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UNIVERSITY OF SOUTHAMPTON

FACULTY OF SOCIAL AND HUMAN SCIENCES

SCHOOL OF PSYCHOLOGY

ATTACHMENT PATTERNS, PREJUDICE, AND EMPATHY

By

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A Thesis submitted for the degree of Doctor of Philosophy

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UNIVERSITY OF SOUTHAMPTON

ABSTRACT

FACULTY OF SOCIAL AND HUMAN SCIENCES

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By Elle Mae Boag

The purpose of my PhD is to examine one mechanism by which attachment security may lead to decreased prejudice, thus examining novel research hypotheses. Research supports the prediction that high attachment avoidance and high attachment anxiety are associated with high negativity toward outgroups (Hofstra, van Oudenhoven, & Buunk, 2005) and decreased empathy compared to individuals low in attachment avoidance or anxiety (e.g., Batson, Eklund, Chermok, Hoyt, & Ortiz, 2007). However, whereas fearful individuals characteristically use hyperactivating strategies to avoid rejection from others, dismissing individuals use deactivating strategies to avoid contact with others. Thus, it is important to assess how empathy influences the relation between attachment avoidance and prejudice, and between attachment anxiety and prejudice. I hypothesized that empathy would mediate the relation between attachment dimensions and prejudice. Specifically, I predicted that the relation between attachment avoidance and prejudice, and between attachment anxiety and prejudice, would be mediated by low empathy.

Dispositional attachment security and primed attachment security were examined separately in three studies. In the Study 1 the mediating role of empathy in the relationship between dispositional attachment security and prejudice was identified. In Study 2 the mediating role of empathy on the relationship between primed attachment pattern and prejudice was confirmed, providing specificity as to which aspect of empathy is the key component through which prejudice can be reduced in attachment-avoidant

individuals. Study 3 extends the findings to demonstrate that primed attachment security influences self-reported intention to discriminate and subsequent discriminatory behaviour.

Combined, the findings within this thesis make valuable contributions to social psychological understanding of why variations in prejudice toward Muslims exist, and provide evidence that have important implications in future interventions aimed to reduce prejudice.

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### Authors Declaration

I, Elle Boag declare that the thesis entitled ATTACHMENT PATTERNS, PREJUDICE, AND EMPATHY and the work presented in this thesis are both my own, and have been generated by me as the result of my own original research. I confirm that:

This work was done wholly while in candidature for a research degree at this University.

Where I have quoted from the work of others, the source is always given. With the exception of such quotations, this thesis is entirely my own work.

I have acknowledged all main sources of help.

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**Signed:** .....

**Date:** .....

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## 1. CHAPTER ONE

### 1.1. Attachment Patterns, Prejudice, and Empathy: Introduction

*“We need others. We need others to love and we need to be loved by them. There is no doubt that without it, we too, like the infant left alone, would cease to grow, cease to develop, choose madness and even death.”*

Leo F. Buscaglia (1924-1998)

Close relationships function to regulate distress in situations of perceived threat (Bowlby, 1997). Moreover, the history of experiences within close relationships influences subjective appraisal of, and response to, perceived threat (Main, 1990; Mikulincer & Shaver, 2007). Recently, social psychologists have begun to explore the pathway between perceived threat and psychological or behavioural responses from a dual-theory perspective, specifically, integrating attachment and terror management theory (e.g., Florian, Mikulincer, & Hirschberger, 2002; Mikulincer & Florian, 2000; Mikulincer, Florian, & Hirschberger, 2003). As an extension of this research Hart, Shaver, and Goldenberg (2005) propose the innovative Tripartite Security System Model, which integrates terror management theory (Greenberg, Solomon, & Pyszczynski, 1997), attachment theory (Bowlby, 1997), and motivations to preserve self-esteem and sustain consistent worldviews (Greenberg et al., 1997).

The aim of this thesis is to explore the relationship between the attachment system and the defensive strategy of prejudice towards outgroups, specifically creating a novel avenue of research by exploring whether the ability to be empathic towards outgroups will help to explain how individual differences in prejudice occur. In this chapter, I begin by reviewing theory and research relating to attachment, prejudice, and

empathy, and the interplay between these three areas. The dynamic between attachment and prejudice via empathy will be discussed, and novel predictions will be developed.

## 1.2. Attachment Theory and Research

Humans are a social species, implicitly driven to form and maintain social and emotional relationships with others (e.g., Allport, 1954/1979; Bowlby, 1997; Diener & Seligman, 2002). Given this innate compulsion, it is fair to surmise that the nature of human relationships play a part in facilitating psychological wellbeing. An established theoretical explanation regarding the importance of close relationships is attachment theory (Bowlby, 1997), which was conceptualised as a means of explaining the importance of mother-infant bonding on the psychological wellbeing of humans and non-human primates throughout the lifespan. Amalgamating psychodynamic and ethological theories with observational evidence of the effects of separation of infants from their mothers<sup>1</sup>, attachment theory offers a comprehensive view of the importance of early relationships in guiding expectations of others from infancy and throughout adulthood.

Bowlby's attachment theory emerged from the observed behaviours of infant reactions to separation from their mother(s) on entering residential nurseries or hospitals (Bowlby, Robertson, & Rosenbluth, 1952; Heinicke & Westheimer, 1966). Robertson and Bowlby (1962, as cited in Bretherton, 1992) illustrated that human infants displayed the same series of three emotional reactions to separation from their mother(s) as primatologists had found in primate infants both in the laboratory and in the field: (1) *Protest* (infant is acutely distressed, searches for mother, cries loudly, and rejects comfort from others); (2) *Despair* (infant still distressed but crying intermittent or absent,

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<sup>1</sup> The term 'mother' was used by Bowlby (1969/1997) and refers to any person who mothers the infant (primary caregiver) and to whom he or she becomes attached. This may not always be the biological mother, but can be a mother-substitute (i.e., father, grandparent, child-minder, etc.).

behaviour is withdrawn and comfort from others still rejected); and the final stage (only discussed in relation to human infants) (3) *Detachment* (infant is passive and will accept care and comfort from others, but is listless when reunited with mother showing no interest in interacting with him or her).

Bowlby (1997) argued that the complex collection of attachment feelings and behaviours, termed the 'attachment system', evolved to ensure the protection of infants from danger by maintaining proximity to the mother. As human infants (and some primate infants) have limited ability to maintain proximity in typical early development, behaviours such as crying, making eye contact, smiling, and nuzzling ensure that the infant remains close to the mother. However, when an infant develops mobility, and when unafraid, he or she will explore and master his or her surroundings using active pursuance of the mother and vocalisations towards her to maintain proximity when feeling threatened; that is, the mother is used as a 'secure base' (Ainsworth, Blehar, Waters, & Wall, 1978).

Heinicke and Westheimer (1966) challenged Bowlby's proposal that the key cause for the behaviours observed in nurseries and hospitals is the absence of the mother. Rather, Heinicke and Westheimer (1966) argued that the response to separation from the mother are not due to the *absence* of the mother, but rather due to the *strangeness* of the novel environment that infants find themselves in when entering residential care (i.e., nurseries, hospital, etc.). Heinicke and Westheimer (1966) found that the intensity of the behaviours markedly reduced when a sibling (younger or older) also entered residential nursery/hospital. This led Heinicke and Westheimer (1966) to conclude that Bowlby and his colleagues overestimated the role of the attachment bond between an infant and his or

her mother. However, the findings that separation behaviours are evident in infants *only* when the mother is absent (compared to behaviours when the mother is present) in both a strange environment (e.g., Fagin, 1966) and a familiar environment (e.g., Spiro, 1958), suggest that Heinicke and Westheimer (1966) were perhaps a little presumptuous in their criticism of Robertson and Bowlby's (1952) conclusions regarding the importance of the bond between a mother and her infant.

### **1.2.1. Attachment Processes: Normative Attachment-Related Behaviours**

Attachment theory highlights and explains typical characteristics of the attachment-behavioural system that can be applied to all people (Mikulincer & Shaver, 2007). Bowlby (1997) hypothesized that infants have an intrinsic need for attachment and exploration, and that these needs drive specific attachment behaviours evolved to maintain proximity to caregivers. The attachment behavioural system is just one of a number of species-specific behavioural systems (e.g., reproduction, exploration, fear, wariness, sociability, etc.) evolutionarily adapted to increase survival and reproduction chances (Bowlby, 1997). Two such behavioural systems are the exploratory-behaviour system and the fear-behavioural system (Bowlby, 1988). Although neither is directly responsible for the activation of the attachment-behavioural system, both are related to it insofar as a heightened sensation of fear/anxiety also leads to the activation of the attachment system (Cassidy & Shaver, 1999), and the activation of the exploratory-behavioural system can reduce attachment-related behaviours, such as proximity-seeking (Cassidy & Shaver, 1999). When an infant perceives no threat, he or she will actively explore his or her environment, learning, developing and mastering skills, and building a sense of autonomy. However, when a threat or challenge *is* perceived in the environment,

the attachment system is activated and the desire to explore the environment is superseded by feelings of anxiety/fear which activates attachment-related behaviours (e.g., crying) and proximity to a caregiver is actively sought (Bretherton, 1985; Sroufe & Waters, 1977). The display of attachment behaviours by an infant activate the caregiver's care giving system (George & Solomon, 1999) inducing the caregiver to act protectively toward the infant, thus reducing the requirement and exhibition of attachment behaviours.

In summary, the normative functions of the attachment system are to provide protection, ensure survival, and to use a primary caregiver as a secure base from which to explore the environment (Ainsworth, 1967). The activation of the attachment system provides a means of gaining felt security, comfort, and reassurance from a primary caregiver, with proximity-seeking as a principal way of attaining this goal (Bowlby, 1997; Marvin & Britner, 1999; Sroufe & Waters, 1977).

### **1.2.2. Attachment Processes: Internalised Representations**

Bowlby (1997) argued that the ontogeny of attachment relies on the infant-caregiver relationship, and that the sensitivity and responsiveness to the infant's attachment-related behaviours result in specific, learned patterns of behaviour. Attachment-related behaviours (e.g., proximity-seeking) are also related to other behavioural systems (e.g., exploratory-behavioural system) and it is the interaction between these systems that develop patterns of attachment behaviour which reflect individuals' experiences of sensitivity and responsiveness (Ainsworth et al., 1978; Bowlby, 1988). The importance of the relationship between the exploratory-behavioural system and the attachment-behavioural system in the development of individual attachment patterns is evident in observations of infant-caregiver interactions (e.g.,

Ainsworth, 1963, 1967; Ainsworth, 1972; Ainsworth, Bell, & Stayton, 1971; Ainsworth et al., 1978).

In a series of observational studies of the Ganda tribe in Uganda, Mary Ainsworth (1963) noted that between the ages of fifteen weeks and six months a distinct infant-mother bond emerged. The Ganda is a society that expects all adults to work, including the mothers of young infants. Nevertheless, when resting from work Ainsworth (1963) noted that infants were either held, propped on mother's lap, or free to explore the room whilst also remaining free to make physical or eye contact with mother at all times (Bowlby, 1997). From this series of studies, Ainsworth determined that by the age of six months the majority of infants showed one of two types of distinct attachment bonds with their mothers that reflected the quality of the mother-infant interactions (Bretherton, 1992). Secure infants were content to explore their surroundings, cried infrequently, and had mothers who were sensitive and responsive to their infant's needs. Insecure<sup>2</sup> infants cried frequently, even when held by his or her mother, and did not attempt to explore their surroundings. The mothers of insecure infants were less sensitive to, even imperceptive of, the needs of their infants (Ainsworth, 1963). Non-attached<sup>3</sup> infants displayed no differential behaviour toward the mother, and were often left unattended for long periods by unresponsive mothers (Ainsworth, 1963). These findings led Ainsworth to conclude that the basis of attachment bonds between an infant and his or her mother is dependent on the sensitive and responsive nature of the interactions that occur in early infancy (Ainsworth, 1963; Bretherton, 1992).

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<sup>2</sup> Ainsworth used the term 'insecure' to describe what was later termed 'anxious-ambivalent' by Ainsworth et al. (1978).

<sup>3</sup> Ainsworth used the term 'non-attached' to describe what was later termed 'anxious-avoidant' by Ainsworth et al. (1978).

Although it may be argued that the findings of Ainsworth's (1963) observations of the Ganda people are limited to non-Westernised or non-industrial society, further observational studies of families in Baltimore in the USA (Ainsworth, 1967) provide evidence that this is not the case. Ainsworth (1967) observed mother-infant interactions from birth to one year of age, and again showed that the sensitivity of the mother to the needs of her infant during the early months of development played a significant role in the development of the infant-mother bond. Mothers who were sensitive and responsive to the needs of their infant had infants who cried less, and who used facial expressions and vocal interactions to communicate (Bell & Ainsworth, 1972). In contrast, mothers who were less sensitive and/or responsive to their infant's needs had infants who were more fretful and made less attempts to communicate (Bell & Ainsworth, 1972).

Similar findings emerged in a series of structured observations in a laboratory (known as the Strange Situation) in which brief episodes of separation followed by episodes of reunion occur between a one-year-old infant and his or her mother (Ainsworth, 1967). Mothers who were more sensitive had infants who were content to explore their new surroundings, whereas mothers who were less sensitive had infants who were insecure and reluctant to explore. Interestingly, Ainsworth (1967) noted that the reunion episodes showed the greatest distinction in insecure infant behaviours. Secure infants sought proximity to their mother and were easily comforted, and after a short cuddle were happy to explore the environment once again. However, for insecure infants, one of two patterns of behaviour emerged; either the infant would react with proximity-seeking towards his or her mother which was then closely followed by kicking or ambivalence, or the infant would avoid or ignore his or her mother (Ainsworth, 1967). As

this latter finding was unexpected, Ainsworth concluded that maternal sensitivity to the needs of an infant is not only highly influential in the development of an infant-mother bond, but is also influential in the development of individual differences in attachment behaviours.

Ainsworth et al. (1978) used the Strange Situation in a series of laboratory-based observations of individual differences in attachment-related behaviour. Over eight episodes of separation and reunion researchers observed and recorded the behaviour of infants, and the behaviours of the mothers towards their infant. The criterion for assessing the organisation of attachment behaviour (proximity-seeking) was the use of the mother as a 'secure base' from which to explore the novel environment.

Ainsworth et al. (1978) confirmed Ainsworth's (1967) finding that three distinct patterns of attachment-related behaviour (termed by Ainsworth as patterns 'B', 'A', and 'C') occurred. A type 'B' pattern (labelled as *secure*) is characterised by behaviours showing active exploration of the environment (play) and proximity-seeking when distressed by separation episode, although easily comforted on reunion. In contrast, a type 'A' pattern (labelled as *anxious avoidant*) is characterised by behaviours showing a *lack* of proximity-seeking on reunion with mother after an episode of separation. Indeed, Ainsworth found that many type A infants used avoidance-strategies such as ignoring attempts to gain their attention, or crawling away when approached by their mother (Ainsworth et al., 1978). The third type of pattern, type 'C' (labelled as *anxious resistant*), is characterised by behaviours which oscillate between proximity-seeking and contact-resistance when proximity is gained after a separation episode.

Indeed, patterns of attachment-related behaviour are shown to be contingent on an infant's early experiences with his or her mother (Ainsworth, 1979; Ainsworth et al., 1978; Crittendon, 1992). Secure infants experience prompt, sensitive, and appropriate responding to signals of distress, and learn that comfort from negative affect will be provided when needed (Ainsworth, 1979; Crittendon, 1992). In a series of 'at home' observations over a period of six months Ainsworth and her colleagues identified that the aforementioned three attachment patterns are associated with the level of sensitivity and responsiveness by the primary caregiver towards the infant (Ainsworth et al., 1978).

