitive, intelligent)?" and the four warmth items: *"Should your ideal partner be...tolerant (warm, good natured, sincere)?"*

Contact Quality. Participants who were involved in a romantic relationship were asked to complete an adapted version of the QAC. The instruction for this section read: *"The following questions are only to be answered by people who are currently involved in a heterosexual romantic relationship."* The five QAC items were reworded to match the relationship context: *"In your current relationship, do you perceive the contact between the two of you as equal?", "...as involuntary or voluntary?", "...as superficial or intimate?", "Do you experience this relationship as pleasant?", "...as competitive or cooperative?"* All responses were given by participants on a 7-point Likert-type scale ranging from 1 to 7.

Procedure.

Forty-three participants completed the paper and pencil version of the questionnaire. These participants were undergraduate students at the University of Kent, who were approached during an introductory lecture of the School of Architecture. The researcher was permitted to introduce her study before the morning coffee break and hand the questionnaires to interested participants. In agreement with the School of Architecture, participants completed the questionnaires during the day at their convenience and the researcher collected the questionnaires in the evening of the same day. Before the conclusion of the evening, all participants received written and oral debriefing and the opportunity to ask questions. The remaining participants were approached during several lectures at the University of Kent, where the researcher advertised her study and asked interested students to register their interest by entering their email addresses in lists

provided by the researcher. These participants were then emailed the link to an online version of the questionnaire.

On the first page/screen of the questionnaire, participants were informed about the nature and the content of the study and their ethical rights. Next, participants were asked to create a unique code containing letters and numbers, which would identify them but would only be known to the participants themselves. This was followed by the demographic details. Then participants completed the ASI, the competence and warmth items and the QAC. The QAC was only completed by participants who were romantically involved. On the last page/screen, participants were given written debriefing and were asked to leave their email address, so the researcher could contact them for the follow-up data collection. Participants were informed that they would enter a prize draw once all data collections for the study were completed. The prize draw was carried out in October 2008 and the winners were contacted via email and paid out of the researchers' annual research allowance.

Results

Preliminary analyses.

Cronbach's alpha yielded acceptable to good reliabilities for all scales at Time 1 (HS: $\alpha = .91$, BS: $\alpha = .84$, Competence: $\alpha = .64$, Warmth: $\alpha = .70$, QAC: $\alpha = .78$) and Time 2 (HS: $\alpha = .93$, BS: $\alpha = .86$, Competence: $\alpha = .68$, Warmth: $\alpha = .76$, QAC: $\alpha = .82$). Composite scores were calculated for each data collection time point and each scale by averaging the item ratings for each participant. The mean of the HS subscale at Time 1 was 3.91 (*SD* = 1.16) and the mean of the BS at subscale at Time 1 was 3.89 (*SD* = 1.05). The mean of the

HS subscale at Time 2 was 3.75 (*SD* = 1.18) and the mean of the BS subscale at Time 2 was 3.91 (*SD* = 1.06). Thus, the means of both subscales were somewhat below the scale midpoint at both time points.

Correlations among the measures are available in Table 21. Consistent with the literature and the studies in Chapters 3 and 4, HS and BS are positively correlated (Time 1: r (207) = .41, $p < .001$; Time 2: r (93) =. 52, $p < .001$). The data also replicate the negative relationship between HS and QAC from previous chapters. At Time 1, there is a significant negative relationship between these two variables (r (96) = -.25, p = .014). This correlation is slightly lower and non-significant at Time 2 (r (50) = -.18, p = .202).

Table 21

Correlations between variables at Time 1 (lower diagonal) and Time 2 (upper diagonal)

	HS	BS	Competence	Warmth	QAC
HS	-	.52**	-.01	.21*	-.18
BS	.41**	-	.01	.20†	-.14
Competence	.09	-.01	-	.42**	.17
Warmth	.11	.10	.41**	-	.42**
QAC	-.25**	-.06	.60	.11	-

Note. ** Correlation is significant at $p < .01$ (two-tailed).
* Correlation is significant at $p < .05$ (two-tailed).
† Correlation is significant at $p < .10$ (two-tailed).

Panel attrition and comparison of participants.

To test whether the final sample of participants ($N = 95$) who completed the questionnaire at Time 1 and 2 differed from the participants who only completed the questionnaire at Time 1, I conducted a MANOVA and an independent samples t-test[6], comparing the participants who completed both questionnaires ($N = 95$) with those who only completed the first questionnaire ($N = 114$) on the relevant Time 1 variables (HS, BS, Competence & Warmth of ideal partner, QAC).

The multivariate analysis for HS, BS and Competence and Warmth scores for the ideal partner did not indicate any systematic differences between the samples on a multivariate level at Time 1 (F (4, 194) = 0.78, p = .539, η^2 = .02), which was confirmed by the findings at the univariate level (all Fs < 1.90, all ps > .100, all η^2s < .00). In a similar vein, the t-test for QAC did not suggest any systematic differences at Time 1 between participants who dropped out versus those who remained in the study (t (96) = -0.26, p = .798, d = 0.05).

The multivariate analysis for HS, BS and Competence and Warmth scores for the ideal partner did not indicate any systematic differences between the samples on a multivariate level at Time 1 (F (4, 194) = 0.78, p = .539, η^2 = .02), which was confirmed by the findings at the univariate level (all Fs < 1.90, all ps > .100, all η^2s < .00). In a similar vein, the t-test for QAC did not suggest any systematic differences at Time 1 between participants who dropped out versus those who remained in the study (t (96) = -0.26, p = .798, d = 0.05).

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[6] Due to the fact that only 50% of participants were in a relationship at T1, the missing scores for QAC would have led to listwise exclusion of cases if they had been included in the same analysis as HS, BS and Competence and Warmth of the ideal romantic partner.

The mean age of participants who completed both time points (M = 22.39, SD = 6.86) was significantly higher than the mean age of participants, who left the study (M = 20.20, SD = 3.52), t (207) = -2.82, p = .006, d = 0.40). Lost participants were more likely to be Black (3.8 % vs. 1.1%) or Asian (7.6 % vs. 3.2%), while participants who remained in the study were more likely to be White (87.3% vs. 92.6%) or Mixed Race (1.3% vs. 3.2%). The two groups were well matched in terms of nationality (British: 85.1% vs. 83.2%; American: 2.6% vs. 3.2%; other: 12.3% vs. 13.7%). Participants with children tended to stay in the study (1.8% vs. 6.3%). With respect to relationship status, singles were more likely to leave the study early (59.3% vs. 49.4%), whereas participants who were romantically involved at Time 1 tended to stay in the study for follow-up (40.7% vs. 50.6%).

Preliminary analysis: Changes of means over time.

Descriptive analyses of change of all variables were conducted by subjecting them to a repeated measures ANOVA and a paired samples t-test[7], using time as the within-participants factor. Multivariate results for HS, BS and Competence and Warmth of the ideal partner indicated no significant change in these variables over time (F (4, 88) = 0.94, p = .443, η^2 = .04), which was confirmed by the univariate tests (all Fs < 2.50, all ps > .100). Similarly, QAC did not change significantly over time as indicated by the t-test (t (42) = 0.12, p = .908, d = 0.02). Table 22 displays the results of the repeated measures ANOVA and the t-test, including all means and standard deviations.

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[7] See footnote 6

Table 22

Means, Standard Deviations and Changes over Time

	Time 1	**Time 2**		
Variable	**M (SD)**	**M (SD)**	***F* (4,88)**	*p*
Analysis 1:				
HS	3.78 (1.16)	3.75 (1.20)	0.15	.700
BS	3.92 (1.01)	3.89 (1.06)	0.13	.717
Competence	3.80 (0.46)	3.89 (0.50)	2.44	.122
Warmth	4.24 (0.61)	4.20 (0.60)	0.41	.521
Analysis 2:	**M (SD)**	**M (SD)**	***t* (42)**	**Sig.**
QAC	5.76 (0.95)	5.74 (0.97)	0.12	.908

Main analyses.

Ambivalent sexism and contact quality.

The hypothesis tested here states that cross-gender contact does not reduce sexism but, instead, that sexism impacts on contact preferences. This hypothesis was tested with a series of path analyses using AMOS (Arbuckle, 2006) [8].

Due to the high attrition rate, the size of the final sample in these analyses is rather small. In order to deal with this amount of missing data in the most appropriate way, I used

[8] I also conducted full SEM analyses for all the models reported here. The paths in all these SEM models are stronger that the ones of the reported for the path analyses. However, due to problems in the measurement model proposed by Glick and Fiske (1996), the fit of these models is very poor. As it is not the focus of this thesis to improve the ASI as a measure of ambivalent sexism, I am not reporting these analyses here.

full information maximum likelihood estimation (FIML). Computer simulation studies (e.g. Arbuckle, 1996; Peters & Enders, 2002) showed that maximum likelihood-based methods generally outperform traditional methods of handling missing data. In SEM the convention for the sample size-to-parameter ratio is sometimes stated as 5:1 (e.g. Nevitt & Hancock, 2004). Using FIML for the current analyses results in a sample of N = 111 men who are romantically involved at Time 1.

This first set of path analyses tested the causal sequence of the link between HS, BS and QAC. Model 1a, the Saturated Model, included all cross-lagged relationships and all possible cross-time stability effects. Figure 7 shows Model 1a. Models 1b and 1c were nested under Model 1a. Model 1b is the Contact Model and includes a longitudinal path from QAC at Time 1 to HS at Time 2. This path is consistent with the predictions of the contact hypothesis, testing whether contact reduces sexism longitudinally. In addition, the model includes a longitudinal path from BS at Time 1 to HS at Time 2 (see Sibley et al., 2007a, 2009). Finally, the model includes all autoregressive paths of each variable at Time 1 to the same variable at Time 2. Figure 8 shows the Contact Model (Model 1b).

Model 1c is the Prejudice Model and predicts the reversed causal sequence between sexism and contact quality. Support for this model would strengthen the argument of this thesis. The Prejudice Model includes longitudinal paths from HS at Time 1 to QAC at Time 2 and from BS at Time 1 to QAC at Time 2. Analogous to the Contact Model, the longitudinal path from BS at Time 1 to HS at Time 2 was included and the autoregressive paths of each variable at Time 1 to the same variable at Time 2. Figure 9 shows Model 1c (Prejudice Model).

The Saturated Model had no degrees of freedom and thus no model fit was estimated. The estimates for each parameter in the Saturated Model are shown in Table 23. HS, BS and QAC displayed strong cross-time stability. Moreover, the cross-lagged model shows that HS at Time 1 was not linked to BS or QAC at Time 2. BS at Time 1, in a similar vein, does not predict HS or QAC at Time 2. However, there was an unexpected positive marginally significant relationship between QAC at Time 1 and HS at Time 2, but no such relationship between QAC at Time 1 and BS at Time 2. The model corroborates the findings by Sibley and colleagues (e.g. Sibley et al., 2007a, 2007b, 2009) regarding the stability of sexism over time.

For the Contact and the Prejudice Models, three fit indices are reported: The Chi-square, the Comparative Fit Index (CFI) and the Root Mean Square Error of Approximation (RMSEA). In line with Hu and Bentler (1999), the following cut-off values for the fit indices are used: The CFI should be at least .95 and the RMSEA should be below .06.

The Contact Model had acceptable fit with the data (χ^2 (3) = .81, p = .846, *CFI* = 1.00, *RMSEA* = 0.00, *90% CI for RMSEA*: 0.00, 0.09). The Prejudice Model had lower fit than the Contact Model (χ^2 (3) = 5.23, p = .156, *CFI* = 0.99, *RMSEA* = 0.08, *90% CI for RMSEA*: 0.00, 0.19). At first sight this supports the Contact Model, however, the parameter estimated for contact path was *negative*, suggesting that contact increased hostile sexism (β = .14, p = .072; see also the Saturated Model in Table 23).

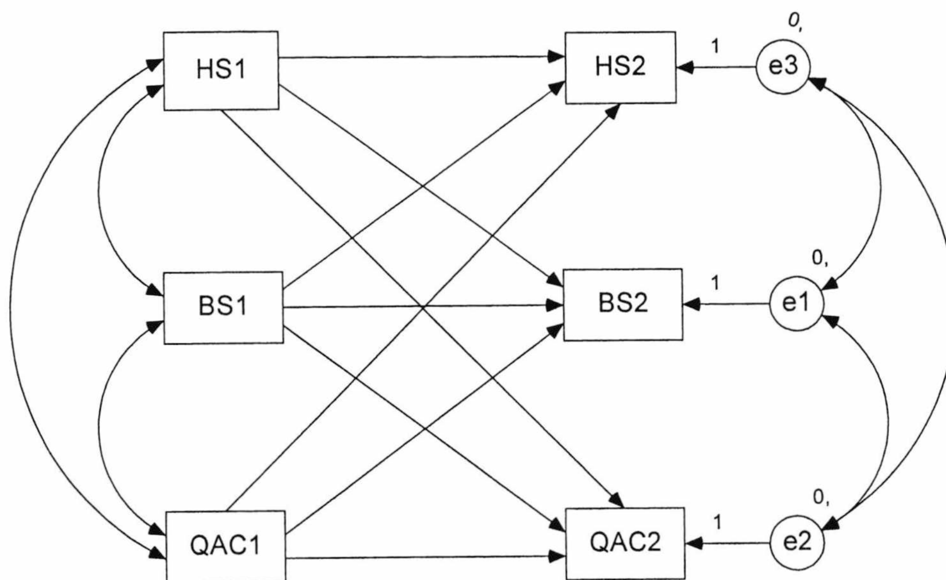

Figure 7. Saturated Model (Model 1a).

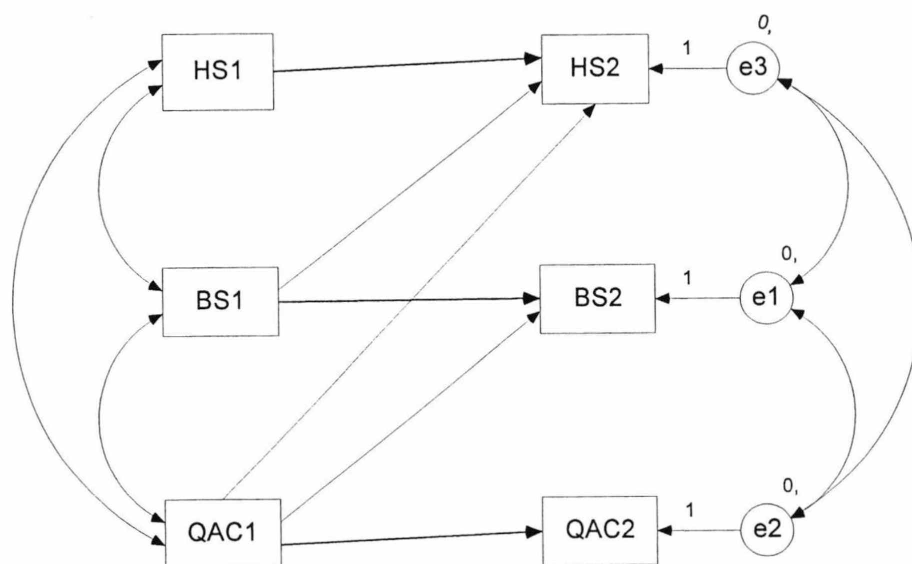

Figure 8. Contact Model (Model 1b).

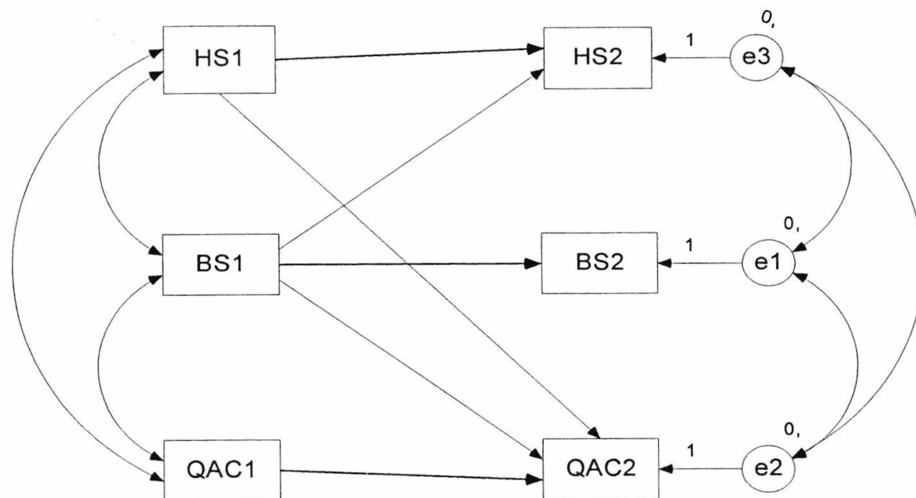

Figure 9. Prejudice Model (Model 1c).

Table 23

Cross-lagged analysis testing the associations between men's HS, BS and QAC

		B	*SE B*	β	*p*
Predicting Time 2 HS	HS Time 1	0.88	0.08	.88	.000
	BS Time 1	0.01	0.09	.00	.957
	QAC Time 1	0.17	0.09	.14	.066
Predicting Time 2 BS	HS Time 1	0.02	0.09	.02	.813
	BS Time 1	0.78	0.10	.77	.000
	QAC Time 1	-0.05	0.10	-.05	.612
Predicting Time 2 QAC	HS Time 1	-0.00	0.13	.00	.991
	BS Time 1	-0.12	0.14	-.13	.397
	QAC Time 1	0.37	0.14	.38	.009

Ambivalent sexism and partner preferences.