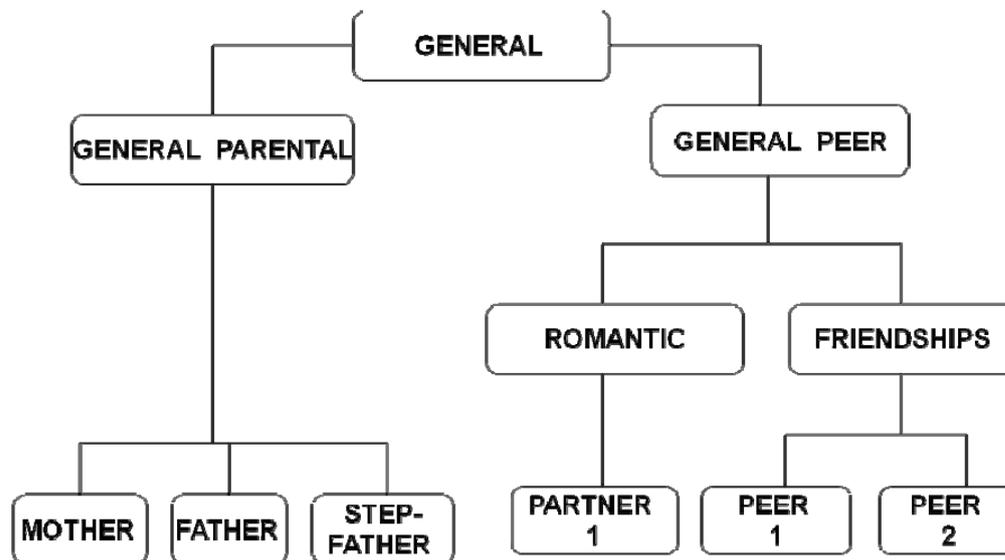
A secure attachment pattern indicates that an infant has experienced care giving that is consistently responsive and sensitive to their needs. Thus, secure infants learn that care giving will be provided when required, allowing the infant to focus on developing self-efficacy (Crittendon, 1992), emotional self-regulation skills (Crittendon, 1992), and other life tasks (Simpson & Belsky, 2008). Alternatively, an anxious-ambivalent style indicates that an infant has experienced intermittent and/or intrusive care giving that is excessively stimulating and oversensitive to their needs. Anxious-ambivalent infants are unable to regulate their negative affect (e.g., Ainsworth, 1979; Crittendon, 1992). Rather, their experiences lead to an escalation in distress, anger, and a requirement for comfort which they are unable to inhibit, leading to attachment-behaviours that use strategies to increase attention and care from their mother to try and gain relief (Crittendon, 1992). Finally, an avoidant style indicates that an infant has experienced care giving that is rejecting, unresponsive, and/or insensitive to their needs. Anxious-avoidant infants learn that expressing negative affect (e.g., crying) does not elicit responses that alleviate their distress (e.g., Ainsworth, 1979; Crittendon, 1992). Rather, their experiences lead to an

escalation of distress and attachment-behaviours that use inhibiting strategies are developed to avoid dependence on their mother for relief (Crittendon, 1992).

The three-category typology proposed by Ainsworth et al. (1978) was extended by Main and Solomon (1990) with the introduction of a fourth “disorganised/disoriented” attachment pattern. This style is characterised by inconsistent or contradictory behavioural responses from the infant (i.e., approaching with head averted, fearful facial expressions and oblique approach) toward the carer. Importantly, it is the contradictory nature of such responses in the Strange Situation by the infant on reunion with the carer that identifies them as disorganised/disorientated (Main & Solomon, 1990). The reasoning behind the acquisition of such attachment behaviour is based on parental maltreatment, such as abusive or fearful parent-infant relationships (e.g., Cicchetti, Rogosch, & Toth, 2006; George & Main, 1979).

Importantly, variations in attachment-related behavioural strategies (or attachment patterns) have been shown (e.g., Bartholomew & Horowitz, 1991; Hazan & Shaver, 1987; Main, Kaplan, & Cassidy, 1985) to be reflected in internally represented cognitions of self (how worthy one is of love and attention from significant others) and other (how available and sensitive significant others are to one’s needs). These internalised cognitions, known as *working models* (Bowlby, 1997), are argued to automatically or unconsciously guide one’s expectations of interpersonal relationships throughout the lifespan (e.g., Collins, Guichard, Ford, & Feeney, 2004; Collins & Read, 1994). Collins and Read (1994) argue that internal working models are hierarchical in nature (see Figure 1), with a generalised model at the top of the hierarchy which applies to a wide range of relationships with others, an intermediate level below, which contains models relating to

domains of relationships (e.g., parents, peers) and at the lowest level, models relating to specific relationships (e.g., spouse).



*Figure 1.* Hierarchical structure of working models (Collins & Read, 1994)

Collins et al. (2004) further posited that internal working models, although differing across attachment patterns, are comprised of four independent parts: (i) memories of attachment-related experiences; (ii) beliefs, attitudes, and expectations of self and others in relation to attachment; (iii) attachment-related goals and needs; (iv) and strategies and plans for achieving these goals. Consequently, an individual's attachment history provides the basis for internalised representations of self and other, which in turn are reflected in specific behavioural responses that serve to achieve his or her attachment-related goals and need. In sum, individual differences in working models drive individual differences in attachment-related behaviour.

### **1.2.3. Attachment Processes: Individual Differences in Attachment-Related Behaviours**

Clearly, attachment theory highlights the fundamental human compulsion to form and maintain physical and emotional proximity to specific others in times of need throughout the lifespan. However, although this theory is based on such a premise, Bowlby (1998) acknowledges that there are individual differences in both the requirement and desire for such emotional or physical closeness with others, even when those ‘others’ are those from whom one would traditionally expect to gain support, such as close family members or romantic partners (Bowlby, 1988).

Individual differences in the processes of attachment-related behaviours (proximity-seeking and exploration) have been one of the main foci of attachment researchers since the mid-1970’s (e.g., Ainsworth et al., 1978; Main & Solomon, 1990; Marvin & Britner, 2008; Sroufe & Waters, 1977). This research focus has increased our understanding of variations in the expression and frequency of attachment-related behaviours, and the importance of early interactions between infant and primary caregiver has been identified.

Indeed, as highlighted by both Ainsworth (1972) and Sroufe and Waters (1977) it is not the degree to which attachment-related behaviours are expressed that contributes to individual differences in attachment, rather, it is the organisation of such behaviours in times of threat. Thus, the responses of a primary caregiver to the attachment-related behaviours expressed by an infant in times of perceived threat, and variations in such responses, are critical in the development of patterns of exploratory and proximity-seeking behaviours. Moreover, an infant’s history of attachment-related interactions with

the primary caregiver creates a semantic network (internal working model) of the relationship that they have with their primary caregiver, which acts as a prototype on which all future relationship expectations are based (Hazan & Shaver, 1987). Variations of repeated experiences within attachment-related interactions result in variations in relationship expectations, and expression of attachment-related behaviours in important attachment relationships.

Research has consistently demonstrated that attachment-related characteristics are reflective of two broad categories, 'secure' and 'insecure' (e.g., Ainsworth, 1972; Bowlby, 1988; Weinfield et al., 2008). Individuals who experience consistent and sensitive responsiveness from their primary caregiver in infancy, and who are successful in proximity-seeking attempts in times of threat or anxiety, are considered to be securely attached. That is, they are confident that their primary caregiver will act as a secure base from which exploration is possible, leading to feelings of comfort with emotional and physical closeness with others (Fraley & Shaver, 2000). A secure individual is characterised as an individual who willingly explores their environment as a means of gaining mastery over it, and who is comfortable in turning to attachment figures in times of anxiety or perceived threat (Ainsworth, 1972; Bowlby, 1988).

Conversely, individuals who experience inconsistent and/or insensitive responsiveness from their primary caregiver in infancy, and who are un- or partially successful in proximity-seeking attempts in times of threat or anxiety are considered to be insecurely attached (Ainsworth, 1972; Bowlby, 1988). An insecure individual can be characterised in terms of two dimensions which are associated with inconsistent or rejecting early experiences with a caregiver. (1) Attachment *anxiety* is associated with

unpredictable attention from a caregiver, resulting in a reluctance to explore the environment, and frequent proximity-seeking to the attachment figure even when no threat is perceived. (2) Attachment *avoidance* is associated with indifferent or neglectful attention from a caregiver, resulting in high autonomy and exploration of the environment, but discomfort and/or reluctance to seek proximity to attachment figures, even in times of anxiety or perceived threat (Ainsworth, 1972; Bowlby, 1988).

Insecure attachment is associated with two distinct attachment-related behavioural strategies, each reflective of tactics to compensate for the lack of attachment-related security (Mikulincer & Shaver, 2005). Attachment anxiety is associated with hyperactivation of the attachment system (Mikulincer, Shaver, & Pereg, 2003), resulting in heightened attachment-related behaviour. Behaviours such as clinginess, or perpetual attention seeking compensates for the lack of confidence, as the individual attempts to make his or her world more stable, consistent and secure (Fraley & Shaver, 2000). Alternatively, attachment avoidance is associated with deactivation of the attachment system (Mikulincer et al., 2003); that is, in order to compensate for feelings of threat, abandonment or anxiety, an avoidant-attached person will actively evade emotional closeness with others, even to the point of aloofness (Fraley & Shaver, 2000). At this point it may be fair to assume that, as with other associatively learned patterns of responses (i.e., classical conditioning of phobias) that once acquired, attachment patterns become habitual thus remain consistent across the lifespan.

#### **1.2.4. Attachment Processes: Stability and Change**

Bowlby (1998) hypothesized that because attachment models are internalised representations of relationship experiences and expectations; they guide attachment-

related behaviour with all people throughout life, and provide a degree of buffering against unsupportive or disappointing relationship experiences, becoming increasingly stable across the lifespan. Notwithstanding, Bowlby (1998) also recognised that attachment-related experiences (i.e., repeated separation, loss of an attachment figure, life stress, etc.) during a person's lifetime may also influence an individual's models.

Research (Main et al., 1985) demonstrates that mental representations of attachment relationships are consistent through childhood, transforming from a holistic generalisation into stable representations of 'self' and 'other'. Indeed, Main et al. (1985) established that attachment behaviours found in early infant-parent interactions (via the Strange Situation task), when compared with representational speech and behaviours five years later, are concordant. For example, six-year olds classified as secure at 12 months (via the Strange Situation task), when asked "What would a child do?" in response to a two-week separation from his or her parents (Main et al., 1985, p. 81), provided answers consistent with attachment security (i.e., persuading parents not to go away, expressing disappointment, anger, or distress, etc.). That is, secure children tended to respond to this question in ways reflective of active 'dealing' with the separation 'head on'. On the other hand, children classified as anxious-avoidant at 12-months of age tended to respond in ways reflective of detaching from the separation (i.e., make no response, be silent, saying "don't know"), and anxious-ambivalent children responded in ways reflective of fearfulness about the separation (i.e., running after parents) or ways indicative of making the parent(s) completely unavailable (i.e., shouting parents). These responses are argued to reflect internalised representations of self and other inasmuch as a child's response reflects the ability to see the parents as available and accessible, even though absent

during the task. A secure child will respond in ways which reflects a history of parental availability and accessibility, expressing his or her own feelings about the proposed separation. An insecure child will respond in ways reflective of a lack of, inconsistent, or over-involved history of parental availability and accessibility. An anxious-avoidant child will fail to provide suggestions about how the 'other' child will cope with the separation as a means of avoiding confronting his or her own anxieties relating to separation. Alternatively, an anxious-ambivalent child will provide suggestions that express self-oriented feelings (i.e., relating to their own anxiety in a situation of separation).

Extending the hypothesis that attachment patterns are consistent over time, Hazan and Shaver (1987) examined whether an individual's attachment history would also predict his or her romantic attachment style. Hazan and Shaver demonstrated that a person's working models of self and relationships (others) are related to their individual attachment style. Secure individuals described themselves as "easy to get to know and as liked by most people and endorsed the claim that other people are generally well-intentioned and good-hearted" (p. 518). Alternatively, anxious-ambivalent individuals described themselves "as having more self-doubts, being misunderstood and underappreciated, and finding others less willing and able than they are to commit themselves to a relationship" (p. 518). Avoidant individuals tended to make responses that fell between those of the secure and anxious-ambivalent people. Thus, an individual's attachment history is meaningfully related to working models of self and other that remain consistent throughout childhood and adult relationships.

Research investigating the stability of attachment from infancy into adulthood demonstrates divergent findings. Some writers (e.g., Hazan & Shaver, 1987; Sroufe,

Egeland, & Kreutzer, 1990) uphold the principle that internal models acquired in infancy continue to influence behaviour, thought, and feelings in adulthood. This proposition is supported by longitudinal evidence (e.g., Hamilton, 2000; Iwaniec & Sneddon, 2001; Waters, Merrick, Treboux, Crowell, & Albersheim, 2000) revealing that 61-78% of attachment patterns assessed in infancy (via the Strange Situation) remain the same when assessed in adulthood (via the adult attachment interview, George, Kaplan, & Main, 1985). Notwithstanding, some researchers (e.g., Lewis, Feiring, & Rosenthal, 2000; Weinfield, Sroufe, & Egeland, 2000) demonstrate that infant and adult attachment patterns are the same in only 40% of participants, thus less than by chance. Although initially one could suggest a clear disparity in the results, closer examination of the research illustrates a common link explaining the divergence. Across all studies there is evidence that attachment security can be stable, but that change in security relates to meaningful change in family environment. For example, Waters et al. (2000) and Hamilton (2000) determined that the majority of their participants' attachment patterns remained stable from infancy into adulthood. However, both studies also illustrated that the occurrence of negative life events (i.e., loss of parent, parental divorce, life threatening illnesses of parent or child, parental psychiatric disorder, and physical or sexual abuse by a family member) was associated with either the maintenance of established patterns of attachment insecurity, or a change from secure to insecure patterns. In contrast, Weinfield et al. (2000) demonstrated that in a sample of high risk individuals (whose experiences of negative life events were frequent and/or severe) the majority outcome was attachment pattern change. However, change was associated with specific factors, such as the onset of maternal depression which negatively relates to the

mothers ability to provide sensitive and responsive care giving (Weinfield et al., 2000). In sum, it is clear that as Bowlby (1998) postulated, attachment is a dynamic process that although in the main stable, is open to change when life experiences challenge the beliefs and expectations of significant others and relationships.

More recently Fraley (2002) proposed that “at least two perspectives on attachment stability have evolved in the literature” (p. 124, italics added). Fraley identifies these as the ‘revisionist’ and the ‘prototype’ perspectives. The revisionist perspective posits that attachment patterns are constantly modified by ongoing experience, therefore attachment pattern stability would be unlikely to be found. The second perspective speculates that attachment patterns are more malleable, adapting to new experiences, whilst the attachment pattern formed in infancy remains stable across the lifespan. Fraley (2002) states “As such, these prototypes can contribute a constant source of variability to attachment dynamics over the life span, increasing the likelihood that attachment patterns in adulthood will reflect those observed in childhood” (p. 124). Thus, attachment-related behaviours, learned in early life are not limited to initial attachment relationships with primary caregivers, but remain relatively consistent throughout the lifespan (e.g., Hamilton, 2000; Hazan & Shaver, 1987; Iwaniec & Sneddon, 2001). Indeed, the repeated operation of the attachment-behavioural system in relational situations leads to a specific pattern of responses that are tailored to specific relationship partners (Fraley, 2002), develop self-identity (Bowlby, 1997), and importantly these experiences guide an individual’s expectations when encountering novel situations and/or people (Mikulincer & Shaver, 2007). Therefore, the attachment history of an individual moulds predictable patterns of attachment-related behaviour

within a variety of relationships, and importantly such predictability has led attachment researchers to develop assessment measures that can classify attachment patterns throughout the lifespan.

### **1.2.5. Assessing Attachment Patterns**

**Infancy and childhood.** Infant attachment behaviours are easily observable in naturalistic and laboratory situations because attachment behaviour is readily provoked in infancy and it is expressed through action rather than language (Ainsworth et al., 1978; Waters & Deane, 1985). Although Ainsworth et al.'s (1978) original Strange Situation procedure is still commonly used to assess attachment patterns in infancy, researchers have developed many methods to assess attachment patterns throughout childhood (see Kerns, Schlegelmich, Morgan, & Abraham, 2005 for a review).

**Adulthood.** A key issue in assessing adult attachment patterns is how researchers can identify and operationalise secure-base behaviour in adult, reciprocal relationships. Researchers have addressed this issue by developing ideas from attachment theory (i.e., internal working models) to create assessments such as interviews and self-report measures, which use language and perceptions rather than observations of attachment-related behaviours (Hazan & Shaver, 1990).