In line with the findings in Chapters 5 and 6, path analyses tested the possibility that men's ambivalent sexism levels impact on romantic partner preferences. Figure 10 shows the Saturated Model (Model 2a). Model 2b, the Contact Model, includes paths from competence at Time 1 to HS at Time 2 and from Warmth at Time 1 to BS and HS at Time 2. The path between Warmth and HS is based on previous findings by Travaglia et al. (2009). The Contact Model is shown in Figure 11. Finally, the Prejudice Model (Model 2c) is shown in Figure 12. It includes longitudinal paths from BS to Warmth, from HS to Competence and from Warmth to HS (see Travaglia et al., 2009). Both models include a path from BS at Time 1 to HS at Time 2 (see Sibley et al., 2007a, 2009). The sample size in these analyses was larger than in the previous analyses. Using FIML, the data of 209 men were included to estimate the models.

In the Saturated Model, HS, BS, Competence and Warmth all displayed significant cross-time stability. Moreover, the model shows that HS at Time 1 was not linked to any of the other variables at Time 2. BS at Time 1, however, significantly predicted Warmth of an ideal partner at Time 2. Furthermore, the preference at Time 1 for an ideal partner to be warm was negatively related to HS at Time 2. Table 24 shows the standardised and unstandardised path coefficients and the p-values for all paths included in the model. The Saturated Model partially supports the hypothesis. In line with my argument, higher levels of BS at Time 1 predict preferences for a warm (i.e. traditional) partner at Time 2, indicating that sexism guides contact preferences. However, HS did not seem to have an impact on partner preferences. In line with the findings by Travaglia et al. (2009), wishing for a warm (i.e. traditional) partner led to reductions in HS over time.

Testing the two nested models, the Contact Model had acceptable fit with the data (χ^2 (8) = 10.08, p = .260, *CFI* = 0.99, *RMSEA* = 0.04, *90% CI for RMSEA*: 0.00, 0.09). However, the Prejudice Model fitted the data better than the Contact Model (χ^2 (8) = 8.47, p = .389, *CFI* = 1.00, *RMSEA* = 0.02, *90% CI for RMSEA*: 0.00, 0.08). This finding is in line with the argument that sexism impacts on partner preferences and hence, may result in selective contact choices.

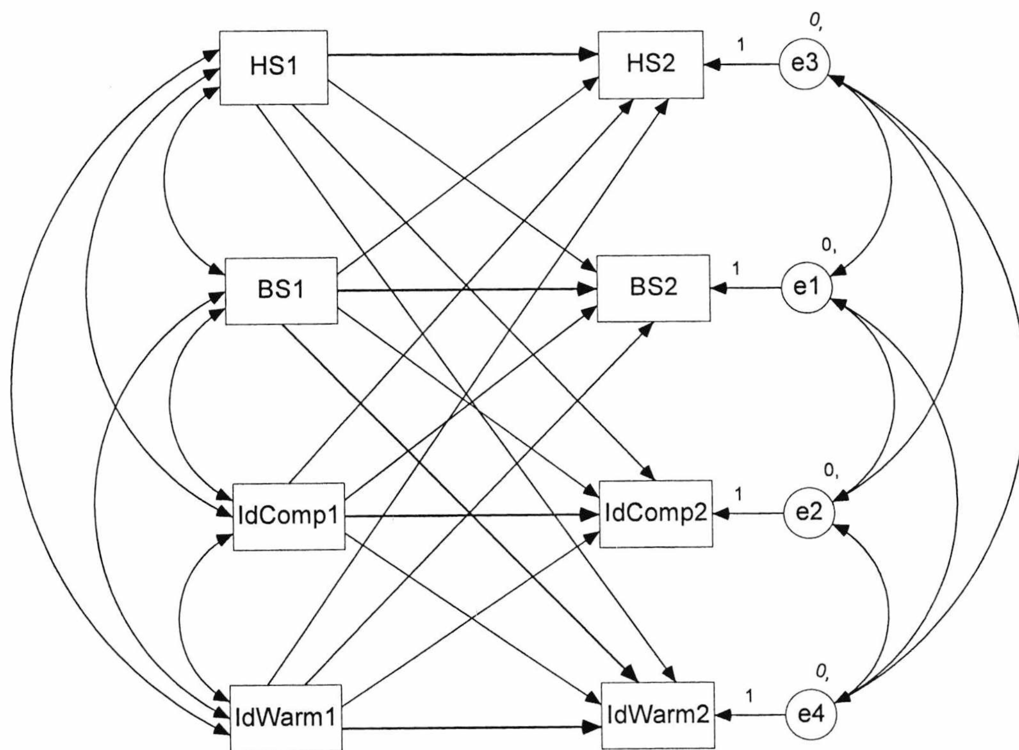

Figure 10. Saturated Model (Model 2a).

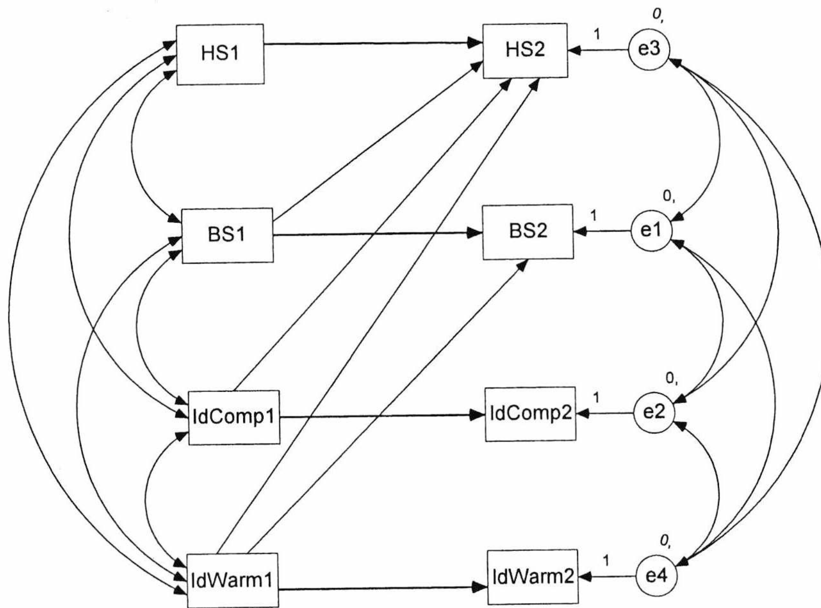

Figure 11. Contact Model (Model 2b).

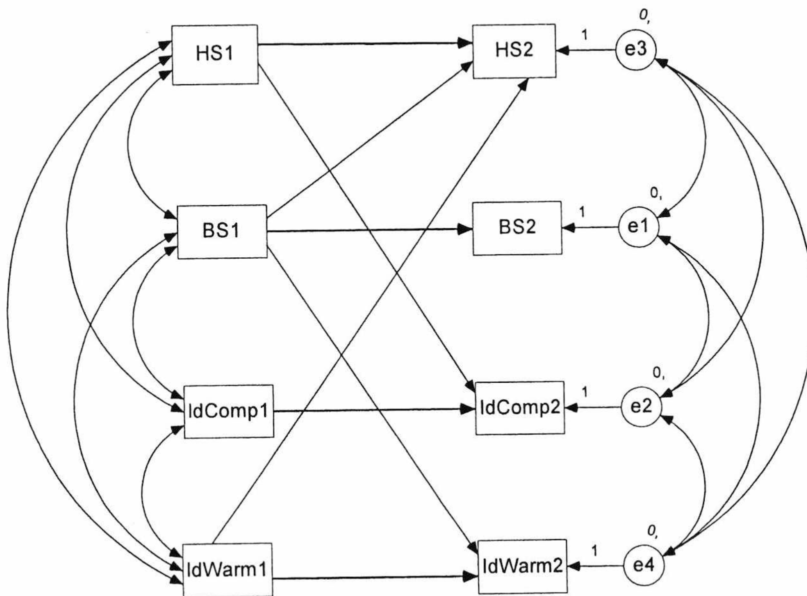

Figure 12. Prejudice Model (Model 2c).

Table 24

Cross-lagged analysis testing the associations between men's HS, BS and ideal partner Competence and Warmth over six months

		B	*SE B*	β	*p*
Predicting Time 2 HS	HS Time 1	0.83	0.07	.80	.000
	BS Time 2	0.07	0.08	.06	.387
	Competence Time 1	0.20	0.15	.09	.174
	Warmth Time 1	-0.28	0.10	-.13	.047
Predicting Time 2 BS	HS Time 1	0.06	0.07	.07	.345
	BS Time 1	0.77	0.07	.74	.000
	Competence Time 1	-0.11	0.15	-.06	.441
	Warmth Time 1	0.11	0.14	.06	.429
Predicting Time 2 Competence	HS Time 1	-0.02	0.05	-.05	.631
	BS Time 1	0.04	0.05	.08	.457
	Competence Time 1	0.43	0.10	.44	.000
	Warmth Time 1	0.00	0.10	.00	.997
Predicting Time 2 Warmth	HS Time 1	-0.01	0.05	-.02	.826
	BS Time 1	0.11	0.05	.19	.039
	Competence Time 1	0.28	0.10	.24	.008
	Warmth Time 1	0.45	0.10	.42	.000

Discussion

This final empirical chapter aimed to provide evidence for the hypothesis that – in the context of heterosexual romantic relationships – high quality contact does not reduce ambivalent sexism over time. In contrast, the opposite causal sequence should be true, in that benevolent sexism predicts preferences of a warm, thus traditional, romantic partner while hostile sexism is related to the rejection of a competent, thus non-traditional, romantic partner. Moreover, in line with the findings by Chris Sibley's research group (e.g. Sibley et al., 2007a; 2007b; 2009) both forms of sexist ideology were hypothesised to be very stable over time, while hostile sexism should longitudinally be predicted by initial preferences for a traditional, warm romantic partner (see Travaglia et al., 2009). The Saturated Model (Model 1a) testing this hypothesis with reference to contact quality yielded a surprising result. There were no significant cross-lagged paths in this model, except for a marginally significant positive path from contact quality at Time 1 to hostile sexism at Time 2. This link might have been the reason why the Contact Model (Model 1b) obtained better model fit than the Prejudice Model (Model 1c) in these analyses. This is seemingly contrary to the hypothesis in this thesis, which proposed a non-significant relationship between these two variables. Moreover, intergroup contact theory would have predicted a negative link.