**Interview measures of adult attachment.** George et al. (1985) devised the Adult Attachment Interview (AAI) which classifies attachment pattern to the primary caregiver based on recollections of parental responsiveness and sensitivity, and the individual's ability to reflect on the impact experiences on his or her personality and behaviour. The four AAI classifications are: (i) secure-autonomous, characterised by open and vivid dialogue involving coherent and autonomous descriptions of attachment-related

experiences, with no contradiction in semantic and episodic recall of childhood attachment relationships. When reflecting on the impact of attachment-related experiences will openly discuss and evaluate both positive and negative events; (ii) Dismissing, characterised by restricted and incoherent dialogue involving contradictions in semantic and episodic recall of childhood attachment relationships. When reflecting on the impact of attachment-related experiences will deny or conceal negative experiences, but will provide unnecessary descriptions of autonomy; (iii) Preoccupied, characterised by incomplete and incoherent dialogue involving repeated confusion in presenting past and present attachment-related experiences. Reflection on the impact of attachment-related experiences is lacking, and diffuse self-concepts are expressed; (iv) Unresolved/disorganised, is only classified in relation to discourse involving loss or traumatic childhood events (i.e., loss of attachment figure, physical or sexual abuse) and is characterised by repeated lapses in reasoning and lack of coherence. Reflection is absent and results in either silence/trance-like dissociation or eulogistic speech.

**Self-report measures of adult attachment.** Using Ainsworth et al.'s (1978) original tripartite taxonomy, Hazan and Shaver (1987) developed a self-report measure of individual attachment patterns in adult romantic relationships. This measure involves three separate multi-sentence statements that describe each of the three attachment patterns: (1) Secure: "I find it relatively easy to get close to others and am comfortable depending on them. I don't often worry about being abandoned or about someone getting too close to me." (2) Avoidant: "I am somewhat uncomfortable being close to others; I find it difficult to trust them completely, difficult to allow myself to depend on them. I am nervous when anyone gets too close, and often, love partners want me to be more

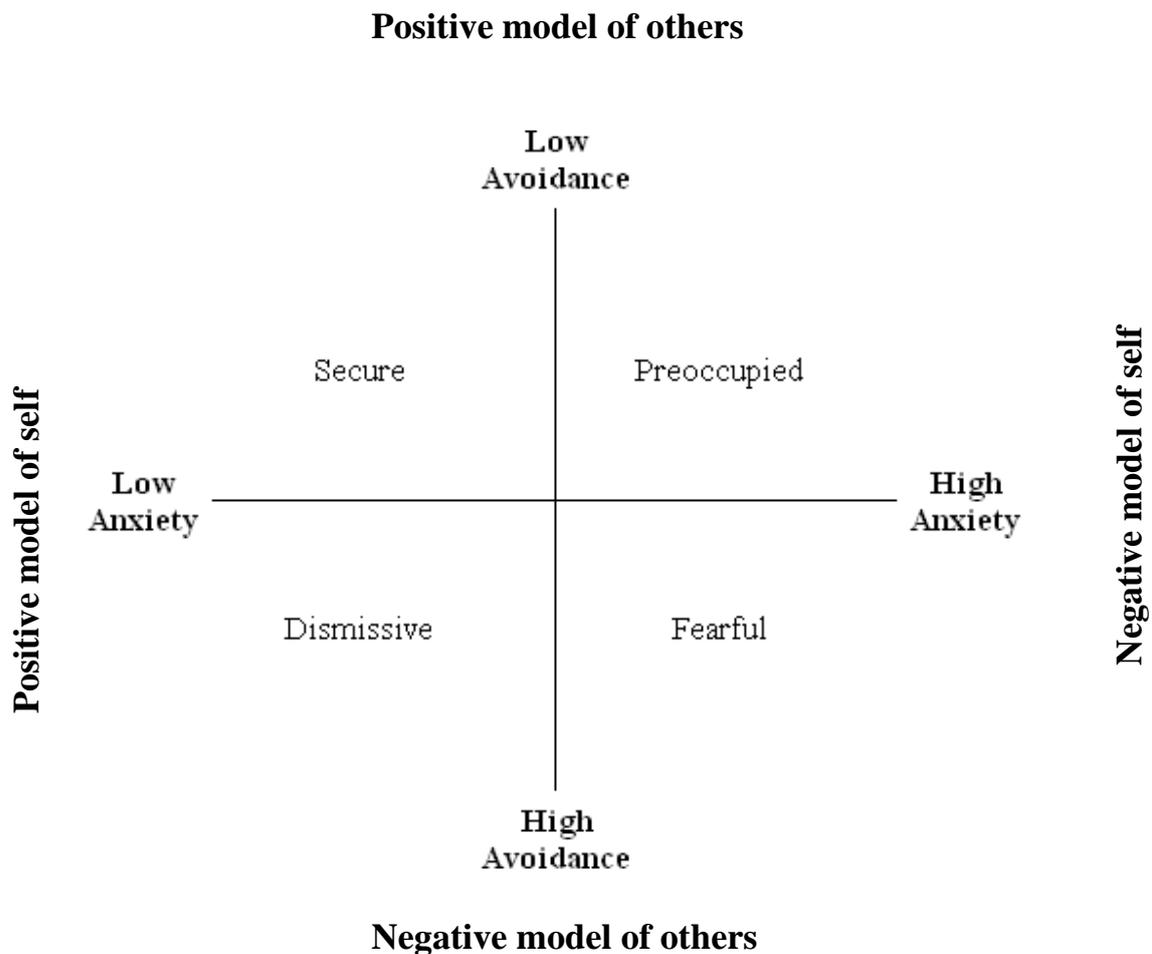
intimate than I feel comfortable being.” (3) Anxious/Ambivalent: “I find that others are reluctant to get as close as I would like. I often worry that my partner doesn’t really love me or won’t want to stay with me. I want to get very close to my partner, and this sometimes scares people away.” Attachment pattern is determined by which of the statements participants identify as self-descriptive.

Hazan and Shaver’s measure of adult romantic attachment patterns provided a major tool by which attachment in infancy could be linked to attachment in adulthood. Subsequently, attachment researchers (e.g., Bartholomew, 1990; Bartholomew & Horowitz, 1991; Brennan, Clark, & Shaver, 1998; Brennan & Shaver, 1995; Griffin & Bartholomew, 1994a, 1994b) developed a variety of categorical and continuous measures of attachment patterns revealing two major dimensions underlying self-report measures of attachment: Anxiety (about abandonment, separation, or insufficient love) and avoidance (of intimacy, interdependence, and emotional openness).

Bartholomew (1990) interpreted the dimensions of anxiety and avoidance in terms of Bowlby’s (1977) conceptualisation of internal working models of *self* and *other*. The dimension of anxiety maps onto one’s model of self (positive vs. negative) and the dimension of avoidance maps onto one’s model of others (positive vs. negative). Furthermore, she identified that combinations of the two dimensions could be argued to produce four, rather than three, prototypes of attachment patterns, albeit within a two-dimensional space (see Figure 2).

People with positive models of self and others are defined as *secure*, and are characterised by a positive sense of self-worth and a belief that others are trustworthy and

available in times of need, secure attached people have a positive attitude toward close relationships. People with a negative model of self and a positive model of others are defined as *preoccupied*, and are characterised by a negative sense of self-worth but a positive evaluation of others, this leads to the individual striving for the positive appraisal of important others as a means of increasing their self-esteem.



*Figure 2*

Orthogonal dimensions of attachment variations (adapted from Brennan, Clark, & Shaver, 1998)

Those with a positive model of self and a negative model of others are defined as *dismissing*, and are characterised by a positive sense of self-worth but do not believe that others will be there for them in times of need, this leads to an avoidance of close relationships as a means of protecting themselves against disappointment. People with negative models of self and others are defined as *fearful* and are characterised by a negative sense of self-worth and the belief that others are untrustworthy or uncaring, this leads to the avoidance of close relationships as a means of protecting themselves against anticipated rejection.

Based on Bartholomew's (1990) proposition that adult attachment could be viewed as a combination of internal models (self and other) and the dimensions of attachment anxiety and avoidance, Bartholomew and Horowitz developed the Relationship Questionnaire (RQ). Similarly to Hazan and Shaver's measure, the RQ uses brief multi-sentence descriptions of four prototypical attachment patterns: (1) Secure: "It is easy for me to become emotionally close to others. I am comfortable depending on them and having them depend on me. I don't worry about being alone or having others not accept me." (2) Fearful: "I am uncomfortable getting close to others. I want emotionally close relationships, but I find it difficult to trust others completely, or to depend on them. I worry that I will be hurt if I allow myself to become too close to others." (3) Preoccupied: "I want to be completely emotionally intimate with others, but I often find that others are reluctant to get as close as I would like. I am uncomfortable being without close relationships, but I sometimes worry that others don't value me as much as I value them." (4) Dismissing: "I am comfortable without close relationships. It

is very important to me to feel independent and self-sufficient, and I prefer not to depend on others or have others depend on me.” As with Hazan and Shaver’s measure, attachment pattern is determined by which of the statements participants identify as self-descriptive.

Although the use of discrete attachment patterns still occurs (e.g., Berman, Weems, Rodriguez, & Zamora, 2006), categorisation fails to consider the individual differences of people within each category, or even that variations exist (Fraley & Waller, 1998). Baldwin, Keelan, Fehr, Enns, and Koh-Rangarajoo (1996) show that a relationship-specific attachment pattern (i.e., particular to a single relationship), does not inevitably indicate that the same attachment pattern will be found in another, even when the relationship ‘type’ (i.e., romantic relationship) is the same. Consequently, current conceptualisations of attachment differences are based on the orthogonal dimensions of anxiety and avoidance (Brennan et al., 1998). It is the combinations of high-low scoring on each of these dimensions that determine the attachment-related pattern of behaviour and cognitions that are found between individuals, and map onto Bartholomew and Horowitz’s (1991) model. Secure attachment is associated with low anxiety and avoidance, preoccupied attachment is associated with high anxiety and low avoidance, dismissing attachment is associated with low anxiety and high avoidance, and fearful attachment is associated with high anxiety and avoidance.

Attachment theory is evidently a useful way of explaining the formation and maintenance of human relationships at an interpersonal level, and over the past decade has been hypothesized as a prominent theoretical basis from which intergroup relationships can be explored (Smith, Murphy, & Coats, 1999). Indeed, Smith et al.

identified that attachment to groups (i.e., fraternities/sororities, sports teams, etc.) could be meaningfully assessed using the dimensions of anxiety and avoidance. High (compared to low) attachment anxiety or avoidance (to one's own groups) predicted low group identification and low feelings of social support from other group members, indicating that at a group level insecure attachment is characterised by a negative model of others. Moreover, high attachment avoidance (to one's own groups) predicted a desire to exit the group(s), indicating that even at a group level the distancing strategies characteristic of attachment avoidance are apparent. Smith et al.'s proposition is supported by Rom and Mikulincer (2003), who demonstrate that romantic attachment patterns could be used to predict intragroup attitudes (Study 2). High (vs. low) romantic attachment anxiety predicted a greater desire for group acceptance, fewer pleasurable memories of intragroup interactions, and the ascription of negative attributes to the self as a group member. High (vs. low) romantic attachment avoidance predicted a greater desire for independence from the group, fewer pleasurable memories of intragroup interactions, and the ascription of negative attributes to other group members.

Given that negative experiences in early attachment relationships are shown to lead to negative expectations of others, it is fair to suggest that insecure people are unlikely to form adaptive intra- or intergroup relationships. Moreover, an insecure persons expectations that others are hostile, rejecting, or inconsistently caring would not elicit tolerance and acceptance of people culturally, ethnically, or physically different than oneself. Therefore, it is likely that variations in attachment pattern will lead to variations in prejudice and discrimination.

### 1.3. Theories of Prejudice and Research

When one is interacting with individuals from different social groups, automatic cognitive and social processes can bias interactions that in turn can maintain or even intensify pre-existing conflict (Sherman, Stroessner, Conrey, & Azam, 2005). The social phenomenon of prejudice is one way that biases', leading to negative outcomes, is apparent. Gordon Allport (1954/1979) convincingly argued that prejudice is a group process. Prejudice is expressed towards a whole group of people (e.g., Blacks, women, immigrants, Mexicans, etc.) rather than towards isolated individuals. Additionally, it is an orientation shared by social groups, that is, individuals who share a segment of society will broadly hold the same views and beliefs about, and behave in a similar way towards others who are not perceived as part of their group (Brown, 2006). Discrimination refers to any action that purposely "...limits or restricts access to privileges or resources" to specific group members (Stratton & Hayes, 1999).

The processes involved in prejudice are clear. However, definitions of prejudice have changed since Allport's (1954/1979) original concept of "...an antipathy based upon a faulty and inflexible generalization" (p. 9). Such changes include "an unjustified negative attitude toward an individual based solely on that individual's membership in a group" (Worchel, Cooper, & Goethals, 1988, p. 449), and more recently as "...the holding of derogatory social attitudes or cognitive beliefs, the expression of negative affect ...towards members of a group on account of their membership of that group" (Brown, 2006, p. 8). However, the underlying construct remains the same; prejudice involves negativity, in thought and/or action towards a specific group of people because of whom they are and the group to which they are perceived to belong.

Research consistently shows that prejudice tends to persist in society regardless of legislation designed to eliminate it (e.g., Akrami, Ekehammar, & Araya, 2000; Allport, 1954/1979; Hofstra et al., 2005). Although persistent, the expression and levels of prejudice differ substantially according to any number of psychological influences including self-esteem (e.g., Guvenc & Aktas, 2006; Lozano & Etxebarria, 2007; Verkuyten, 2007), pro-social orientation (Midlarsky, Jones & Corley, 2005), empathy (e.g., Brown, Bradley & Lang, 2006; Lozano & Etxebarria, 2007) and ingroup identification (e.g., Duckitt, Callaghan & Wagner, 2005; Vignoles & Moncaster, 2007). Furthermore, the rationales behind the function of prejudice also vary according to which theoretical basis one chooses to use. For example, social dominance theory (Sidanius & Pratto, 1999) proposes that prejudice functions to maintain the integrity of a hegemonic majority over minority groups. Whereas Social Identity Theory (Tajfel & Turner, 1986) conceptualises prejudice as a response aimed at increasing positive self- and group-esteem through the derogation of outgroups.

Notwithstanding, from an ethological point of view, prejudice is a functional mechanism that serves to protect the human species from extinction (e.g., Duckitt, 1992; Fox, 1992; Schaller, Park, & Faulkner, 2003). If, for example, our distant ancestors were unable to distinguish between groups of kinsmen, and groups of people who posed a danger to them, then humankind would have long ago ceased to exist. Thus, prejudice may be an adaptive response in interactive situations with novel people. However, contemporary societies are multicultural, multi-faith, and more of a global community and this function of prejudice is arguably maladaptive, especially given the increase in interracial and interfaith hate crimes (Home Office, 2007).

### 1.3.1. Social Categorisation Theory

Social Categorization Theory (SCT, Allport, 1954/1979) posits that due to the limited capacity of the human brain, people use organisational cognitive strategies to form impressions of both themselves and others (stereotypes), which in turn guide the beliefs and expectations of future interactions. Such strategies are undoubtedly useful when interaction with others is necessary, particularly when others are unknown to us. For example, when in an unfamiliar city it is useful to be able to identify particular categories of people (e.g., police, taxi drivers). However, a stereotype, frequently based only on a minimal amount of information such as a brief interaction, or even reports of interactions from significant others (parents, partner, peers, etc.) often lead to false judgments (Allport, 1954/1979). Moreover, stereotypes automatically elicit affective responses associated with characteristics that confirm the stereotype, and attention focuses on stereotype-confirming characteristics leading to misconceptions about the nature of others (Brown, 2006). As an example, Allport (1954/1979) illustrates how misconceptions occur in the perception-cognition process:

“At a session of summer school an irate lady of middle age approached the instructor saying, “I think there is a girl of Negro blood in this class”. To the instructor’s noncommittal reply, the lady persisted, “But you wouldn’t want a nigger in the class, would you?” Next day she returned and firmly insisted, “I know she’s a nigger because I dropped a piece of paper on the floor and said to her, “Pick that up”. She did so, and that proves she’s just a darky servant trying to get above her station” (p. 167).

Using this example, the woman (accuser) led only by the sensory information that the white skinned girl (accused) had dark hair (Allport, 1954/1979, p. 167) selected this

as a cue of being Negroid, experienced negative affect (disgust, anger, etc.) and accentuated this in her mind. The helpful act (picking up a fallen piece of paper) interpreted as evidence of Negroid subservient behaviour, supported the accuser's stereotype of Negroes. In turn, this led to open discrimination against the accused girl by demanding her removal from class. Thus, stereotype activation maintains negative attitudes, discrimination, and therefore the continuance of intergroup hostility (e.g., Gilbert & Hixon, 1991; Reicher, 1995).