The hypothesis regarding ambivalent sexism guiding the preferences for a warm/traditional, and the rejection of a competent/non-traditional, partner was partially supported by the second Saturated Model (Model 2a). Consistent with the predictions of social role theory (e.g. Eagly, 1987; Eagly & Wood, 1999) and the findings by Travaglia et al. (2009), benevolent sexism at Time 1 predicted the preference of a warm, traditional

romantic partner at Time 2. However, hostile sexism at Time 1 was not significantly related to the rejection of a competent, non-traditional romantic partner. In line with Travaglia et al.'s (2009) findings, preferred higher warmth/traditionalism of a partner at Time 1 was negatively related to hostile sexism at Time 2. In addition, despite the Contact Model (Model 2b) and the Prejudice Model (Model 2c) displaying satisfactory model fit, in these analyses, the Prejudice Model received stronger empirical support.

Given the arguments I made in previous chapters, the findings of Study 9 are essentially consistent with my reasoning. Both series of path analyses provide some evidence for a 'reversed' causal sequence in the link between cross-gender contact and gender-based prejudice in the context of romantic relationships. In line with the hypothesis, even good quality contact does not reduce either form of sexism over time. Study 9 even suggested that good quality contact might increase men's levels of hostile sexism. However, since this finding is unexpected, contrasts with the previous studies in this thesis and is a stand-alone finding, this might be a statistical artefact.

The findings of the second series of path models (Models 2a, 2b & 2c) are in line with the predictions of social role theory and the longitudinal findings by Travaglia et al. (2009). Overall, it appears that sexism leads to selective contact experiences in the gender context and, in particular, benevolent sexism is related to preferences for a traditional female romantic partner as measured by the warmth scale (Fiske et al., 2002). Interestingly, this finding also complements the finding by Travaglia et al. (2009) given that the sample in Study 9 was a male sample while Travaglia et al.'s (2009) sample consisted of female participants. According to the reasoning in this thesis, higher levels of sexism in women should also predict a stronger preference for a traditional partner. However, as gender roles

are complementary (e.g. Eagly et al., 2000), for a sexist female, a traditional romantic partner should be a partner who is highly successful in the provider role, thus highly competent but possibly lower in warmth.

The findings presented in this chapter are consistent with sociological reasoning on the contact hypothesis (e.g. Hacker, 1951; Jackman & Crane, 1986). Jackman and Crane (1986) present data indicating that it is not merely the positive nature of contact that leads to prejudice reduction in racial relationships, but it is the inequality in socioeconomic status that prevents positive contact effects from taking place. Thus, according to these authors, policy change towards fairer employment opportunities and ending group-based disadvantage for subordinate groups is more important than positive and intimate contact experiences. Moreover, Jackman and Crane (1986) provide evidence that positive, intimate relationships with Blacks do not change policy-related attitudes in their White friends. Hence inequality and, as a consequence prejudice, is maintained.

With reference to men's gender attitudes, Jackman and Crane (1986) point out that despite high levels of positive contact and positive affective dispositions towards women, men refuse to support the promotion of women's equality. Thus, similar to Whites' racial attitudes towards Blacks, with gender, personal affective ties with the disadvantaged outgroup do not result in an abundance of discriminatory policy orientations (Jackman & Crane, 1986). Hence, in line with the arguments in Chapters 1, 2, 5 and 6, it is not surprising that Study 9 is supportive of a reversed causal sequence between cross-gender contact and levels of sexism. This is consistent with Hacker's (1951) reasoning that marriage is an intimate relationship of inequality despite it being the ultimate point of acceptance according to Bogardus's (1933, 1967) social distance concept.

Moreover, in line with Cikara et al. (2009) this can be interpreted as a form of system justification based on the idea that hostile and benevolent sexism are ideologies. These ideologies reflect and stabilise the current system which gives social advantage to men, for example in terms of presence in high status roles and greater income (United Nations Development Programme, 2006). As Cikara et al. (2009) argue, hostility on its own would make it difficult to keep women in a subordinate position, hence the importance of benevolent sexism for intimate heterosexual relationships. From this point of view, the predictions in terms of partner preferences according to social role theory (Eagly, 1987) and the findings obtained in Study 9 make sense, since choosing a warm partner who 'knows her place' is vital for the maintenance of this gender-based system of inequality.

Despite the fact that Study 9 has several strengths, it also has some limitations. One of these limitations is related to a question posed by Pettigrew (1996) and refers to the time interval between cause and effect. As the findings regarding the sexism – contact quality link suggest, contact and/or prejudice effects appear to 'sink in' and have different effects at different times. While the cross-sectional correlation between hostile sexism and contact quality corresponds with the findings of previous studies, the longitudinal positive effect of contact quality on hostile sexism is unexpected. Hence, a question for further investigation is what the right time lag between cause and effect is. Pettigrew (1996) states that not only must a cause precede the effect but also that the intervals between these two can vary widely. Thus, the six month time lag in Study 9 may have been either too long or too short to produce relevant results. To my knowledge, the sufficient and necessary time interval between contact experiences and their impact on prejudice and stereotyping has not been investigated in longitudinal research on intergroup contact. In line with Jackman and

Crane's (1986) argument, thus, the negative link between hostile sexism and contact quality I found in the earlier cross-sectional studies could be an artefact or simply due to the influence of third variables. Alternatively there may be third variables at work in Study 9 or the unexpected finding may be caused by statistical suppression.

Related to this is John Stuart Mill's (1806 – 1873) third condition for causation: The necessity of ruling out other explanations for the cause-effect relationship under investigation (see Pettigrew, 1996). This condition is not fulfilled in Study 9. Thus, even though Study 9 provides stronger evidence for the causal direction of the contact – prejudice link than the previous studies in this thesis, it is not finally conclusive. However, given the infinite possibilities of alternative explanations or confounding variables interfering with the proposed causal relationships in Study 9, this goal will always be challenging to achieve.

Menard (2002) discusses practical issues in longitudinal research. One of those problems is panel attrition, particularly the magnitude and pattern of attrition. Panel attrition in Study 9 was 54% over a time interval of 6 months. This is a very high attrition rate given the short time interval and it maybe that the mode of administration (online questionnaire) undermined participants' commitment to participation. Menard (2002) suggests techniques to trace participants in longitudinal research such as obtaining the names and addresses of parents or repeated annual mailings such as birthday cards. However, these were not feasible for Study 9. Future research should maybe try to replicate the findings of Study 9, relying exclusively on paper and pencil administration of the questionnaires.

Study 9 provides evidence for the claim that cross-gender contact does not reduce

sexism but sexism leads to selective contact choices in terms of romantic partner preferences. Previous studies (Studies 2 & 3) provided evidence for a significant negative link between contact quality and hostile sexism, but no such link for contact quality and benevolent sexism. Moreover, both studies failed to provide evidence for the causal sequence of this relationship. Studies 6 and 7 then provided quasi-experimental evidence for a causal sequence in which sexism predicts contact preferences. Study 9 addressed this question longitudinally and is cautiously supportive of the argument presented in this thesis.

Chapter 8:

Summary, Conclusions and Suggestions for Future Research

This chapter summarises and discusses the findings of the current research programme. The background and aims of this thesis are reviewed first, followed by a summary of the results presented in this thesis. Subsequently, I discuss the theoretical and practical implications of these findings. The role of hostile and benevolent sexism and cross-gender contact in the maintenance of the status quo is discussed and points about access to equal employment opportunities, childcare facilities and the role of sexism and endorsement of romantic beliefs in women are made. The chapter concludes with an outline of the limitations of the presented research programme and directions for future research.

Background & Aims of Thesis

The aim of this thesis was to establish whether cross-gender contact can reduce ambivalent sexism directed at women. Chapters 1 and 2 introduced the theoretical background and linked ambivalent sexism theory (e.g. Glick & Fiske, 1996) and the intergroup contact hypothesis (Allport, 1954). Utilising predictions from social role theory (e.g. Eagly, 1987; Eagly & Wood, 1999) and the stereotype content model (e.g. Fiske et al., 1999, 2002), this thesis concludes that there is a link between ambivalent sexism and cross-group contact between women and men. A central element of this thesis was the causal sequence problem as posed by Pettigrew (1998). Yet the studies presented indicate that it is not cross-gender contact which reduces sexism but sexism that leads to selective contact preferences in men.