As well as propose that categorization is the basis of prejudice, Allport hypothesized that *recategorising* others, by shifting focus from membership at a specific level (i.e., racial group) to membership at a more inclusive level (i.e., national identity, or human identity) would reduce prejudice. Moreover, Allport (1954/1979) proposed that structured, positive intergroup contact was one means by which recategorisation was more likely to occur. Allport's (1954/1979) *contact hypothesis* proposed a list of prerequisite conditions, including the necessity for social and institutional support for the promotion of frequent, close, and continued development of meaningful friendships between groups sharing equal social status.

In sum, SCT explains how cognitive strategies aimed to compensate for limited neural capacity lead to the formation of prejudice, and even extends to identify how recategorisation can lead to reduced prejudice. Notwithstanding, SCT is unable to answer why only *some* people are prejudiced whilst others are not. If social categorization involves the automatic activation of stereotypes typically based on limited or false information, do people who are not prejudiced have 'better' or more accurate information within their stereotypes of categories of people? Furthermore, the automatic activation of

a stereotype towards a category of people must occur due to some physical attribute that makes a person stand out from the rest. However, is this automatic activation merely based on that person looking different, or does a range of differences need to be apparent? Tajfel and Turner's (1986) Social Identity Theory neatly explores this latter question.

### **1.3.2. Social Identity Theory**

Social Identity Theory (SIT, Tajfel & Turner, 1986) extends Allport's (1954/1979) SCT, maintaining that individuals are driven to psychologically categorise themselves and others into social groups. However, SIT may explain prejudice from both an individual and a group level, using two main assumptions; firstly that social identity is derived from membership in various groups, and secondly that the motivation to achieve and maintain a positive social identity boosts self-esteem (Tajfel & Turner, 1986). This second assumption explains the group-serving biases often found in discrimination studies such as those of Bourhis and Gagnon (2001), who find that in the minimal laboratory context, whereby group members make decisions about the distribution of valued resources such as money or points to anonymous ingroup and outgroup individuals, discrimination and identity are strongly connected. This suggests that individuals favour other members of their own groups (ingroups), at the expense of individuals who they perceive as being members of groups that they do not have any subjective claim to (outgroups).

Given the assumptions of SIT it is possible to argue that the mere ascription to a particular group by others is sufficient to activate negative stereotypes, and elicit negative affect and prejudice towards an individual. This phenomenon is clearly illustrated in

Tajfel, Flament, Bundy and Flament's (1971) laboratory-based minimal group study. Participants were 14-year old male classmates from a school local to the researchers' university. After taking part in a pre-test task requiring estimation of the number of visual stimuli on a computer screen, participants were placed in one of two groups (supposedly based on their performance in the pre-test) but were unaware of which group their classmates were allocated to. One group of boys were told that they were 'over-estimators', the other 'under-estimators'. Following group allocation, each boy allocated money to anonymous members of each group (over-estimators or under-estimators). Demonstrating clear ingroup favouritism and outgroup discrimination, boys allocated more money to their own group at the expense of the monetary gain of the other group. Tajfel and his colleagues concluded that identification with a group, even if that group is meaningless, is sufficient to lay the foundations for prejudice to occur. Importantly, the boys who participated in this research were all very familiar with each other prior to the experiment. Therefore it is possible to argue that prejudice and discrimination based simply on perceived group membership occurs, even when a person is familiar with the outgroup member prior to their group ascription.

This theoretical explanation for prejudice has some chilling repercussions, but may help explain how prejudice in times of conflict such as war, can occur. For example, SIT theorists (e.g., Billig, 1976; Tajfel, 1981) posit that the collective frustrations held by (majority) ingroups regarding the social impact of (minority) outgroups (i.e., economic collapse, social disorder) lead to organised scapegoating; a concept proposed by Allport (1954/1979) to be necessary for individuals to uphold the dehumanization of outgroup members and express the most extreme forms of prejudice (i.e., genocide). Scapegoating

refers to "...an extreme form of prejudice in which an outgroup is unfairly blamed for having intentionally caused an in-groups' misfortunes" (Glick, 2006, p. 244). However, in contrast to Allport's (1954/1979) view that scapegoating promoted prejudice at an individual level, Tajfel (1981) upheld that scapegoating was a group-based process. Tajfel (1981) hypothesized that socially shared, or consensual prejudice toward outgroups, results from a shared ingroup belief that those outgroups are responsible for ingroup experiences of social hardship (i.e., immigrants cause lack of employment opportunities).

Although SIT is a useful basis to explain prejudice at both interpersonal and intergroup levels, it may oversimplify processes involved in prejudice. Given that SIT posits that intergroup evaluations and decisions are motivated by concerns about social identity (i.e., enhancing self- and ingroup-esteem), there should be a positive relation between ingroup identification and ingroup bias. However, a meta-analysis of 14 SIT studies (e.g., Hinkle & Brown, 1990) demonstrates that the correlation between the strength of an individual's ingroup identification and level of ingroup bias does not only vary, but that the variance ranges from significantly negative to weakly positive correlations. More importantly, ingroup bias only reflects positive evaluation or treatment of the ingroup compared to the outgroup; thus at best can only be described as a measure of relative favouritism rather than reflective of prejudice per se. Indeed, research (Turner, 1981) demonstrates that ingroup bias does not correlate with affective measures of outgroup liking or disliking. Consequently, SIT does not explain the expression of negative affect defined as requisite for prejudice. Notwithstanding, SIT does identify how an individual's personal ties to their ingroups as a source of esteem may lead to the

sharing of negative stereotypes. In turn, shared negative stereotypes may facilitate a predisposition to uphold prejudice toward an outgroup who has historically led to ingroup misfortune. However, using SIT to explain prejudice requires convoluted supposition, and other theories provide links that are more direct. One theory that directly links to prejudice is Social Dominance Theory (Sidanius & Pratto, 1999).

### **1.3.3. Social Dominance Theory**

Social Dominance Theory (SDT, Sidanius & Pratto, 1999) integrates a number of classical and contemporary theories of social attitudes and intergroup relations as a means of establishing a single coherent theoretical explanation for prejudice. SDT posits that all human societies use stratification based on membership of socially constructed groups (e.g., sex, ethnicity, nationality, religiosity, and so forth) with dominant and hegemonic groups at the top and subordinate groups at the bottom. Moreover, dominant groups receive a disproportionate share of benefits and resources compared to subordinate groups. According to SDT, there are three basic systems of social stratification: (i) gender, (ii) age, and (iii) “arbitrary set” (e.g., race, caste, ethnicity, class, etc.), and its theoretical predictions start with the assumption that the three systems are relatively stable and fixed. Moreover, SDT suggests that within these systems, there are groups and institutions that promote cognitions either reinforcing, or to the contrary, attenuating group inequality (Van Laar & Sidanius, 2001). These cognitions or ideologies are called “legitimizing myths” and a basic distinction is made between hierarchy-enhancing (H-E) legitimizing myths whose main function is to legitimize group inequality (e.g., racism, sexism, conservatism) and hierarchy attenuating (H-A) legitimizing myths and

institutions seeking to legitimize group equality (e.g., socialism, feminism, universal rights of man).

Sidanius and Pratto (1999) posit that three processes drive SDT: (1) aggregated individual discrimination, referring to individual acts of discrimination by one person against another; (2) aggregated institutional discrimination, referring to public or private institutional discrimination (overt or covert) identified by whether institutional decisions result in the disproportionate allocation of positive and negative social value across social status hierarchies; and (3) behavioural asymmetry, referring to how the behavioural repertoires of individuals in different strata reflect their social groups position in the social hierarchy.

In relation to prejudice, unlike most theories of intergroup relations, SDT sees prejudice as more functional than irrational (Sidanius, 1993). It makes sense for men and members of other dominant groups to favour inequality more than women and members of subordinate groups because they derive material advantage from society for holding such attitudes and ideologies. SDT neatly uses the social phenomenon of oppression of dominant groups over subordinate groups to explain how prejudice occurs, and importantly, prejudice maintenance at a societal level. Aggregated institutional discrimination includes mechanisms aimed to oppress subordinate groups via systematic terror (use of violence or threats of violence against subordinates) at one of three levels (Sidanius & Pratto, 1999): (i) Official terror involving public and legally sanctioned violence/threats of violence against subordinates (e.g., apartheid in South Africa); (ii) Semi-official terror involving private or covert violence or intimidation directed against subordinates, carried out by officials of the state (i.e., security forces); (iii) Unofficial

terror involving violence/threats of violence by private individuals from dominant groups against subordinate groups, which although not officially sanctioned often involve approval from members of the security forces (e.g., lynching by the Ku Klux Klan). Oppression, in the form of prejudice (e.g., racism, sexism, ethnocentrism, etc.) functions to establish and maintain group-based hierarchy, and in turn ensures that the hegemonic group remains on the top stratum.

Pratto, Sidanius, Stallworth, and Malle (1994) developed a self-report scale of social dominance orientation (SDO), an individual differences construct which reflects the degree of approval towards hierarchical and dominance relationships between social groups, regardless of whether ones ingroup is dominant or not (Sidanius, Levin, Federico, & Pratto, 2001). That is, SDO measures how much an individual “desires and supports group-based hierarchy and the domination of ‘inferior’ groups by ‘superior’ groups” (Sidanius & Pratto, 1999, p. 48). Indeed, research (e.g., Esses, Jackson, & Armstrong, 1998; Heaven & St. Quentin, 2003; Pratto et al., 1994; Sidanius, Pratto, & Bobo, 1994; Whitley & Lee, 2000) has demonstrated that high (vs. low) SDO predicts high prejudice towards marginalised groups (e.g., Dambrun, 2007; Guimond, Dambrun, Michinov, & Duarte, 2003).

Although providing a clear explanation of how prejudice continues at a societal level, SDT does not appear to be a theory that generalises well to all social phenomena. For example, it SDT is homeostatic; all of its premises are geared towards the maintenance of a certain social order of inequality in society. However, what happens when the hierarchy in society changes? When social change leads to the reversal of status

allocated to dominant and subordinate groups? Does change in status predict SDO change according to a group's 'new' status in the social hierarchy?

Research (Huang & Liu, 2002) examined these questions after the re-organisation of Taiwanese society, whereby the subordinate political group (Democratic Progressive Party) replaced the dominant political group (the Kuomintang). In a cross-sectional sample of over 600 participants (young, old, men, women, from new subordinate and dominant political groups) little evidence was found to support SDT's assumption that the dominant group was more prejudiced and ideological than the subordinate group. Indeed, Huang and Li (2002) found no significant difference in SDO by gender or age; two of the three status groups identified by Sidanius and Pratto (1999) as basic systems of social stratification. However, although Huang and Li did find that SDO was significantly higher in the 'new' dominant group (Democratic Progressive Party) compared to the 'new' subordinate group (the Kuomintang), no relation emerged between SDO and ingroup identification. Huang and Li concluded that the results indicate that "...far from acting in a coherent way to support legitimizing myths (or ideologies), in Taiwanese society a person's orientation towards inequality (SDO) pulls them in a variety of directions, regardless of what group they belong to, dominant or subordinate" (p. 15).

As a group-based theory, the premises of SDT intuitively lead to the assumption that prejudice toward all groups lower in the social hierarchy is equal among all members of a group with higher status. However, research (e.g., Allport, 1954/1979; Brewer, 1999; Mummendey, et al., 1992; Tajfel, 1981) demonstrates that individuals do not always derogate marginalised or subordinate groups. Therefore, SDT is unable to explain individual differences in prejudice toward subordinate groups within social higher status

groups. Similarly, SDT does not explain why only some social groups suffer stigmatization and prejudice, and not others. Research (e.g., Allport, 1954/1979; Plous, 2003) reveals that certain social groups (Blacks, women, gays/lesbians/bisexuals, and immigrants) are 'traditional' targets of prejudice and more likely to experience prejudice than others. So why are some groups stigmatised and prejudiced against and not others? One theoretical explanation that does consider this is Realistic Conflict Theory (Sherif, Harvey, White, Hood, & Sherif 1961).

#### **1.3.4. Realistic Conflict Theory**

Realistic Conflict Theory (RCT, Sherif et al., 1961) proposes that competition over limited resources leads to conflict between groups, thus competition is a direct reason why discrimination and stereotypes can develop within a society. Sherif et al.'s (1961) research (known as the Robbers Cave experiments) provides compelling evidence for RCT. The long-term observational study of intergroup functioning by Sherif and his colleagues aimed to investigate intergroup relations in three stages. The first stage explored ingroup formation and identification using experimental production of ingroups by randomly allocating boys to one group (Rattlers) or another (Eagles). The second stage examined intergroup tension by bringing together the two experimentally formed groups (Rattlers and Eagles), and introduced frustration and competition for given goals (i.e., food, water). The final stage explored whether intergroup conflict is reduced by the introduction of intergroup contact and/or super ordinate goals (i.e., goals which can only be attained by intergroup cooperation), thus integrating hostile groups.

Sherif et al. (1961) observed predictable patterns of behaviour during each of the three stages. Ingroup formation and identification occurred when the two experimentally

formed groups were isolated for the first five days, and that a hierarchical structure with varying degrees of responsibility for decisions etc. emerged rapidly. On introduction to the 'other' group in a sporting competition for trophies, ingroup identification strengthened and explicit hostility and derogatory attitude towards the other group occurred (i.e., name calling, burning the outgroup flag). During the third stage, that of integrating the groups, intergroup contact did not decrease hostility between the groups. However, the introduction of super ordinate goals that relied on intergroup cooperation reduced tension and hostility between group members to the extent that group demarcation was no longer apparent.

It would appear then that RCT helps to explain not only how ingroups are formed and how ingroup identification can lead to explicit prejudice towards an outgroup, but also how the tensions associated with prejudice based on the potential for competition for limited resources can be reduced. Indeed, research has replicated Sherif et al.'s (1961) finding that high prejudice associates with high ingroup identification (e.g., Brewer, 2001) and that competition alone is sufficient to elicit prejudice, even toward uninvolved outgroups (e.g., Sassenberg, Moskowitz, Jacoby, & Hansen, 2007). Moreover, research (e.g., Paluck & Green, 2009) has supported Sherif et al.'s (1961) proposition that introducing super ordinate goals and intergroup cooperation reduces prejudice.

### **1.3.5. Summary of Theories of Prejudice**

Although only some of the many theoretical bases of prejudice research, the theories outlined above highlight how prejudice forms, how prejudice can be maintained throughout time, and how prejudice may be reduced given the right circumstances. Given the descriptions presented it is possible to assume that prejudice is a simple matter of

ingroup-outgroup conflicts which may be societally supported and thus maintained, and that the reduction of prejudice merely requires the presence of goals which conflicting groups need to cooperate to achieve. However, to make such an assumption would be erroneous.

Prejudice is a complex interpersonal and intergroup phenomenon, which due to its negative social connotations is difficult to tap into at an empirical level (Paluck & Green, 2009). For example, there is the issue of finding a societal group that is salient to the assessed population. Some people are more tolerant of physical, cultural, and/or religious differences than others are. Thus in the main, intolerance is assessed toward groups whom prejudice is socially acceptable (e.g., skinheads, the elderly or political parties), which may not be reflective of real world prejudices (Karpinski & Hilton 2001).

Additionally, there is the issue that many people do not like to express their prejudices and will go to great lengths to disguise their „real“ attitudes toward outgroups (e.g., Dovidio & Gaertner, 1998; Plant & Devine, 1998). Furthermore, Brewer (1999) identifies that negativity towards outgroups is not always present, even in highly prejudiced individuals when stating “much ingroup bias and intergroup discrimination is motivated by preferential treatment of ingroup members rather than direct hostility toward outgroup members” (p. 429). Although counterintuitive, this is a key point inasmuch as, if outgroup negativity is not essential for prejudice (and therefore discrimination) to exist it may help explain how, in a multicultural modern society, the phenomenon is still considered to be a social problem due to the covert or implicit way in which prejudice is expressed. The next section attempts to critically assess each of the

theories outlined above as a means of helping to explain how differences in the theoretical bases chosen by prejudice researchers, may lead to disparate conclusions.

### **1.3.6. Criticisms of Theories of Prejudice**

Certainly, SCT (Allport, 1954/1979) and SIT (Tajfel & Turner, 1986) appear to be commonsensical in the proposition that prejudice exists merely due to the activation of stereotypes (aimed to lighten the cognitive load) based on the allocation of peoples into specific social categories. Moreover, SIT, SDT (Sidanius & Pratto, 1999) and RCT (Sherif et al., 1961) appear reasonable in proposing that prejudice occurs due to the comparison and negative evaluations of peoples within social categories to which they do not belong (outgroups) as a means of reducing threat, and increasing ingroup status and sense of worth. However, what happens when a novel person who clearly differs from oneself on one social dimension (i.e., race, gender, age, etc.) is also similar to oneself on another social dimension (i.e., student, parent, blonde-haired person, etc.)?

Hewstone, Rubin, and Willis (2002) propose that in times such as these a phenomenon such as crossed-categorisation occurs. That is, people perceived as belonging to many different and/or overlapping social categories lead to perceived homogeneity. Crossed categorisation makes social categorisation more complex, and ingroup/outgroup distinctions are more difficult due to the similarity that occurs when a person is seen as simultaneously belonging to one's ingroup as well as belonging to one's outgroup(s). Given this, SCT, SIT, SDT, and/or RCT, only explain prejudice formation and even maintenance for some people, not universally.

For example, (ingroup/outgroup) friendships negate prejudice in some people (Levin, van Laar, & Sidanius, 2003; Paolini, Hewstone, Cairns, & Voci, 2004). This

occurs even when the outgroup member is from a historically marginalised group (i.e., Blacks; Mendoza-Denton & Page-Gould, 2008), or is even an unknown friend of an ingroup member but from a potentially threatening group (i.e., Muslims; Pettigrew, Christ, Wagner, & Jost, 2007). Given that Allport's (1954/1979) contact hypothesis suggests that intergroup contact results in reduced prejudice through the formation of friendships between groups, links to SCT (Allport, 1954/1979) and RCT (Sherif et al., 1961) emerge. Indeed, Sherif et al. (1961) demonstrated that increasing intergroup contact, and facilitating intergroup cooperation (to achieve shared super ordinate goals) resulted in increased intergroup friendships, and reduced prejudice in the majority of participants. However, although Sherif et al. (1961) found that approximately 7% of their participants chose friends from the outgroup prior to inducing cooperative intergroup contact, *all* participants were explicitly prejudiced toward the outgroup when the opportunity emerged.

One way of explaining why prejudice varies between people is to consider prejudice at an individual differences level. Research (e.g., Adorno, Frenkel-Brunswik, Levinson, & Sanford, 1950; Altermeyer, 1988; Ekehammar & Akrami, 2003) indicates that prejudice can be predicted by particular personality traits. For example, Adorno et al. (1950) proposed that harsh, punitive parenting leads to the development of an authoritarian personality type, characterised by a strict adherence to socially defined behaviours, rules, or laws. Moreover, Adorno et al. (1950) hypothesized that people with an authoritarian personality type were predisposed toward adopt societally acceptable prejudices prevalent in his or her society at a given time. Research (e.g., Altermeyer, 1981; Martin, 2001; Pettigrew, 1958), using both Adorno et al.'s (1950) original measure

of authoritarianism (F-Scale) and subsequent modifications (e.g., Right Wing Authoritarianism scale; Altermeyer, 1981) confirms that an authoritarianism is predictive of high prejudice toward specific groups (i.e., socially stigmatised groups). Thus, the evidence indicates that when considered at a group level, theoretical explanations are sufficient to explain prejudice formation and maintenance on a wider scale, but are insufficient to explain prejudice at an individual difference level.

Further exploration of psychological factors which can, and potentially do, influence such individual differences are needed in order to advance understanding of why some people are prejudiced and some people are not. As prejudice is based on the interplay between two (or more) groups of individuals, I propose that although not dismissing research considering prejudice at a societal level, psychological research at the individual level will encourage evolution in this domain of research. Given that attachment theory is a well-established explanation as to why individual differences occur in the human psyche; my research extends the prejudice literature using an attachment perspective.

#### **1.4. Attachment and Prejudice**

Theoretically, the link between attachment and prejudice emerges within the ontogeny of attachment theory itself. Bowlby (1997) specified that a core issue in attachment theory is the regulation of negative emotions provoked by situations or people perceived as threatening or dangerous. On perceiving threat, the primary attachment strategy (Main, 1990) is to seek proximity (actual or imagined) to the attachment figure; proximity, in turn, diminishes negative emotions by creating a sense of ‘felt security’ (Sroufe & Waters, 1977). Following felt security the attachment behavioral system

deactivates and the individual can engage in other behaviors such as exploration (Ainsworth et al., 1978; Green & Campbell, 2000). Secure individuals are typically high in social competence (Zimmerman, 2004), are open to experiences (Nofle & Shaver, 2006), and show favorable views toward humanity (humanity-esteem; Luke, Maio, & Carnelley, 2004), all of which may lead to less prejudiced behavior, and more engagement in sociable and meaningful relationships with outgroup members.

When an attachment figure is not available, secondary strategies of affect regulation ensue. If proximity-seeking is a viable option then the attachment system is hyperactivated leading to behaviors aimed at increasing proximity; this is the strategy associated with attachment anxiety. Those high in attachment anxiety are hypervigilant to threat; indeed, they have more aversive social and relationship goals (Carnelley & Story, 2008; Gable, 2006). In addition they have low humanity-esteem (Luke et al., 2004), and are more likely to make stereotype-based judgments (Mikulincer, 1997). Additionally, attachment anxiety is associated with concerns about ingroup acceptance (Mikulincer & Rom, 2003), and low perceived support from ingroup members (Smith et al., 1999); thus indicating that attachment anxiety may relate to prejudice as a means of increasing the opportunity to be accepted by ingroup members.

If proximity is not a viable option, the attachment system chronically deactivates. This is characteristic of those high in attachment avoidance, who increase distance from others and compulsively rely on the self. Avoidant attachment is associated with low appetitive relationship goals (Carnelley & Story, 2008), low approach motivation (Meyer, Olivier, & Roth, 2005), low agreeableness (Mikulincer & Shaver, 2007), more cognitive closure (Mikulincer & Arad, 1999), low humanity-esteem (Luke et al., 2004), and more

use of stereotype-based judgments (Mikulincer, 1997). Moreover, attachment avoidance is associated with an active evasion of dependence on a social group (Rom & Mikulincer, 2003), and negativity toward ingroup members (Smith et al., 1999); indicating that attachment avoidance may relate to high prejudice as a means of further distancing oneself from others.

Given the theoretical and empirical evidence that attachment patterns are predictive of prejudice, it is important to note that there are to date only a few studies which explore the relationship between individual variations in attachment pattern and prejudicial view towards *salient* outgroups (e.g., Hofstra et al., 2005; Mikulincer & Shaver, 2001; van Oudenhoven & Hofstra, 2006).

#### **1.4.1. Individual Differences in Attachment Pattern and Prejudice**

Recently, researchers (Hofstra et al., 2005; van Oudenhoven & Hofstra, 2006) have investigated majority members' views of the adaptation strategies (Berry, 1997) employed by immigrants to their country (the Netherlands) based on dispositional attachment pattern. The preferences for specific adaptation strategies are reflective of self and other motivations to approach or avoid mutual contact between immigrants and mainstream society members. The strategy of *assimilation* refers to the adoption of the host culture's norms and values at the expense of the original culture. Assimilation into the host culture may neutralise any distrust towards immigrants, whose values are unknown, thus reduce anxiety in fearfully attached individuals and increase the likelihood that contact will occur. The *separation* strategy refers to the exclusive identification with the original culture. Given the nature of the dismissing attached person who avoids interpersonal relationships, this type of strategy maintains cultural barriers that indicate a

rationale for non-contact with immigrants. *Marginalisation* refers to an adaptation strategy in which identification with neither culture occurs. As a preoccupied attached person fears rejection in social contact situations, this strategy provides the greatest opportunity for host society members to reduce the anxiety caused by potential for rejection from immigrant cultures. Finally, an *integration* strategy refers to the participation in a host culture whilst still maintaining original cultural norms and values. Given that a securely attached person is comfortable with approaching social situations cultural differences may be accepted, increasing social contact opportunities.

Hofstra et al. (2005) report that for all people, regardless of attachment pattern, integration was the most preferable adaptation technique when given the choice of integration, assimilation, marginalisation, or separation. However, distinct attachment pattern differences still emerged. Secure attachment associated with a preference for the integration of immigrants into the host culture, whereas fearful attachment associated with a negative attitude toward integration, preoccupied attachment associated with a preference for marginalisation, and dismissing attachment associated with a preference for immigrants to remain separate from the host culture. Regression analysis demonstrated that two attachment patterns significantly predicted affective responses to the adaptation strategies used by immigrants. Secure attachment significantly predicted positive views and increased trust toward immigrants irrespective of the adaptation strategy adopted. Alternatively, dismissing attachment significantly predicted negative views, increased distrust toward immigrants, and increased negativity toward the integration of immigrants.

Similar to Hofstra et al., van Oudenhoven and Hofstra (2006) examine the relation between dispositional attachment pattern and attitude toward the integration strategies adopted by immigrants. van Oudenhoven and Hofstra (2006) show that majority group members classified as secure-attached reported a positive attitude toward the integration of immigrants, whereas fearful and dismissing-attached majority group members reported a negative attitude toward integration, and preoccupied individuals report a negative attitude toward both assimilation and separation. The findings of Hofstra et al. (2005), van Oudenhoven, and Hofstra (2006) illustrate that an individual's dispositional attachment pattern is influential in how majority members view immigrants. Therefore, attachment theory can explain the formation and maintenance of prejudice.

Additional evidence that attachment theory explains prejudice emerges in research examining the role of primed attachment security (compared to a neutral prime) on prejudicial responding (Mikulincer & Shaver, 2001). Secure-base priming, frequently used in attachment research, involves subliminal or explicit exposure to attachment-related stimuli as a means of invoking secure attachment-related (conscious or unconscious) responses (e.g., Baldwin et al., 1996; Mikulincer & Shaver, 2001; Mikulincer & Shaver, 2005; Pierce & Lydon, 1998). The advantage of using priming in research investigating attachment patterns and prejudice is that one can make a causal attribution. That is, the manipulation of attachment pattern through priming allows observation of cause and effect relationships; a noted flaw in the correlation research often used in prejudice research (Stephan, Renfro, Esses, Stephan, & Martin, 2005).

Mikulincer and Shaver (2001) examined the role of primed attachment security in prejudice reduction. It was determined across a number of studies, that when an

attachment-related secure base is primed, negative evaluations of salient outgroup targets (Israeli Arabs, Russian immigrants, homosexuals) were significantly lower than in a neutral prime condition. Moreover, although secure base priming increased positive mood, mood did not mediate the relationship between secure-base prime and the reduction of negative evaluations. Conceptually, this indicates that the effect of primed security influenced the level of prejudice expressed.

Consequently, evidence from attachment research indicates that attachment pattern variations directly link to prejudice. However, to date no research examines why. What mechanism might explain this link? One mechanism identified as relating to attachment pattern variation (e.g., Batson, Chang, Orr, & Rowland, 2002) and prejudice (e.g., Esses & Dovidio, 2002), is empathy.

### **1.5. Empathy**

Empathy is a complex and multifaceted emotional reaction in response to the experiences of another (Davis, 1983; Lawrence, Shaw, Baker, Baron-Cohen, & David, 2004). Empathy, defined for the purposes of this thesis, is the spontaneous ability to take the perspective of, and understand the feelings of another person, and the ability to use emotional responses appropriate to his or her emotional state (Baron-Cohen & Wheelwright, 2004). To argue that empathy is related to sympathy (feelings of pity and sorrow for someone else's misfortune, Soans & Hawker, 2005), compassion (sympathetic pity and concern for the sufferings or misfortunes of others, Soans & Hawker, 2005) and altruism (unselfish concern for others, Soans & Hawker, 2005) appears on the surface to be commonsensical. However, compassion, sympathy, and altruism, although associated,

are often confused with empathy, which is evident in the many definitions within empathy literature.

On the one hand, cognition-based definitions of empathy involve perspective taking or understanding of others (Hogan, 1969). On the other hand, emotion-based definitions of empathy involve emotional arousal or sympathy in response to the feelings or experiences of others (Mehrabian & Epstein, 1972). Alternatively, multi-dimensional definitions of empathy combine both cognitive and emotional components (Davis, 1983). However, empathy is distinguishable from compassion or sympathy inasmuch as empathising involves *sharing* another person's feelings, whereas sympathizing or showing/feeling compassion does not (de Vignemont & Singer, 2006). To use a first person example, when I empathise with a person who is sad, I see sadness in them, I am able to take their perspective to understand why they feel sad, and feel sad myself. When I sympathise with or feel compassion for a sad person, I feel pity, love, or concern for the person but I am not sad myself. Therefore, empathy involves adopting the other's perspective and requires a sense of concern for their welfare (Batson et al., 2007).

In the main, it is accepted (e.g., Batson et al., 1997; Davis, 1994; Lawrence et al., 2004) that empathy has two main elements: (i) a cognitive element that reflects "the intellectual/imaginative *apprehension* of another's mental state"; and (ii) an emotional element which reflects "an emotional *response* to the emotional responses of others" (Lawrence et al., 2004, p. 911, italics added). Cognitive empathy refers to the ability to take the perspective of another person (Davis, 1994). Emotional empathy, which can be experienced as self-or other-oriented empathy (Davis, 1983) refers to either a paralleling of emotions that are ascribed to that other person (e.g., feelings of pain or discomfort

when observing racial abuse), or a reactive emotional response (e.g., feeling indignation or resentment towards the abuser) (Davis, 1994). Other-oriented high emotional empathy, conceptualised as *empathic concern* by many researchers, is a pro-social motivation that is well established as being related to increased helping behaviour (e.g., Batson, 1991; Batson & Coke, 1981; Davis, 1994), agreeableness (e.g., Graziano, Habashi, Sheesh, & Tobin, 2007), higher self-esteem, and reduced prejudice towards an outgroup member (Batson et al., 1997). In contrast, self-oriented high emotional empathy, conceptualized as *personal distress* (Davis, 1983) relates to less helping behaviour (e.g., Batson, 1991; Davis, 1994).

### **1.5.1. Empathy and Attachment**

The ability of a primary caregiver to understand and treat his/her infant as a separate entity with separate thoughts and feelings from him/herself is a key factor in the development of a secure attachment pattern (Ainsworth et al., 1971; Ainsworth, Bell, & Stayton, 1974). Research has shown that the precursors to empathy are present in early infancy (Vreeke & van der Mark, 2003). Reactive crying is one of the earliest forms of empathic response (Sagi & Hoffman, 1976). Reactive crying is observable in neonates (Simner, 1971), and is a response found to be specific to the distress of other neonates rather to a recording of their own spontaneous cries, computer simulated cries, or the cries of older infants (Simner, 1971). Additionally, facial empathy in neonates (the imitating of facial expressions) is proposed to be an early manifestation of empathic responding to the emotional expressions of the primary caregiver (Meltzoff & Moore, 1989), and one of the earliest forms of communication between an infant and his or her caregiver (Vreeke & van der Mark, 2003).

Although not proposing that neonates are capable of responding to another's circumstances (a requisite of empathy, Davis, 1994), the literature does indicate that humans innately have the building blocks from which empathy develops. Parental responsiveness and sensitivity in early infancy are posited to be mechanisms through which empathy is learned (Barnett, 1987; Bowlby, 1997; Reti et al., 2002), and by 24 months empathic concern for others is observable, even when those others are strangers (Zahn-Waxler, Radke-Yarrow, Wagner, & Chapman, 1992). Thus, empathy is a reactive socio-emotional mechanism (Mehrabian, Young, & Sato, 1988) that is acquired in very early childhood through observation and imitation of caregivers. This suggests that an important contributor to the acquisition of empathic skills is the relationship between an infant and his or her primary caregiver. This may help to explain why there are individual differences in empathy.

One developmental milestone shown to relate to attachment security and empathy is theory of mind (Fonagy, Redfern, & Charman, 1997; Meins, Fernyhough, Russell, & Clark-Carter, 1998). Theory of mind is the ability to understand that others have different beliefs, desires, and intentions than oneself (Baron-Cohen, 2001). Meins et al. (1998) showed that the parents of securely-attached infants are mind-minded, that is, infants are treated as individuals with goals and desires of their own. Furthermore, Meins et al. (2002) illustrated that mind-minded parent-child interactions (vs. interactions involving no mind-mindedness) led to the child developing an earlier understanding of mental states and the acquisition of a representational theory of mind. Additionally, infants who develop the ability to understand the representational nature of his or her own (and

others) thinking (*metacognition*), are less vulnerable to inconsistencies in caregiver behaviour (Main, 1991).