The initial idea of this doctoral research was that if ambivalent sexism entails gender based forms of prejudice, cross-gender contact may challenge men's sexism. Ambivalent sexism leads to a number of negative outcomes for women (e.g. Abrams et al., 2003; Glick et al., 2002). Thus, similar to racism, challenging ambivalent sexism may reduce negative outcomes for the disadvantaged group. To my knowledge, there is no published research on cross-gender contact and sexism.

Hacker (1951) and Jackman (e.g. 1994) address the double standards of gender relations and their contribution to the maintenance of the status quo (see Jost & Kay, 2005). There are several publications which explain the mechanisms behind these double standards (e.g. Jackman & Crane, 1986). People generally seem to look for romantic partners who hold a similar attitude structure to themselves (e.g. Hendrick et al., 1988) and, depending on their

traditional or non-traditional stance, emphasise different things in their relationships (Critelli et al., 1986). As has been discussed in Chapters 2 and 6, it is particularly in non-traditional relationships where the man's respect for his partner is important (Critelli et al., 1986). However, as for example Johannesen-Schmidt and Eagly (2002) and Travaglia et al. (2009) demonstrate, romantic partner preferences are not independent of people's gender attitudes. By choosing a traditional female partner, men seem to pick a spouse who does not confront their pre-existing attitudes but they avoid intimate long-term contact with non-traditional females who might challenge their sexism.

Particularly in traditional relationships, the female partner's respect for the male partner is important (Critelli et al., 1986) but not necessarily vice versa, since a traditional woman is likely to be perceived as having low status (see argument in Chapter 2). According to the argument in this thesis, men low in sexism are more likely to prefer a non-traditional partner, with the emphasis of the relationship on the male partner's respect for the female partner (Critelli et al., 1986), whom he perceives as highly competent (c.f. Eckes, 2002, Fiske et al., 2002, 2007). However, men high in sexism are likely to avoid romantic encounters with non-traditional women (see Study 8). Several studies (e.g. Chen et al., 2009; Eastwick et al., 2006; Johannesen-Schmidt & Eagly, 2002; Lee et al., 2010b; Travaglia et al., 2009) tested the link between ambivalent sexism and partner preferences. However, all of them (except for Travaglia et al., 2009) present correlational data and none of them operates in the cross-gender contact framework.

From this theoretical background, a number of hypotheses were developed to be tested in this thesis. In general, the theoretical reasoning implies the longitudinal null hypothesis that contact does not change sexism. This thesis aimed to establish the sexism – contact link

and its causal sequence. Based on the high stability of both forms of sexism and on the findings by, for example, Johannesen-Schmidt and Eagly (2002) and Travaglia et al. (2009) it was reasonable to assume that the causal sequence operates in the opposite direction. Thus, sexism was hypothesised to predict romantic partner preferences. As these partner preferences are in line with sexist men's pre-existing notion of a woman's place, their attitudes are not challenged.

Summary of Results

In Chapter 3, Study 1 assessed the direction of causality of the link between contact and sexism. Study 1 took the valence (positive versus negative) of the contact experiences into account and used the ease of retrieval paradigm by Schwarz et al. (1991) to implement the experimental manipulation. The results indicated that men's contact experiences did not have a significant impact on hostile and benevolent sexism.

For Studies 2 and 3 I used the salience manipulation paradigm by Schwarz and Strack (1981) and introduced contact quality as a variable (QAC, Islam & Hewstone, 1993). The question in both studies was whether the correlation between contact quality and sexism was stronger when contact quality was measured first instead of when sexism was measured first. This would have indicated that good quality contact causally impacts on sexism (see Schwarz & Strack, 1981). Both studies yielded a negative correlation between hostile sexism and contact quality but no such correlation between benevolent sexism and contact quality. Study 2 addressed contact experiences in everyday life and Study 3 focussed on contact within romantic relationships. Neither study provided insight into the causal sequence of the contact – sexism relationship. Study 4 was a simplification of Study

1, which focused on the context of romantic relationships and did not indicate statistically significant impact of cross-group contact on either form of sexism.

The studies in Chapter 5 had two purposes: Study 5 linked the traditional and non-traditional subtype of woman by Siebler et al. (2008) to the stereotype content model (Fiske et al., 2002) and Study 6 tested quasi-experimentally whether ambivalent sexism predicts partner (i.e. contact) preferences in men. Study 5 provided evidence that the traditional woman was perceived as significantly warmer than competent while the opposite was true for the non-traditional woman. In addition, the traditional woman was perceived as significantly warmer but less competent than the non-traditional woman. Study 6 provided evidence that benevolent sexism, in particular, predicts the wish for a relationship. However, the interaction terms between either form of sexism and condition (traditional vs. non-traditional woman) did not reach significance. Nevertheless, a simple slopes analysis yielded a significant link between benevolent sexism and the wish for a relationship with the traditional but not with the non-traditional woman.

In Study 7 I added two dependent variables: Contact quality and relationship satisfaction. Regression analyses yielded significant interaction effects between benevolent sexism and condition for the wish for a relationship, relationship satisfaction and contact quality. Simple slopes analyses indicated – across all three dependent variables – a clear preference for the traditional over the non-traditional woman by men high in benevolent sexism. A mediation analysis for the traditional woman condition indicated that the link between benevolent sexism and the wish for a relationship was fully mediated by anticipated high relationship satisfaction. Study 8 intensified the experimental manipulation of Studies 6 and 7 by adopting parts of the imagined contact paradigm (Crisp et al., 2008).

Benevolent sexism generally impacted on the wish for a relationship. A significant interaction effect for hostile sexism and condition on the wish for a relationship indicated that the higher participants scored in hostile sexism, the more they rejected the idea of having a relationship with the non-traditional woman. Contact quality was negatively predicted by hostile sexism and positively predicted by benevolent sexism. Moreover, hostile sexism strongly and negatively predicted contact quality for men low in benevolent sexism and there was a significant negative relationship between hostile sexism and contact quality in the non-traditional woman condition. In the non-traditional woman condition, anticipated low contact quality fully mediated the relationship between hostile sexism and the wish for a relationship.

Finally, Chapter 7 reported the findings of a longitudinal study that was intended to conclusively answer the question regarding the causal sequence of the sexism – contact link. Study 9 included ratings of male participants' actual partner preferences and their assessment of the warmth and competence of their ideal partner. Study 9 showed that hostile and benevolent sexism are very stable over six months. In line with Travaglia et al. (2009), benevolent sexism predicted the preference of a traditional partner but there was no indication that hostile sexism leads to the rejection of a non-traditional partner. Instead, the preference for a traditional partner predicted a reduction in hostile sexism at a later time.

Theoretical Implications of the Findings

Allport's (1954) intergroup contact hypothesis states that contact has the propensity to reduce prejudice, particularly under the conditions of equal status, the pursuit of common goals, authority support and cooperation. Pettigrew (1997) provides more contemporary

evidence for intergroup contact reducing prejudice towards ethnic minorities, using non-recursive regression models. The causal sequence problem is addressed by Pettigrew (1998), who also introduces a longitudinal perspective into contact research. A recent meta-analysis by Pettigrew and Tropp (2006) assembled 515 studies and presents evidence that intergroup contact reduces prejudice in a variety of intergroup contexts.

However, there have also been critical voices that dispute the effectiveness of contact in at least some settings. Jackman and Crane (1986) for example show that inequalities in socioeconomic status between Whites and Blacks prevent positive contact effects despite cross-group friendship bonds. Hacker (1951) argued that the traditional form of marriage is inherently based on inequality between the two partners. This becomes particularly apparent once one takes system justification arguments into account (e.g. Jost & Banaji, 1994; Jost & Kay, 2005). Jost and Kay (2005) demonstrate that framing gender roles as complementary makes women more likely to accept and justify the status quo. This thesis provides evidence that sexist men prefer female partners who endorse this idea of gender complementary and adopt the traditional female gender role (Studies 7 and 9). Jost and Kay (2005) argue that communal stereotypes of women may be functionally equivalent to benevolent paternalism (e.g. Jackman, 1994). It is therefore not surprising that high levels of benevolent sexism in men are related to stronger preferences of a traditional, i.e. warm, communal, romantic partner.

With reference to the contact hypothesis and its essential and facilitating conditions, Dixon et al. (2005) state that "everyday contact between groups bears little resemblance" to the ideal world implied by the fulfilment of the conditions for positive contact (p. 699). The results presented here indicate that men make selective contact choices which, from a

contact researcher's point of view, might lead to violations of the essential conditions of positive contact (Studies 5, 7, 8, 9). Yet the men making these selective choices appear to perceive their partner preferences as a way of establishing positive contact (Study 7). According to the US Bureau of Labor Statistics (2010) and the United Nations Development Programme (2009), men often gain higher incomes, status and power than women, with more women than men in part-time, low paid jobs. Interestingly, non-traditional women, such as ultra-achieving and high-achieving career women, are less likely to be married and have children (Hewlett, 2002). Thus, men's partner preferences for traditional women may be a way of maintaining a system that helps to stabilise male advantage over women while men believe to have positive contact with them.