Fonagy, Gergely, Jurist, and Target's (2002) construct of *mentalization* expands Main's (1991) construct of metacognition. Mentalization, operationalised for research as *reflective functioning* (RF; Fonagy et al., 2002), refers to the facility to understand and reflect on the understanding, that one's own or another's behaviours link in meaningful, predictable ways to underlying, changing, and dynamic feelings and intentions (Fonagy et al., 2002). Fonagy et al. (2002) propose that a child's ability to understand him or herself as a mental agent develops through interpersonal experiences within the parent-child relationship. For example, parents high in mentalization will ask questions such as "Why did you do that?" and "How do you feel?" thereby identifying to the child that his or her reasoning is not automatically 'known' by their parents. Moreover, parent-child interactions involving RF, especially in times of distress foster affect regulation skills by congruently mirroring the affective state of their child (Fonagy et al., 2002). For example, parents high in mentalization will appropriately mirror the emotions of the child of a child who is distressed, thereby visually indicating to the child that his or her parent accepts and validates how he or she 'feels' and negative affect abates. Thus, the child learns that he or she is a successful agent in communicating his or her affective state, and that others share this affective state (Fonagy et al., 2002).

Moreover, the child generates an internalized representation of internal states (his or her own, and others') based on the interaction and subsequent reduction of negative affect (Gergely & Watson, 1996). On the other hand, parents low in mentalization will display emotions that are incongruent, or inappropriate to the child's affective state.

Hence, the child's attempts to convey his or her affective state fail, and the child does not develop coherent understanding of how to recognize, express, or regulate their own emotions, or that others share this affective state (Fonagy et al., 2002). Research (e.g., Meins, Fernyhough, Fradley, & Tuckey, 2001; Sharp, Fonagy, & Goodyer, 2006; Slade, Grienenberger, Bernbach, Levy, & Locker, 2005) demonstrates that the mother's mentalization abilities associate with specific attachment patterns. Higher reflective functioning results in an increased willingness to engage in intimate, supportive relationships, whilst in contrast low reflective functioning "is one of the markers of a range of insecure attachment-related states of mind" (Fonagy et al., 2008, p. 764). Thus, reflective functioning is intrinsic to affect regulation and rewarding social relationships (Fonagy et al., 2002; Fonagy, Gergely, & Target, 2008).

The evidence described above suggests that the use of reflective functioning within care giving practices directly exposes infants/young children to empathic behaviours. Thus, reflective functioning facilitates the development of empathic skills. It is clear then, that the exposure to empathic responses and encouragement to develop empathic skills, influences the development of a secure or insecure attachment pattern.

Research has shown that attachment security is associated with high global empathy (e.g., van der Mark, van IJzendoorn, & Bakermans-Kranenburg, 2002), high empathic concern and high perspective taking ability (Joireman, Needham, & Cummings, 2001), two positive components of empathy (Collins & Read, 1990). High dispositional attachment avoidance is predictive of low global empathy (Rowe & Mohr, 2007) and predicts low empathic concern and low perspective-taking ability (Joireman et al., 2002). High attachment anxiety is predictive of low empathic concern (Trusty Ng, & Watts,

2005) and high personal distress (Britton & Feundeling, 2005), but not associated with perspective taking (Joireman et al., 2002).

Thus, people with a secure attachment pattern, who are characteristically comfortable in spontaneously expressing personal feelings and emotions as and when they arise, employ empathic skills such as perspective taking and empathic concern for others. Alternatively, avoidant-attached people actively attempt to avoid emotional commitment to others, do not spontaneously express their feelings and emotions, and minimise the importance of others' needs. Therefore, egoistic motives that leave avoidant-attached individuals uninterested in other people's point of view (Mikulincer et al., 2003) may drive the low empathic skills of avoidant-attached people (Joireman et al., 2001; Rowe & Mohr, 2007). For anxiously-attached individuals the employment of empathic skills indicates a complex and maladaptive pattern. Westmaas and Silver (2001), and Shaver et al. (1996) identify a clear link between attachment anxiety and emotional over-involvement. Fritz and Hegelson (1998) identified that people high in attachment anxiety score higher on a measure of unmitigated communion, which is basically a need to help others even when help is not requested, and even when giving help compromise their own wellbeing (Hegelson, 1994). Fritz and Hegelson (1998) determined that a secure or preoccupied attachment pattern (but not a dismissing or fearful attachment pattern), was associated with high empathy (assessed with the Interpersonal Reactivity Index, Davis, 1983) towards others and high levels of unmitigated communion. Put more simply, people with a secure or preoccupied attachment pattern report high empathy for others and are likely to help others even if it poses risks to their own health.

Research (Mikulincer & Shaver, 2005) demonstrates that one needs to feel a sense of security in order to attune to the needs of others. Mikulincer and Shaver's (2005) investigation of attachment pattern differences in compassion and altruism demonstrated that subliminal priming of attachment security related words (love, hug) and visualizations of security-related scenarios (compared to neutral or positive affect priming), increased compassionate and altruistic responses towards a student whose parents had been killed in an automobile crash. People high in dispositional attachment anxiety reported greater feelings of personal distress than those high in dispositional attachment avoidance, however, both dispositional attachment anxiety and avoidance led to low reports of compassion and altruism. Indeed, it appears that people with an insecure attachment pattern are less able to respond empathically to the needs of others. Moreover, the aforementioned research shows that people differ in empathy (empathic concern and perspective taking) regardless of whether attachment pattern is dispositional or primed, and importantly, that priming attachment security increases empathic responding.

Thus far, the literature indicates that the proposals underpinning this thesis are supported. Attachment patterns associate with prejudice and empathy; but does empathy influence prejudicial responding?

### **1.5.2. Empathy and Prejudice**

Theoretically, SIT may explain the relationship between empathy and prejudice. High ingroup identification indicates that a person favours members of his or her ingroups, regardless of the outcome experienced by outgroups (Tajfel & Turner, 1986). Moreover, the activation of affective states congruent with negative stereotypes associate with negative evaluations of outgroup members (e.g., Esses & Zanna, 1995). Given that

empathy involves identifying and sharing others' negative affective states as an expression of positive affect toward others (e.g., Davis, 1983), it is counterintuitive to suggest that individuals who strongly identify with their group will express high empathy toward an outgroup member in need. Indeed, it appears that a *lack* of empathy towards outgroup members serves to a) increase the likelihood that prejudice will occur, and b) bolster one's own ingroup membership.

Empirically, the connection between high empathy and low levels of prejudice is robust and stable (Batson et al., 2002). High cognitive empathy relates to increased ingroup favouritism (Finlay & Stephan, 2000) and reduced outgroup prejudice (Batson et al., 1997). Esses and Dovidio (2002) posit that one reason for this is that experiencing empathy-inducing outgroup interactions increases the likelihood that outgroups are viewed positively (Esses & Dovidio, 2002). This supposition is supported by the findings of Pederson, Beven, Walker, and Griffiths (2004) that show that dispositionally low empathy (specifically low perspective taking) relates to high self-reported prejudice toward indigenous Australians. Bäckström and Björkud (2007) support the finding that dispositional empathy (perspective taking and empathic concern) related to generalized prejudicial responding, defined as “the tendency to dislike outgroup members no matter which particular group they belong to” (p. 10). Bäckström and Björkud (2007) demonstrated that high dispositional empathy negatively related to generalised prejudice. Additionally, there is evidence that inducing empathy through perspective taking instructions acts to reduce negative evaluations of outgroup members (e.g., Batson et al., 1997; Mikulincer & Shaver, 2001), reduce racism (Finlay & Stephan, 2000), and increase

the likelihood that an individual will actively be involved in programmes aimed at eliminating violence towards gays and lesbians (Karacanta & Fitness, 2003).

In sum, the evidence indicates that dispositionally high or induced empathy directly associates with low prejudice toward outgroup members. Moreover, the evidence suggests that specific components of empathy, in particular perspective taking and empathic concern, are central empathic skills that can explain this relation.

### **1.6. Future directions**

The evidence within this literature review suggests that the level of prejudice that an individual reports toward specific outgroups is influenced by both individual differences in attachment patterns (primed and dispositional) (e.g., Hofstra et al., 2005; Mikulincer & Shaver, 2001; van Oudenhoven & Hofstra, 2006) *and* empathy (e.g., Bäckström & Björkud, 2007; Batson et al., 1997; Esses & Dovidio, 2002; Pederson, et al., 2004). Furthermore, individual differences in attachment pattern (primed or dispositional) are reflected in individual differences in empathy (e.g., Britton & Feundeling, 2005; Joireman, et al., 2001; Rowe & Mohr, 2007; Trusty et al., 2005; van der Mark et al., 2002) which may be influenced by personal relationships with outgroup members. However, the literature at present does not show us the role of empathy in the dynamic between attachment patterns and prejudice. This creates a novel avenue of research that has far-reaching implications both within the field of social psychology and in the wider domain of social policy. This is the focus of my thesis.

## **1.7. Summary**

Theoretically, the attachment history of an individual also provides a basis from which empathy and prejudice are developed. Moreover, an individual's empathic skills (specifically perspective taking and empathic concern) regulate and maintain the expression of prejudice. However, to date no empirical work has explicitly examined the interplay between attachment patterns, prejudice, and empathy. My research is an important addition to social psychological understanding of interpersonal and intergroup processes by combining attachment theory and empathy to understand prejudice. Moreover, my research has important implications for prejudice interventions by highlighting attachment and empathy as mechanisms by which long-term prejudice reduction can be achieved; in turn providing evidence that may influence social policy makers in reaching legislative decisions.

## 2. CHAPTER TWO

### 2.1. Attachment Styles and Prejudice: Is Empathy a Mediator?

*“Let us have but one end in view, the welfare of humanity; and let us put aside all selfishness in consideration of language, nationality, or religion.”*

John Comenius, 17th century philosopher

Humans are an innately social species driven to form and maintain close relationships with others (Allport, 1954/1979; Bowlby, 1997; Diener & Seligman, 2002). Attachment theory (Bowlby, 1997) (See Chapter 1) effectively explains the fundamental nature of this drive in respect to psychological wellbeing. However, at odds with this desire to be in individual and group relationships, humans also perpetually seek out ways of identifying differences between themselves and others, which can result in interpersonal and intergroup conflict (Allport, 1954/1979; Duckitt et al., 2005; Vignoles & Moncaster, 2007) (See Chapter 1). Although intuitively seeming to be conflicting phenomena, research has established that attachment patterns predict prejudice toward outgroup members (Hofstra et al., 2005; van Oudenhoven & Hofstra, 2006). Moreover, variations in both attachment pattern and prejudice are theoretically and empirically associated with empathy (See Chapter 1). Therefore, it seems probable that empathy will have a role within the relation between attachment patterns and prejudice. However, to date there is no empirical research examining the role that empathy may play within this dynamic, an issue addressed in this thesis. Understanding the role of empathy as a possible mechanism to explain attachment pattern differences in prejudice, will identify whether people are less prejudiced because of their high empathy. Furthermore, my research will a) open a novel avenue of psychological research amalgamating two large areas of established knowledge, and b) provide evidence that can be

utilised in the wider social domain, including influencing social policy and intervention strategies aimed at reducing prejudice.

### **2.1.1. Attachment Patterns and Prejudice**

As identified in Chapter 1, the theoretical link between attachment and prejudice emerges by examining the development of individual attachment patterns. Additionally, as stated earlier (Chapter 1), empirical evidence (Hofstra et al., 2005; Mikulincer & Shaver, 2001; van Oudenhoven & Hofstra, 2006) examining the relation between attachment patterns and prejudice is limited. Notwithstanding Mikulincer and Shaver (2001) demonstrated that in a sample of Israeli Jews, priming attachment security reduced negative evaluations of a historically salient outgroup (Arabs). Consistent with Mikulincer and Shaver's (2001) finding, Hofstra et al., (2005), and van Oudenhoven and Hofstra (2006) demonstrated that dispositional attachment security predicted low prejudice toward immigrants. In contrast, Hofstra et al. (2005), and van Oudenhoven and Hofstra (2006) demonstrated that individuals dispositionally high in attachment anxiety or high attachment avoidance reported high prejudice toward immigrants.

Although clearly identifying *how* the development of attachment patterns might associate with prejudice, the aforementioned literature does not identify any specific mechanism that explains the relation. One mechanism demonstrated as related to both attachment patterns and prejudice is empathy.

### **2.1.2. Attachment Patterns and Empathy**

As previously discussed (Chapter 1), attachment theory clearly highlights the importance of maternal sensitivity and responsiveness in the development of attachment patterns (Bowlby, 1997). Bowlby also identified that the empathic skills of a child are reflective of the empathic skills of the primary caregiver (Barnett, 1987; Bowlby, 1997). The

precursors to empathy are found in early infancy (see Chapter 1) and through the mechanisms of parental responsiveness and sensitivity (Barnett, 1987; Bowlby, 1997; Reti et al., 2002) empathy is learned (e.g., Barnett, 1987; Bowlby, 1997; Reti et al., 2002). By the age of approximately 24 months, infants express empathic concern for another's circumstances (i.e., pain, sorrow, fear, etc.) (Zahn-Waxler et al., 1992). Individual differences in empathy are reflective of individual differences in attachment patterns. For example, dispositional attachment security, compared to attachment insecurity, is associated with higher empathy in children (van der Mark et al., 2002) and adults (Trusty et al., 2005).

Joireman et al. (2002) determined that poorer attachment relationships (i.e., oversensitivity, overprotection, or low levels of care) negatively relate to perspective taking and empathic concern. In addition, a secure attachment pattern (dispositional or primed) positively relates to higher empathy (Mikulincer, Gillath, et al., 2001; Wayment, 2006). Moreover, Britton and Feundeling (2005) explored the relationship between dispositional attachment style and empathy using Davis' (1983) Interpersonal Reactivity Index (IRI). According to Davis (1983) empathy consists of both cognitive (perspective taking, fantasy) and emotional (empathic concern, personal distress) components which can work conjointly or independently in influencing the level of empathy expressed. Britton and Feundeling (2005) found that attachment avoidance negatively correlates with empathic concern, and Trusty et al. (2005) found that attachment avoidance relates to low emotional empathy (assessed with the Questionnaire Measure of Emotional Empathy; QMEE, Mehrabian & Epstein, 1972). That is, people high in attachment avoidance are low in empathic concern and emotional empathy for others who are in need. Consistent with this, Rowe and Mohr (2007) found that global empathy (assessed with the Empathy Quotient; EQ, Baron-Cohen & Wheelwright, 2004) is negatively related to attachment avoidance. Furthermore, Rowe and Mohr also considered the component parts of the empathic quotient (cognitive empathy,

social skills, and emotional reactivity) and found that attachment avoidance significantly and negatively related to each component. This indicates that people who are high in attachment avoidance are less able to take the perspective of another, less able to use social skills appropriately in empathy-inducing situations, and less able to mirror the emotions of others. This is not surprising given that the characteristics of the avoidance dimension of attachment include a reduced desire for emotional closeness with another (see Chapter 1), and given that understanding and experiencing the emotions of others are involved in empathy.

Rowe and Mohr (2007) demonstrated that attachment anxiety negatively relates to the social skills component of the EQ, suggesting that highly anxious-attached people are less able to express socially appropriate responses toward a person in need. In addition, Britton and Feundeling (2005) found that attachment anxiety negatively relates to empathic concern (assessed with the IRI), but positively relates to the perspective taking and personal distress IRI subscales. This suggests that people high in attachment anxiety are more able to cognitively appreciate the circumstances of another person who is in need, and experience private anguish about how those circumstances affect themselves, but are less likely to express emotionally empathic responses (e.g., socially appropriate responses) toward the other person. Given that the characteristics of a highly anxious person include inappropriate proximity-seeking behaviour as a means of decreasing self-oriented insecurity (Fraley & Shaver, 2000) (see Chapter 1), and given that social skills (in terms of the EQ) are other-oriented behaviours, it is not surprising that high attachment anxiety related to self-focused anguish rather than other-oriented empathic responding. However, Trusty et al. (2005) found that attachment anxiety positively relates to emotional empathy. Nonetheless, the findings of Trusty et al. and Britton and Feundeling may be due to testing different constructs of empathy. Although the QMEE and IRI both distinguish between various aspects, or components of empathy, the QMEE only assigns an overall trait empathy score. In contrast,

the IRI calculates separate scores for each subscale or component of empathy, thus is a more sensitive measure. Furthermore, to date no significant correlation emerges between the scores on the QMEE and IRI measures (Davis & Kraus, 1997), suggesting the assessment of conceptually different aspects of empathy. In turn, this may influence the results obtained. Since attachment anxiety is characteristically associated with emotional neediness and a desire to avoid rejection, the inconsistency in findings provides evidence that this link requires further empirical examination.