These traditional partner preferences appear to undermine future contact between the two partners in traditional relationships (e.g. Antill, 1983; Henley & Kramarae, 1991; Ickes & Barnes, 1978; Ickes, 1993). Moreover, there is evidence for gender segregation in the workplace (e.g. Reskin, 1984) and in friendships even in married couples (Maccoby, 1990). This suggests a certain degree of 'parallel lives' (Dixon et al., 2005, p. 700) within the most intimate arena of cross-group contact, which is similar to the tendency of informal systems to breed segregation (see Dixon & Durrheim, 2003). Thus, cross-gender contact might be an example of a context in which contact between groups is inefficient as a means to reducing prejudice (see Studies 1 to 4).

Studies 7 and 8 indicate that men, in line with their pre-existing levels of sexism, construct their contact choices as way of either achieving satisfying and happy romantic relationships (Study 7) or avoiding low quality, possibly problematic romantic relationships (Study 8). Thus, men prefer partners that ensure future happiness and a satisfactory

romantic relationship. Apparently, sexist men cannot envisage this kind of positive relationship with a woman who, more or less, violates the traditional, complementary, gender role (Study 8). This suggests that contact is not suitable to combat ambivalent sexism but rather that pre-existing sexism levels shape selective contact choices in men.

Study 5 linked the two female characters provided by Siebler et al. (2008) to the dimensions of the stereotype content model and provided evidence that the warmth and competence dimensions can be applied on the level of individuals. This provides evidence for Judd et al.'s (2005) claim that the dimensions of agency/competence and communality/warmth are universal to social judgement. The findings of Study 5 also extend the stereotype content model from the societal to the interpersonal level and demonstrate that stereotype content can be applied for person perception over and above the judgement of groups.

Studies 7 and 8 provide evidence how the classification along either dimension of the stereotype content model might backfire. Positive contact includes equal status and cooperation. However, depending on the dimension on which a woman is perceived as scoring highly, she violates one of those conditions. According to the stereotype content model, non-traditional women are perceived as having high status, which is beneficial for the reduction of prejudice and inequality. However, these women are also likely to be perceived as competitive, thus undermining the positivity of the contact for some men. The opposite mechanism might be true for traditional women: Traditional women, according to the stereotype content model, are perceived as cooperative, however, they are also perceived as possessing low status; thus, potentially hindering positive contact effects to occur. Hence, in men's contact with either female subtype, essential conditions for contact

to reduce prejudice as outlined by Allport (1954) are violated.

Fiske et al. (2002) note the importance of the mixed stereotypes for the maintenance of the status quo, whereby the ascription of high competence and low warmth justifies resentment and the ascription of low competence and high warmth justifies subordination. The findings of Fiske et al.'s (2002) second study suggest that non-traditional subtypes of women might be perceived as possessing male characteristics (see Fiske et al., 1999; 2002, Studies 1 & 3) and are hence violating the female gender role. The mediation analysis in Study 8, demonstrating strong rejection of the idea of a romantic relationship with a non-traditional partner, is in line with this finding. As I argued in Chapter 6, this finding also fits the specific socio-cultural background of the participants who took part in Study 8 in the sense that more traditional gender roles in West Germany lead participants to reject a non-traditional female subtype while East German participants seemed more likely to embrace a traditional female subtype (e.g. Rosenfeld et al., 2004).

Consistent with the argument by Eagly et al. (2004) this thesis provides evidence that some men prefer romantic partners that reflect the predominant Western family system of a male provider and a female homemaker. Eagly and Wood (1999) propose a "cost-benefit analysis of mating" (p. 415), in which men maximise their outcomes with the choice of a partner who is successful in the domestic role. This thesis adds to this argument in two ways: It corroborates the existing literature, taking a different methodological approach and substantially different samples of participants. With reference to partner preferences, this thesis was the first to link the stereotypic dimensions of warmth and competence proposed by the stereotype content model with the literature on ambivalent sexism and partner preferences in the framework of social role theory. In addition, the inclusion of the RAS

(Hendrick, 1988), the REL and the QAC scales (Islam & Hewstone, 1993) extended previous research. Preferring a subordinate but nice over an equal but competitive partner as indicated by Studies 7, 8 and 9 is also consistent with Eagly's (1987) notion of roles adopted by women and men according to societal expectations. Corroborating evidence shows that men are still likely to meet resistance if they want to adopt the domestic role in order to support their partner's career or participate in child care (e.g. Farrell, 2001; Kimmel, 1993).

Apart from this, ambivalent sexism has been discussed as a form of system justification (e.g. Cikara et al. 2009; Jost & Kay, 2005; Napier, Thorisdottier & Jost, 2010). The findings presented in this thesis are consistent with this argument by demonstrating that 'good women' are not only put on a pedestal but also more likely to be chosen as romantic objects by men holding benevolent sexist ideologies. In contrast, Study 8 supports Tavris and Wade's (1984) notion that 'bad women' are placed 'in the gutter' or – alternatively – avoided as romantic partners. Thus, men who endorse high levels of sexism seem to resist contact with women who would challenge their prejudice and therefore, prevent positive contact effects from occurring. On the contrary, these men seem to be inclined to seek close and intimate relationships with women who are unequal in status and therefore do not challenge sexist attitudes (see Jackman & Crane, 1986). This is consistent with Dixon et al.'s (2005) discussion of limits of the contact hypothesis in some contexts and Jackman's (1994) segregation argument.

Practical Implications of the Findings

The findings reported here, and their theoretical implications, are also practically important. Bohner, Ahlborn and Steiner (2010) suggested that challenging women's approval of men's benevolent sexism along with their own benevolent sexist beliefs may be one way of raising awareness of the negative impact of benevolent sexism. There is also evidence for the effectiveness of brief educational interventions in reducing approval of benevolent sexism (Good & Woodzicka, 2010). Moreover, Vernet, Vala, Amâncio and Butera (2009) succeeded in reducing hostile sexism and improving attitudes towards feminists in some of their participants, using a teaching-based approach. However, the latter research only involved female participants whereas it is particularly men's hostile sexism that produces detrimental outcomes for women (e.g. Abrams et al., 2003; Glick et al, 2002; Viki et al., 2006). Nevertheless, educational programmes appear to be a better way to challenge ambivalent sexist attitudes than cross-gender contact and romantic relationships.

In line with Jackman and Crane's (1986) argument, stabilising and improving status equality between the sexes may help to combat old-fashioned gender belief systems. Jackman and Crane (1986) emphasise the importance of equality in economic status as a catalyst for the improvement of intergroup attitudes and the promotion of equality. Thus, it is important to ensure that women receive the same pay for their work as men and have equal access to all professions (see the literature on the glass ceiling: Masser & Abrams, 2004; Ridgeway, 2001). However, an additional barrier to women's career aspirations and income prospects appears to be some women's endorsement of beliefs indulging in

romantic notions of a 'Prince Charming' or 'White Knight', causing a glass slipper effect (Rudman & Heppen, 2003).

There are additional obstacles to women's equality. Having children but lacking appropriate childcare opportunities can limit women's access to employment (Presser & Baldwin, 1980) and might potentially undercut further economic opportunities (see Mason & Kuhlthau, 1992). Furthermore, research indicates that, once a working woman becomes a mother, she tends to be perceived more in line with the traditional female role: Less competent but warmer, indirectly leading to disadvantages in hiring decisions, promotions and education of working mothers in contrast to working fathers (Cuddy, Fiske & Glick, 2004). On the other hand, successful women tend to make a 'creeping non-choice' (Hewlett, 2002, p. 2) by postponing having children, pushing reproductive boundaries, which often results in 'not having it all' for those non-traditional women (Hewlett, 2002, see also Wolfinger, Mason & Goulden, 2008).

A recent report on Al Jazeera (Al Jazeera, July 1st 2010) discussed marriage migration between North and South Korea. The Al Jazeera report implied that women's rising levels of education and work force education in tandem with the traditional expectation that women take the backseat to men's ambitions are among the causes for the high divorce and low marriage and birth rates in South Korea. Thus, a rising number of South Korean men now attempt to find a North Korean wife (Al Jazeera, July 1st 2010). Similar trends of female marriage migration have been reported from other countries (e.g. Le Bach, Bélanger & Khuat, 2007, Kofman, 1999; Piper, 2003). Thus, it is possible that, once women start to abandon their traditional role in a given society, some men start looking for more traditional-minded partners from elsewhere. However, female migration, particularly from poorer countries, has also been shown to result in human trafficking, the trading of mail-

order brides and forced prostitution (e.g. Le Bach et al., 2007; Kofman, 1999; Kristof & WuDunn, 2009; Piper, 2003).