Assessing empathy at a global level as well as at a range of subscale levels is undoubtedly a more sensitive way of determining an individual's empathy. The EQ (Baron-Cohen & Wheelwright, 2004), used by Rowe and Mohr (2007) is a recent measure validated as a potential successor to the IRI (Lawrence et al., 2004). The EQ allows for the assessment of empathy at a global level (combined subscale scores) and at a subscale level (cognitive empathy, social skills, and emotional reactivity). However, the original EQ is a 40-item measure, and recently Muncer and Ling (2006) proposed a shortened 15-item scale as an effective successor to the larger scale based on psychometric analysis of the larger scale. The current study assessed empathy using Muncer and Ling's (2006) shortened version of the EQ (Baron-Cohen & Wheelwright, 2004) in order to re-examine the association between attachment anxiety and empathy.

### **2.1.3. Empathy and Prejudice**

The influence of empathy on determining reactions to salient outgroups is clearly evinced in Jane Elliot's famous "Blue eyes/Brown eyes" prejudice simulation exercise created over four decades ago (Peters, 1987), and popularised by the documentary film "In the eye of the storm" (ABC News, 1970). This exercise labels participants as inferior or superior based solely upon the colour of their eyes and exposes them to the experience of being a minority. With regard to prejudice, this technique is posited to be one of the "earliest

examples of an empathy-inducing intervention” (Levy, West, Ramirez, & Pachankis, 2004, p. 51), a view upheld by the creator when stating “...of course it’s about empathy” (J. Elliot, personal communication, February 1, 2010). Empirical testing of Elliot’s exercise is limited (e.g., Stewart, LaDuke, Bracht, Sweet, & Gamarel, 2003; Weiner & Wright, 1973). Stewart et al. (2003) demonstrated that Elliot’s intervention strategy is highly effective in reducing prejudice in the short term. However, Stewart et al. did not assess empathy, thus any conclusion that empathy is the mechanism by which prejudice reduces is speculative. Empathy is shown to be an essential commodity for pro-social action (Mehrabian et al., 1988). Additionally, empathy mediates changes in the societal phenomenon of prejudice through co-operative learning strategies (Bridgeman, 1981) and role-play in educational settings (McGregor, 1993). Aronson and Bridgeman (1979) propose that these techniques increase perspective taking skills, a critical component of empathy (Davis, 1983).

Importantly, the association between increased empathy and decreased prejudice toward outgroups is not limited to research experimentally testing the effectiveness of participation in prejudice reducing strategies. Enhancing empathy, via perspective taking instructions, opposed to a control condition, significantly decreased negative evaluations of outgroup members who had purportedly written an essay about experiences of discrimination (Finlay & Stephan, 2000). Moreover, Batson et al. (2002) found that enhancing empathy results in less negative attitude towards drug addicts; even after the identification of the target as fictional. This suggests that prejudice towards outgroups is reduced when empathy is experimentally increased, and that this can be achieved even when outgroup members are imagined. Theoretically, and conceptually, empathy should play an important role in the association between attachment style and prejudice. Moreover, given that this area of research is yet untested, it is important to explore this triad. If, as proposed previously people with a secure attachment pattern are less prejudiced, and people with an insecure attachment

pattern are more prejudiced, because of their empathic abilities this finding has profound implications to guide prejudice intervention methods.

#### **2.1.4. Aim of the current study**

The aim of the current study was to examine the relationships between attachment dimensions, prejudice, empathy towards a named target group, and trait empathy at a dispositional level, and tests the novel hypothesis that empathy mediates the link between attachment security and prejudice toward an outgroup. This study assesses empathy in two ways: (1) via the shortened Empathy Quotient (EQ, Muncer & Ling, 2006) to assess trait (dispositional) empathy, and (2) via Batson's (1991) 6-item adjective measure to assess empathy specifically toward the target group of prejudice (Muslims).

#### **2.1.5. Hypotheses**

I hypothesized that people high (vs. low) in trait empathy or Muslim-specific empathy would report lower prejudice (Hypothesis 1). I hypothesized that people high (vs. low) in attachment avoidance would report low empathy (trait or Muslim-specific) (Hypothesis 2) and high prejudice (Hypothesis 3). I hypothesized that people high (vs. low) attachment anxiety will report high levels of prejudice (Hypothesis 4), but there are no specific predictions about empathy due to the mixed findings in the literature (e.g., Britton & Feundeling, 2005; Joireman et al., 2002; Trusty et al., 2005). Hypothesis 5 examines the novel hypothesis that empathy (trait or Muslim-specific) mediates the relationship between attachment avoidance and prejudice. I predicted that low empathy (trait or Muslim-specific) would mediate the relationship between attachment avoidance and high prejudice.

#### **2.1.6. Pilot study**

A critical factor when researching prejudiced views toward others is to identify and use a salient target group. In order to explore the saliency of a variety of groups (including

immigrants) as targets of prejudice, I conducted a pilot study with 15 participants from the target population of sixth form and undergraduate students. I designed a 34-item measure to identify salient and appropriate target groups for future prejudice research.

Participants rated their feelings toward a variety of target groups including immigrants (Asian, African, Afro-Caribbean, and Eastern European), criminals (sexual offenders, violent criminals, and fraudsters), religious groups (extremist Muslims, non-extremist Muslims, fundamentalist Christians, non-fundamentalist Christians, Jehovah's Witnesses, and Mormons), and other 'topical' target groups (Chavs, older adults >70 years of age, obese people, and benefit recipients who choose not to work). Items included 18-target group questions, including "My feelings towards those who are able to work but choose to remain on benefits" and "My feelings towards Eastern European immigrants" and 16-filler items, including "My memories of holidays at home". Participants rated their feelings on a 10-point scale ranging from 1 (extremely negative) to 100 (extremely positive). I reversed all responses prior to analysis so that a high score equalled high negativity.

Six distinct outgroups scored over the midpoint for negativity (Table 1). The most negatively rated group were sex offenders, followed by violent criminals, and fraudsters. As it was considered that the identification of criminals as an outgroup may be more indicative of social, rather than personal attitude, this target group was not chosen for the current study. The second highest negativity scores were toward extremist Muslims, and non-extremist Muslims. As these groups both pertain to Muslims, an overall 'Muslim' negativity score was used in further analysis ( $M = 70.67$ ,  $SD = 14.62$ ). The last group to score over the midpoint for negativity was Chavs. As Muslims are cited in the media as posing a perpetual and realistic threat towards non-Muslims (Saeed, 2007), Muslims were considered to be the most salient outgroup and were used as the target group of prejudice for the purposes of the current study.

Table 1

*Means and standard deviations for groups rated above the midpoint for negativity (Pilot Study data, N=15)*

	<i>M</i>	<i>SD</i>
Sex offenders	86.00	27.72
Violent criminals	82.67	26.31
Fraudsters	76.67	21.60
Extremist Muslims	78.00	21.45
Non-extremist Muslims	63.33	15.89
Chavs	70.00	25.07

## 2.2. Method

### 2.2.1. Participants

Participants were 107 students (89% female;  $M_{age} = 18.48$ ,  $SD = 1.36$ ) self-identified as British and non-religious. The majority self identified as White (95.4%) and heterosexual (94.5%), the remainder self identified as mixed race (1.8%), other unlisted race (2.8%), bisexual (4.5%), and homosexual (0.9%). No participant self identified as Black or Asian. Participants were recruited from a local British tertiary education college (29 female, 15 male;  $M_{age} = 17.23$ ,  $SD = 0.80$ ) where participation was rewarded with chocolate, and from a British University (49 female, 6 male;  $M_{age} = 19.39$ ,  $SD = 0.97$ ) where participation resulted in course credits.

### 2.2.2. Measures

**Attachment.** Attachment patterns were measured using Brennan, Clark, and Shaver's (1998) Experiences in Close Relationships (ECR) scale. This 36-item scale measures variations within two dimensions (18 attachment anxiety-related items;  $\alpha = .93$ , and 18 attachment avoidance-related items;  $\alpha = .89$ ). The anxiety dimension includes items such as "I worry about being abandoned." The avoidance dimension includes items such as "I am nervous when partners get too close to me." Participants rate items on a 7-point Likert scale from 1 (*strongly disagree*) to 7 (*strongly agree*). Low scores on both dimensions indicate a secure attachment pattern, and high scores on both dimensions indicate a fearful attachment pattern. High anxiety and low avoidance scores indicate a preoccupied attachment pattern, and high avoidance and low anxiety scores indicate a dismissing attachment pattern.

**Dispositional trait empathy.** Trait empathy was measured using a shortened version of Baron-Cohen and Wheelwright's (2004) Empathy Quotient (EQ; Muncer & Ling, 2006). This 15-item scale (overall  $\alpha = .96$ ) measures empathy across three subscales. Cognitive empathy refers to perspective taking abilities (5 items, e.g., "I am good at predicting how someone will feel";  $\alpha = .94$ ). Social skills empathy refers to the ability to behave appropriately in social situations (5 items, e.g., "I find it hard to know what to do in a social situation";  $\alpha = .87$ ). Emotional reactivity refers to the tendency to react emotionally to others' mental states (5 items, e.g., "I really enjoy caring for other people";  $\alpha = .91$ ). Participants rated items on a scale from 1 (*strongly agree*) to 4 (*strongly disagree*). Correlations between the EQ subscales ( $r = .76$  to  $.94$ ,  $p < .01$ ) were very high indicating multicollinearity. As a result the subscales for each measure were combined to create an index of empathy ( $\alpha = .96$ ). All further analyses were conducted on the index values for trait empathy.

**Muslim-specific empathy.** Empathy specifically directed toward Muslims was measured using Batson's (1991) 6-item measure ( $\alpha = .90$ ), (sympathetic, moved, compassionate, tender, warm, and soft-hearted). Participants reported the degree to which they experienced each adjective when thinking about Muslims on a 5-point scale ranging from 1 (*not at all*) to 5 (*extremely*).

**Prejudice.** Prejudice was measured using a modified version of the 17-item Allophilia scale (Pittinsky, Rosenthal, & Montoya, 2007) (overall  $\alpha = .97$ ). Although designed to measure positive intergroup attitudes, allophilia has been shown to strongly negatively correlate with measures of prejudice and racism (Pittinsky et al., 2007). High scores on this measure indicate low prejudice, thus all scores were reversed prior to analysis so that high scores indicated high prejudice. I modified the target group from African Americans (original scale) to Muslims. The items consider prejudice along five subscales: (i) Affection (having positive feelings toward target group members) ( $\alpha = .98$ ) e.g., "I respect Muslims", (ii) Comfort (feeling at ease with outgroup members) ( $\alpha = .94$ ) e.g., "I am at ease around Muslims", (iii) Kinship (believing that there is a close personal connection with target group members) ( $\alpha = .92$ ) e.g., "I would like to be more like Muslims", (iv) Engagement (seeking interactions with target group members) ( $\alpha = .92$ ) e.g., "I am motivated to get to know Muslims better", and (v) Enthusiasm (feeling impressed and inspired by target group members) ( $\alpha = .91$ ) e.g., "I feel inspired by Muslims." Participants rated their agreement with each item on a 6-point scale ranging from 1 (*strongly disagree*) to 6 (*strongly agree*). Correlations between the prejudice subscales ( $r = .68$  to  $.94$ ,  $p < .01$ ) were high. As a result the subscales for prejudice were combined to create an index of prejudice ( $\alpha = .97$ ). I conducted all further analyses on the values for overall prejudice toward Muslims.

**Social desirability.** An 8-item shortened version of the Marlow-Crowne Social Desirability Scale (Ray, 1984) (overall  $\alpha = .53$ ) was used to assess the level of social

desirability of participants. Participants indicated their responses to each statement by circling either 'yes', 'no', or 'not sure.' Items included: "Have you sometimes taken unfair advantage of another person?" Socially desirable responses are scored 3, "not sure" is scored 2, and non-socially desirable responses are scored 1; high scores indicate high levels of socially desirable responding.

### **2.2.3. Procedure**

This was a two-part study that involved a set of internet-based questionnaires at Time 1, followed approximately one week later with a pen-and-paper set of questionnaires. To complete the first part of the study participants were sent a link to complete an online questionnaire. All participants were then asked to complete each questionnaire in the same order (demographics, ECR, 15-item EQ) before being reminded on-screen that they would need to complete a second set of questionnaires in order to complete the study. All participants were then contacted via email (i) Totton students were given a 'key code' that would allow their time one and time two data to be paired, (ii) Undergraduates were sent an appointment to complete the study in a lab.

Part two of the study involved a pen-and-paper set of questionnaires, which included measures of Muslim-specific empathy, prejudice, and social desirability. The measures were counterbalanced to avoid order effects. All participants attended an individual session in a classroom (Totton) or lab (University of Southampton). After completing an informed consent form, participants were presented with the same questionnaires (counterbalanced to avoid order effects) in a sealed A4 envelope. On completion, participants placed the questionnaires back inside the envelope which was then resealed and handed to the experimenter. Each participant was thanked, given a written debrief and encouraged to ask questions about the study.

## 2.3. Results

### 2.3.1. Preliminary Data Analysis

All variables were found to be normally distributed and no significant non-linear associations between the variables were found. Therefore the assumptions for analysis using parametric tests were met.

### 2.3.2. Initial Data Analysis of Group Difference

A series of independent group t-tests revealed that there were no significant differences between the Totton College and University of Southampton students on all measures. In all further analyses the results for both groups were combined.

### 2.3.3. Correlation and Regression Analyses

Table 2

*Descriptives and Correlations (all variables) N = 107*

	<i>M</i>	<i>SD</i>	1	2	3	4
1. Avoidance	2.74	1.02	--			
2. Anxiety	3.82	1.18	.06	--		
3. Prejudice	4.19	1.15	.66**	-.14	--	
4. Muslim-specific Empathy	2.03	.81	-.02	-.12	-.20*	--
5. Trait Empathy	2.67	.84	-.78**	.06	-.76**	.01

Note. \*  $p < .05$ , \*\*  $p < .01$

Initial correlation analyses were conducted in order to identify relationships between the variables (Table 2). High trait and Muslim-specific empathy were significantly associated with lower levels of prejudice therefore Hypothesis 1 was supported. However, although people high in attachment avoidance reported lower trait empathy compared to people low in attachment avoidance, there was no significant relationship between attachment dimensions

and empathy specific to Muslims. Therefore Hypothesis 2 is partially supported. As predicted, people high in attachment avoidance report more prejudice towards Muslims than people who are low in attachment avoidance. Therefore Hypothesis 3 of this study is supported. Attachment anxiety was not found to relate to any of the prejudice or empathy variables therefore Hypothesis 4 is not supported, and attachment anxiety was excluded from further analysis.

Table 3

*Hierarchical regression predicting total prejudice scores from attachment avoidance and global empathy.*

Measure	Step 1: Beta	Step 2: Beta	R <sup>2</sup>	F of Change
<i>Prejudice</i>				
Attachment Avoidance	.66**	.16	.43	80.01**
Global empathy		-.63**	.59	39.90**

$F(1,105) = 80.01, p < .01$ ; cumulative  $R^2 = .59$

Note. \*\*  $p < .001$ .

A hierarchical regression was conducted to test whether trait empathy potentially mediated the relationship between attachment avoidance and prejudice toward Muslims. Muslim-specific empathy was not tested as a potential mediator as it did not correlate with attachment dimensions. The mean prejudice score was the criterion variable, with attachment avoidance (Step 1) and trait empathy (Step 2) as predictor variables (Table 3). The model accounted for 59% of the variance. As expected, avoidance predicted high prejudice at Step 1 and at Step 2 trait empathy predicts low prejudice. Moreover, the relationship between attachment avoidance and prejudice (Beta = .66,  $p < .01$ ) becomes non-significant when trait empathy was added to the model, therefore showing mediation. This indicates that people

high in attachment avoidance are less empathic, which in turn leads to higher prejudice toward Muslims.