Limitations and Future Research

According to Hacker (1951), the traditional form of marriage is an intimate relationship of inequality and the findings of this thesis indicate that contact within romantic relationships is not suitable to reduce sexism. Pettigrew (1997, 1998) emphasised the importance of intergroup friendship. Future research thus could investigate whether friendship between women and men can achieve the reduction in ambivalent sexism that romantic contact seems not to be able to accomplish. In this context, it would be important to establish the causal sequence of the friendship – sexism link, as there appears to be some tendency for women and men to live in segregated worlds (see Bukowski et al.1993; Maccoby, 1990; Pratto et al., 1997; Reskin, 1984). These forms of segregation do not only refer to role segregation but also spatial segregation (see Jackman, 1994; Chapters 1 & 4). Consequently, it is theoretically interesting for future research to establish whether ambivalent sexism can be challenged by cross-gender friendships.

Compared to published contact literature, the research presented in this thesis is somewhat unusual in two ways: Firstly, the manipulations used to simulate contact have not been used in this form in the existing contact literature. Crisp et al. (2008) introduced the imagined contact paradigm, which comes closest to the contact salience/contact memory manipulations in Studies 1 to 4. These studies were conducted between September 2006 and September 2007, thus, the imagined contact paradigm had not been published at this point. An additional problem of the research question addressed here is that the contact of

interest takes place within a confined, private setting and is difficult to observe and manipulate. Thus, creative alternatives were necessary to allow for the manipulation of cross-gender contact. This has two implications for future research. Future research may want to conduct contact studies in the gender context using more traditional experimental or longitudinal paradigms. In addition, future research could attempt to refine the experimental paradigms used in this thesis and optimise their impact.

The second way in which the research in this thesis is unusual is the choice of outcome measures. Traditionally, intergroup contact research has not utilised scales measuring constructs as stable as hostile and benevolent sexism as outcome measures. The intergroup contact literature has used outcome measures such as the feeling thermometer (e.g. Paolini, Hewstone & Cairns, 2007) or measures of infrahumanisation, desired closeness and evaluations on stereotypic dimensions (e.g. Brown et al., 2007) as dependent variables to approximate prejudice towards outgroups. However, since previous studies indicate very negative outcomes for women based on men's ambivalent sexist attitudes (e.g. Abrams et al., 2003; Viki & Abrams, 2002), it was deemed particularly important to attempt to challenge these attitudes. Moreover, given the 'women are wonderful' effect (Eagly & Mladinic, 1993), measures such as the feeling thermometer might not have picked up negative evaluations of women. However, the studies presented here raise the question whether attitudes which are bordering to social ideologies can be challenged by means of intergroup contact. Future research may thus want to employ less traditional and, arguably, more stable attitude measures such as the modern racism scale (McConahay, 1986) or the ambivalent sexism inventory (Glick & Fiske, 1996) to test intergroup contact predictions.

In the instance of ambivalent sexism, another theoretical approach to investigating

possible mechanisms behind the reduction of sexism might be the common ingroup identity model (e.g. Gaertner & Dovidio, 2000). The research in this thesis, with the exception of the first analysis in Study 9, only investigated partner preferences. However, taking on a more long-term perspective might lead to better insight into the mechanisms between cross-gender contact and changes in sexism. For example, it is reasonable to assume that people's perspectives shift from a categorisation of 'us' and 'them' based on gender to a categorisation of 'us' and 'them' based on core family ties (i.e. including one's wife or husband) versus non-family members. Thus, future research could fill this gap in the literature by looking at the sexism levels of older individuals and individuals who are involved in long-term, committed romantic relationships. The time scale of the studies presented in this thesis might simply have been too short to detect changes in sexism through romantic experiences.

Several studies indicate that attitudes and prejudices towards women change when people get older. Thus, the participants might have been too young and the assessed relationships or hypothetical relationships not meaningful enough. Ford and Donis (1996) found that tolerance of sexual harassment by men towards women decreased with age until age 50 years. A study by Aromäki et al. (2002) showed that hostile masculinity decreased with age; older men were much less hostile towards women than younger men. Concerning the finding regarding the lack of the correlation between hostile and benevolent sexism among community men, Glick and Fiske (1996) argue that younger men may tend to adopt either generally sexist or egalitarian beliefs, depending on their socialisation, whereas older men might have more experience in relationships with women. These findings are in line with the reasoning of Ford and Donis (1996) that "as men age, experiential effects such as

marriage and fatherhood may cause an increased awareness of and sensitivity to the negative effects of sexual harassment" (p.631).

In contrast, the studies by Sibley and colleagues (e.g. Sibley et al., 2007a, 2007b) imply a high stability of ambivalent sexism over time and Study 9 corroborates these results over a time interval of six months. There are two implications from the research above that have not been addressed in this thesis. It would be desirable to have more longitudinal research, such as life span research, using the ASI to establish the stability of hostile and benevolent sexism over time. The longest time interval over which the ASI has been tested was twelve months on a sample of 76 females (Sibley et al., 2007a) and nine months on a sample of 37 males (Travaglia et al., 2009). Study 9 included a larger male sample but only covered a six months time interval. Thus, a more comprehensive longitudinal approach would be desirable, particularly in research involving male participants.

There also remain open questions with regard to female participants. Johannesen-Schmidt and Eagly (2002) found for women an association between ambivalent sexism levels and partner preferences. In addition, the findings by Travaglia et al. (2009) show that women display partner preferences based on their levels of ambivalent sexism. However, these studies do not operate within the framework of the intergroup contact hypothesis.

My current research also involved female participants to approach the theoretical questions presented in this thesis. Preliminary findings from these studies, which are not included in this thesis, mirror the findings for the male samples. First analyses indicate that the equivalents of Studies 1 and 4 including female participants do not yield significant results. In addition, I possess unpublished data for which initial analyses show that, in line

with Studies 6 and 7, women scoring high on benevolent sexism prefer a traditional male partner. In these studies, the equivalent of the fictitious character 'Julia' was a male character 'Tobias'. Yet for 'Tobias' being 'traditional' meant being the career-oriented bank manager while being 'non-traditional' meant being the primary school teacher. A task for the future is therefore to further analyse and disseminate these data from female participants.

In general, as Glick and Hilt (2000) point out, in the gender context, the prejudice men as the dominant group hold towards women as the subordinate group is downwards directed paternalistic prejudice. In contrast, prejudice directed from women to men qualifies as envious prejudice and is directed upwards. Tropp and Pettigrew (2005) show that effects of contact tend to be weaker for minority groups compared to majority groups. Thus, it would be interesting to investigate whether possible contact effects on ambivalent sexism and ambivalence towards men – or sexism effects on contact – differ by participant gender.

Finally, the research presented here has exclusively utilised quantitative self-report methods to investigate the sexism – contact relationship. However, self-report methods can lead to reporting bias and socially desirable responding. Future research could therefore either aim to investigate the topic using more indirect or implicit measures or applying qualitative approaches. In addition, none of the studies presented in this thesis has manipulated ambivalent sexism in order to clarify the sexism – contact link. Further research might use procedures such as priming (e.g. Bargh & Chartrand, 2000) to manipulate ambivalent sexism. Finally, this thesis has not investigated women's responses to men's ambivalent sexism in romantic relationships. Kilianski and Rudman (1998) and

Bohner et al. (2010) assessed the question of women's responses to non-sexist, benevolent sexist, hostile sexist and ambivalent sexist male profiles. Bohner et al. (2010) provide evidence that women prefer the benevolent sexist man but considered him least typical. In contrast, women rated the ambivalent sexist man as highly typical. This implies that women are aware of the coexistence of the carrot and the stick (Bohner et al., 2010; Lee et al., 2010a) but prefer the carrot nevertheless.

Summary

This thesis linked ambivalent sexism theory (e.g. Glick & Fiske, 1996) with the intergroup contact hypothesis (e.g. Allport, 1954; Pettigrew, 1998) and findings on partner preferences and relationship satisfaction. Moreover, the research presented in this thesis is based on the stereotype content model (Fiske et al., 2002) and social role theory (Eagly, 1987). The findings of this thesis have important social and practical implications such as the need to find ways to challenge men's as well as women's ambivalent sexism, achieving more equality in economic status and access to high-status employment for women, providing access to childcare facilities and implementing interventions to prevent human trafficking, the trade with mail-order brides and forced prostitution.

However, the current research also has limitations that need to be addressed in future research. For example, future research might want to investigate whether cross-gender friendship can reduce sexism. In addition, adopting a longer-term, developmental perspective might be advantageous. Lastly, combining the quantitative self-report methods employed in this thesis with either more indirect or implicit and/or qualitative methods

might help to construct a more complete picture of the link between contact and sexism in romantic relationships.

The research presented here tested whether cross-group contact reduces sexism but then moved on to provide evidence that the causal sequence of the link between ambivalent sexism and cross-gender contact operates in the opposite direction. Although a number of recent studies have considered the impact of ambivalent sexism on partner preferences (e.g. Johannesen-Schmidt & Eagly, 2002; Travaglia et al., 2009), none of them has done so in the context of the intergroup contact hypothesis. Moreover, the causal direction of this link has never been investigated in a sufficiently large male sample and the underlying mechanisms of anticipated relationship satisfaction and contact quality have not been previously tested. Thus, this thesis provides novel evidence that ambivalent sexism in romantic relationships constitutes a boundary condition of Allport's (1954) intergroup contact hypothesis.

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Appendix A

Contact Quality Scale (QAC, Islam & Hewstone, 1993)

	Item	Scale Anchors
Item 1	In the situation you just described, did you perceive the contact as being equal?	1 = *definitely not* 7 = *definitely yes*
Item 2	...as being involuntary or voluntary?	1 = *definitely involuntary* 7 = *definitely voluntary*
Item 3	...as being superficial or intimate?	1 = *very superficial* 7 = *very intimate*
Item 4	Did you experience this encounter as pleasant?	1 = *not at all* 7 = *very*
Item 5	...as competitive or cooperative?	1 = *very competitive* 7 = *very cooperative*

Table A1

Principal Component Analysis of QAC scale used in Study 2

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

	QAC1	QAC2	QAC3	QAC4	QAC5
QAC1	-				
QAC2	.67**	-			
QAC3	41**	.39**	-		
QAC4	.43**	.47**	.41**	-	
QAC5	.44**	.54**	.36**	.83**	-

Table A2

Eigenvalues of the Principal Component

Component	**Initial Eigenvalues**			**Extraction Sums of Squared Loadings**		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.003	60.068	60.068	3.00	60.068	60.068
2	0.826	16.525	76.593			
3	0.682	13.633	90.226			
4	0.331	6.612	96.837			
5	0.158	3.163	100.000			

Table A3

Unrotated component matrix for the QAC items

	Component
	1
QAC1	.758
QAC2	.800
QAC3	.630
QAC4	.829
QAC5	.840

Appendix B

Adapted Items for the Contact Quality Scale (QAC) used in Study 3.

	Item	**Scale Anchors**
Item 1	In your current or most recent romantic relationship, do/did you perceive the contact between the two of you as being equal?	1 = *definitely not* 7 = *definitely yes*
Item 2	...as being involuntary or voluntary?	1 = *definitely involuntary* 7 = *definitely voluntary*
Item 3	...as being superficial or intimate?	1 = *very superficial* 7 = *very intimate*
Item 4	Do/did you experience this relationship as being pleasant?	1 = *not at all* 7 = *very*
Item 5	...as competitive or cooperative?	1 = *very competitive* 7 = *very cooperative*

Appendix C

Wish for a relationship scale (REL): 1 = *strongly disagree* to 7 = *strongly agree*[9]

	German REL Items
Item 1	Ich wäre daran interessiert, mit einer Person wie Julia auszugehen.
Item 2	Ich wäre daran interessiert, eine sexuelle Beziehung mit einer Person wie Julia zu führen.
Item 3	Mit einer Person wie Julia könnte ich mir eine längerfristige romantische Beziehung vorstellen.
Item 4	Ich könnte mir vorstellen, eine Person wie Julia zu heiraten.
Item 5	Ich könnte mir eine Person wie Julia als Mutter meiner Kinder vorstellen.
Item 6	Ich könnte mir vorstellen, mit einer Person wie Julia alt zu werden.
Item 7	Julias Lebensziele sind meinen Lebenszielen ähnlich.
Item 8	Ich könnte mir vorstellen, mit einer Person wie Julia zu leben.
Item 9	Ich mag die Einstellungen von Menschen wie Julia nicht. (reverse coded)
Item 10	Im Umgang mit einer Person wie Julia würde es vermutlich viele Probleme und Streitereien geben. (reverse coded)
Item 11	Ich finde Menschen wie Julia unsympathisch. (reverse coded)
Item 12	Ich glaube eine Person wie Julia würde in einer romantischen Beziehung gut zu mir passen.

	English REL Items
Item 1	I would be interested in dating a person like Julia.
Item 2	I would be interested in having a sexual relationship with a person like Julia.
Item 3	I could imagine having a long-term romantic relationship with a person like Julia.
Item 4	I could imagine marrying a person like Julia.
Item 5	I can see a person like Julia being the mother of my children.
Item 6	I can picture growing old with a person like Julia.
Item 7	Julia's aims in life are similar to my aims.
Item 8	I can imagine to live with a person like Julia.
Item 9	I don't like the attitudes of people like Julia. (reverse coded)
Item 10	Dealing with a person like Julia would probably cause lots of problems and result in many fights. (reverse coded)
Item 11	I dislike people like Julia. (reverse coded)
Item 12	I think a person like Julia would be a good match for me in a romantic relationship.

[9] Items REL9, 10 and 11 are reverse coded but have been re-coded prior to all analyses reported in Appendix C

Table C1

Eigenvalues of the Principal Component

Component	**Initial Eigenvalues**			**Extraction Sums of Squared Loadings**		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	7.440	61.996	61.996	7.440	61.996	61.996
2	1.454	12.120	74.116	1.454	12.120	74.116
3	0.838	6.985	81.101			
4	0.611	5.088	86.190			
5	0.430	3.580	89.770			
6	0.357	2.971	92.741			
7	0.314	2.619	95.360			
8	0.171	1.421	96.781			
9	0.133	1.109	97.890			
10	0.114	0.950	98.840			
11	0.083	0.691	99.531			
12	0.056	0.469	100.00			

Table C2

Unrotated component matrix for the REL items

	Component	
	1	2
REL1	.820	-.110
REL2	.508	-.455
REL3	.933	-.101
REL4	.900	-.152
REL5	.879	-.140
REL6	.941	-.067
REL7	.663	-.159
REL8	.928	-.139
REL9	.600	.635
REL10	.576	.641
REL11	.561	.557
REL12	.928	-.096

Appendix D

Relationship Assessment Scale adapted from Hassebrauck (1991, German version) and English version (Hendrick, 1988).

	German adapted RAS Items	Scale Anchors
Item 1	Wie gut käme Julia als Ihre Partnerin Ihren Bedürfnissen entgegen?	1 = *überhaupt nicht* 5 = *vollkommen*
Item 2	Wie zufrieden wären Sie insgesamt mit Ihrer Partnerschaft mit Julia?	1 = *sehr unzufrieden* 5 = *sehr zufrieden*
Item 3	Wie gut wäre Ihre Beziehung mit Julia verglichen mit anderen?	1 = *sehr gut* 5 = *sehr schlecht*
Item 4	Wie oft würden Sie sich wünschen, diese Beziehung mit Julia nicht eingegangen zu sein?	1 = *niemals* 5 = *sehr oft*
Item 5	In welchem Maß würde diese Beziehung mit Julia Ihre ursprünglichen Erwartungen erfüllen?	1 = *überhaupt nicht* 5 = *vollkommen*
Item 6	Wie sehr würden Sie Julia als Ihre Partnerin lieben?	1 = *überhaupt nicht* 5 = *vollkommen*
Item 7	Wie viele Probleme gäbe es in Ihrer Partnerschaft mit Julia?	1 = *sehr wenige* 5 = *sehr viele*

	English translation of adapted RAS items	Scale Anchors
Item 1	How well would Julia as your partner meet your needs?	1 = *not at all* 5 = *completely*
Item 2	In general, how satisfied would you be with your relationship with Julia?	1 = *very dissatisfied* 5 = *very satisfied*
Item 3	How good would your relationship with Julia be compared to most?	1 = *very good* 5 = *very poor*
Item 4	How often would you wish you hadn't gotten into a relationship with Julia?	1 = *never* 5 = *very often*
Item 5	To what extend would a relationship with Julia meet your original expectations?	1 = *not at all* 5 = *completely*
Item 6	How much would you love Julia as your partner?	1 = *not at all* 5 = *very much*
Item 7	How many problems would there be in your relationship with Julia?	1 = *very few* 5 = *very many*

Appendix E.

Contact quality scale (QAC) adapted from Islam and Hewstone (1993) German translation & English version.

	German adapted QAC items	Scale Anchors
Item 1	Würden Sie den Kontakt mit Julia als gleichberechtigt empfinden?	1 = *überhaupt nicht* 7 = *auf jeden Fall*
Item 2	... als unfreiwillig oder freiwillig?	1 = *absolut unfreiwillig* 7 = *absolut freiwillig*
Item 3	... als angenehm?	1 = *überhaupt nicht* 7 = *sehr*
Item 4	... als konkurrenzbetont oder kooperativ?	1 = *sehr konkurrenzbetont* 7 = *sehr kooperativ*
Item 5	... als oberflächlich oder vertraulich?	1 = *sehr oberflächlich* 5 = *sehr vertraulich*

	English adapted QAC items	Scale Anchors
Item 1	Would you perceive the contact with Julia as equal?	1 = *definitely not* 7 = *definitely yes*
Item 2	...as involuntary or voluntary?	1 = *definitely involuntary* 7 = *definitely voluntary*
Item 3	...as pleasant?	1 = *not at all* 7 = *very*
Item 4	... as competitive or cooperative?	1 = *very competitive* 7 = *very cooperative*
Item 5	...as superficial or intimate?	1 = *very superficial* 7 = *very intimate*