### 2.3.4. Additional Analysis of Mediation

In order to test the indirect effects of empathy on the relationship between attachment avoidance and prejudice, a more rigorous statistical technique known as bootstrapping analysis (Efron, 1979) was conducted. This method provides an estimate of the magnitude of the indirect effect of mediation, tests its statistical significance, and determines confidence intervals for the point estimates, and is reported to be "...particularly useful for examining sampling distributions" (Mallinckrodt, Abraham, Wei, & Russell, 2006, p. 373).

Bootstrapping randomly selects samples from the dataset using a continuous replacement method (enabling equal probability of reselection in each random sample) to create a very large number of samples (1,000 to 20,000). Calculations of a given parameter for each sample (following the variability of the original sample) are then used to estimate the confidence interval for the population parameter. This approach has been suggested by others as a way of circumventing the power problem introduced by asymmetries and other forms of non-normality in sampling distributions (Bollen & Stine, 1990; Lockwood & MacKinnon, 1998; Shrout & Bolger, 2002). Bootstrapping is a nonparametric approach to effect-size estimation and hypothesis testing that makes no assumptions about the shape of the distributions of the variables or the sampling distribution of the statistic (e.g., Mooney & Duval, 1993).

Table 4

*Results of bootstrapping analysis of mediation relationship (indirect effect)*

	<i>M</i>	<i>SE</i>	LL 95% CI	UL 95% CI	LL 99% CI	UL 99% CI
Effect	.56	.09	.38*	.74*	.33**	.82**

Note. LL = Lower level. UL = Upper level. CI = Confidence interval. \*  $p < .05$ . \*\*  $p < .01$ .

In the current study 1,000 bootstrap resamples were used to test the significance of the mediating effect of trait empathy on the relationship between attachment avoidance and prejudice toward Muslims. The results show that the mediation is significant (Sobel  $z = 5.65$ ,  $p < .01$ ) (Table 4) supporting Hypothesis 5.

## 2.4. Discussion

Consistent with previous research (e.g., Hofstra et al., 2005; Smith et al., 1999; van Oudenhoven & Hofstra, 2006) the current study showed an association between attachment avoidance and prejudice toward Muslims. The results of correlation, regression, and mediation analysis confirm four of the five hypotheses of the current study by showing that people high in attachment avoidance report high levels of prejudice and low empathy compared to those low in attachment avoidance. Importantly, the current study provides support for the novel hypothesis that trait empathy significantly mediates the relationship between attachment avoidance and prejudice toward Muslims. This indicates that people high in attachment avoidance are less empathic towards others and are, in turn, more prejudiced toward Muslims than those low in attachment avoidance. Because a highly avoidant attachment style is characterised by an active evasion of meaningful interpersonal relationships, this may indicate that any capacity for empathy is outweighed by a lack of motivation to apply these skills in response to the needs of another (Mikulincer et al., 2005). Alternatively, the attachment history of an avoidant-attached individual is not conducive to the development of empathic skills. For example, attachment avoidance is associated with infant-parent interactions involving a lack of mind-minded and reflective parenting experiences in early childhood (see Chapter 1). Consequently, the development of the other-oriented cognitions and emotions associated with empathy are unlikely.

### 2.4.1. Empathy and Attachment

In line with previous findings, the current study revealed a negative relationship between attachment avoidance and empathy (Britton & Feundeling, 2005; Rowe & Mohr, 2007); however this is only at the trait level. That is, trait empathy, but not empathy towards Muslims, is negatively related to attachment avoidance. Given that the attachment history of an avoidant individual is not conducive to developing empathic skills (see Chapter 1) the finding that trait empathy is low is predictable. However, finding no relation between attachment avoidance and empathy toward Muslims seems counterintuitive, as one would expect trait empathy to be reflected in empathy toward specific groups. Speculatively, the low empathic ability of an attachment avoidant individual may be further weakened when the group toward whom empathy is assessed is identified. That is, having to focus on a specific group (opposed to the general population) may lead to a heightened activation of an attachment avoidant individual's negative model of others (see Chapter 1) leading to an affective state that suppresses *any* empathic responding.

Attachment anxiety, consistent with the findings of Rowe and Mohr (2007), but inconsistent with the findings of Britton and Feundeling (2005) and Trusty et al. (2005), did not relate to empathy at either level. One key question that arises in the current study is why researchers find conflicting results with regard to the relationship between attachment anxiety and empathy (e.g., Batson et al., 1997; Britton & Feundeling, 2005; Rowe & Mohr, 2007; Trusty et al., 2005). Speculatively, one reason may be due to the use of different empathy measures across these studies. Britton and Feundeling (2005) used Davis' (1983) IRI, whereas Rowe and Mohr (2007) and the current study used Baron-Cohen and Wheelwright's (2004) EQ. Given that the IRI includes a measure of personal distress, which indicates a self-oriented empathic response to another in need (see Chapter 1), whereas the EQ does not, it may be assumptive to expect comparable results between these measures.

The relationship between attachment dimensions and empathy should be further tested. As previously described, contemporary researchers agree that empathy is best considered as a multidimensional construct, and thus should be measured in a multidimensional way (e.g., Baron-Cohen & Wheelwright, 2004; Davis, 1983; Lawrence et al., 2004; Muncer & Ling, 2005). The EQ, used in the current study, does achieve this multidimensional criteria, however it was designed to assess *lack* of empathy in clinical populations, and although shown to be effective in assessing empathy in non-clinical samples (e.g., Andrew, Cooke, & Muncer, 2008; Rowe & Mohr, 2007) it is as yet not as well validated or established as the IRI (Davis, 1983). Given this, the influence that empathy may have on the relationship between individual attachment pattern and prejudice should be further tested using the IRI in order to substantiate the current findings.

#### **2.4.2. Empathy and Prejudice**

The findings show that consistent with previous literature (Bäckström & Björkund, 2007; Batson et al., 2002; Davis, 1983; Esses & Dovidio, 2002; Finlay & Stephan, 2000; Pederson et al, 2004), high trait empathy is predictive of high positivity towards an outgroup member. That is, people reporting high empathy (compared to those reporting low empathy) towards non-specific ‘others’ also reported less prejudice toward Muslims. Furthermore, consistent with the findings of Batson et al. (2002) people reporting more empathy specifically toward Muslims also reported low prejudice toward Muslims. However, no relation emerged between trait and Muslim-specific empathy. Speculatively, as the results demonstrated that Muslim-specific empathy was not related to prejudice, it may be that assessing empathy toward the same group as prejudice leads to one response or the other; prejudice *or* empathy. Given that research demonstrates that an individual cannot experience opposing emotional states (e.g., Brehm, 1999), the negative emotions associated with prejudice (see Chapter 1) may outweigh the positive emotions associated with empathy (see

Chapter 1), and vice versa. Therefore, future research should consider testing empathy and prejudice toward separate groups as a means of addressing the potentially confounding effects of opposing emotions.

### 2.4.3. Limitations

The current research is not without limitations. The majority of the participants in the current study were female (89%), White (95.4%), heterosexual (94.5%) teenagers ( $M_{\text{age}} = 18.48$ ), therefore the results may not be generalised to the whole population.

Notwithstanding, according to the 2001 UK Census, the ethnicity and sexual orientation demographics of the participants are reflective of the UK population (Office for National Statistics, 2006). Traditionally, students are perceived as more liberal than their mainstream counterparts (Furnham, 1985) leading one to question whether the same results would be evinced if a non-student sample were used. Although an older sample may have experienced a greater number of negative intergroup situations, or have developed stronger political attitudes, I would predict that rather than change the pattern of findings, the results would be strengthened. That is, I would expect that an older sample to have well-developed patterns of responding to marginalised groups that would lead to a clear demarcation between those who are tolerant and those who are not. In order to gain a wider sample, future research should use an internet-based data collection method.

A further limitation is that the current study used correlational mediation analysis. Although able to reveal relationships among variables, such analysis does not identify the direction of the relationship, nor can a causal link be assumed (Tabachnick & Fidell, 2001). Although providing a good starting point from which my research can progress, it is important to experimentally test the direction of the relation between attachment, empathy and prejudice. Does the increased empathy associated with low attachment avoidance result in low prejudice, or is the relation actually explained via the effect of low prejudice on

increasing empathy? Future research should experimentally manipulate attachment patterns to examine this relation further.

Another limitation of the current study was that the measures of empathy toward Muslims and prejudice may be tapping into the same construct; that is, a positive attitude toward Muslims. This potentially gives rise to the question of whether empathy can be a mechanism through which the relation between attachment patterns and prejudice can be explained. Given that the Allophilia scale assesses positive attitudes toward Muslims and preceded the six items used to assess Muslim-specific empathy, this argument is fair. However, Muslim-specific empathy negatively correlated with prejudice, and if the Allophilia and empathy measures were assessing the same construct, one would expect the correlation to be positive. Furthermore, Muslim-specific empathy was not related to attachment patterns. Moreover, trait empathy was assessed a week before prejudice was assessed, and the results demonstrate significant correlations with both attachment avoidance and prejudice. Moreover, trait empathy significantly mediates the relationship between attachment avoidance and high prejudice. In order to consider this further, future research should (i) assess empathy not directed toward the target group of prejudice to avoid the problem of assessing positive attitudes toward the target group with the empathy measure rather than empathic skills or feelings, and (ii) assess prejudice using an additional measure known to strongly associate with prejudice (i.e., Social Dominance Orientation, Pratto et al., 1994) in order to validate the reversed Allophilia scale as a measure of prejudice.

#### **2.4.4. Conclusions**

The current study adds a new direction to the field of empathy-related research (e.g., Batson et al., 1997; Britton & Feundeling, 2005; Davis, 1983; Trusty et al., 2005) within social psychology. The most crucial finding of the current study is that the relationship between attachment avoidance and prejudice toward Muslims is dependent on the degree of

empathy that an individual has. The influence that empathy has on the relationship between attachment pattern and prejudice is also shown in research using attachment priming techniques. Research (e.g., Boag & Carnelley, 2010; Mikulincer, Gillath et al., 2001; Westmaas & Silver, 2001) shows that priming attachment security results in increased empathic responding towards immigrants. Furthermore, my own research illustrates that global empathy mediates the relationship between primed attachment security and prejudice towards immigrants (Boag & Carnelley, 2010). This conceptually has profound implications within the domain of social and developmental psychology. If, as shown by theorists (e.g., Bowlby, 1997; Vreeke & van der Mark, 2003; Zahn-Waxler et al., 1992) empathy is dependent on sensitive care giving and positive social interactions in infancy, parental/caregiver programmes aimed at increasing these skills will increase empathy in their children. In turn this will serve two purposes, 1) increased positive responses and sensitive care giving will result in more secure attachments, and 2) increased or enhanced empathy will lead to more openness to developing relationships with outgroup members, thereby reducing prejudice.

Priming studies such as Rowe and Carnelley (2003) show that the priming of attachment security, attachment anxiety, or attachment avoidance results in variations in positive and negative affect. Primed attachment security is associated with increased positive affect, whereas primed attachment anxiety is associated with increased negative affect, and primed attachment avoidance is associated with no affective change (Rowe & Carnelley, 2003). Although mood has been shown not to be influential in the association between primed attachment security and reduced prejudice (Mikulincer & Shaver, 2001), research in this area is very limited. Intuitively, this suggests that the priming of attachment security and insecurity are likely to provide a means of further exploring the relationship between attachment styles and prejudice. For example, does empathy mediate the relationship between

primed attachment dimensions and prejudice? Does priming attachment avoidance increase prejudiced responses? Is empathy influenced by primed, rather than dispositional, attachment patterns differently, or are the same patterns observed? Although priming was not conducted in the current study, there is sufficient cause to suggest that it is a method of research that should be considered in future.

The current research shows that as predicted empathy is a mechanism through which the association between dispositional attachment avoidance and prejudice toward Muslims can be explained. This finding supports Stephan and Finlay's (1999) argument that experimentally increasing empathy *will* lead to increased positivity towards a target, as dispositionally high empathy does indeed relate to increased positive attitude towards Muslims. Furthermore, the finding that it is global, rather than empathy specifically directed at Muslims, that is related to both attachment avoidance and prejudice has important implications for future research into the influence of specific subcomponents of global empathy. For example, are people who are high in global empathy more able to take the perspective of the target? Or are empathic people more likely to be personally distressed at the thought of negatively evaluating someone else? The current study was unable to answer such questions due to multicollinearity between the empathy subscales, which may have been due to the empathy measure used and for the reasons previously discussed. However, the IRI may provide the means by which such questions can be assessed.

In conclusion, the findings of the current study provide an extension of previous understanding individual variations in prejudice. Furthermore, the role of empathy within the relationship between attachment avoidance and prejudice has been clarified, and optimistically suggests that increasing or enhancing empathic abilities will, for attachment avoidant individuals, reduce prejudice toward Muslims.

### 3. CHAPTER THREE

#### 3.1. Primed Attachment Pattern, Empathy, and Prejudice: Is there a Causal Link?

*“Not to him who is offensive to us are we most unfair, but to him who doth not concern us at all.”*

Friedrich Wilhelm Nietzsche (1892)

In the previous chapter I identified that the relation between dispositional attachment avoidance and prejudice toward Muslims was mediated by dispositional trait empathy. This evidence is, as previously stated (see Chapter 2), a key addition to literature examining individual variation in prejudicial responding. However, the findings are correlational, thus unable to illustrate causal relationships between attachment avoidance, empathy, and prejudice. Thus, the aim of the current study is to address this issue.

##### 3.1.1. Dispositional Attachment and Empathy

The ability to be empathically focused on others is characteristically reflective of variations in attachment pattern. Perspective taking and empathic concern are shown to be highest in people with a secure attachment pattern (e.g., Batson et al., 1997; Joireman et al., 2002; Rowe & Mohr, 2007), and lowest in people high in attachment avoidance (e.g., Batson et al., 1997; Joireman et al., 2002; Rowe & Mohr, 2007). Personal distress is shown to be lowest in avoidant-attached people and highest in people high in attachment anxiety (e.g., Britton & Feundeling, 2005; Joireman et al., 2002; Rowe & Mohr, 2007). Moreover, a securely-attached person is altruistically compassionate towards a person in need (Mikulincer et al., 2005); suggesting that any personal distress experienced is outweighed by empathic concern. A highly avoidant person lacks compassion because egoistic motives leave them uninterested in other people’s point of view (Mikulincer et al., 2005) thus personal distress

may be experienced, but not empathic concern. People high in attachment anxiety are unlikely to feel compassion toward, or take the perspective of a person in need perhaps due to a heightened focus on how the situation makes *them* feel. This suggests that for attachment-anxious people the resources required to perspective take or feel empathic concern are unavailable (Mikulincer et al., 2005).

### **3.1.2. Primed Attachment Patterns and Empathy**

The contextual activation of attachment-related cognitions (via priming) is a well-validated method of showing cause and effect relationships (see Chapter 1). Research demonstrates that primed attachment security associates with decreased negativity toward outgroup members (Mikulincer & Shaver, 2001) and increased empathy toward people in need (Mikulincer & Shaver, 2005). Theoretically, this suggests that priming attachment security enhances the activation of the care giving system, which is expressed in greater tolerance of outgroups and willingness to provide care for others who are in need (Mikulincer & Shaver, 2005). Primed attachment anxiety (Bowles & Meyer, 2008) and primed attachment avoidance (Beck & Clark, 2010) are shown to associate with negative social appraisals of others. Theoretically, this suggests that priming attachment insecurity deactivates the care giving system, which leads to expressions of greater intolerance toward others. However, I can find no empirical evidence examining the role of primed attachment anxiety or avoidance and empathy. Research shows that aspects of empathy (perspective taking, empathic concern, and personal distress) relate to attachment patterns (Mikulincer & Shaver, 2005) and reduced negative attitude towards stigmatised groups (e.g., Batson et al., 2002). Given that primed attachment security (low attachment anxiety and avoidance) increases empathy (Mikulincer & Shaver, 2005); it is likely that priming attachment anxiety or attachment avoidance will result in reduced empathy. However, this assumption is speculative, and will be tested further within the current study.

### 3.1.3. Empathy and Prejudice

Batson et al. (2002) showed that inducing empathy via instructions to take the perspective of a stigmatised person in need (woman with AIDS- Study 1; homeless man – Study 2) resulted in increased empathy towards both the individual and towards all others in their group (i.e., all people with AIDS, all homeless people) both immediately and after two weeks. Whilst supporting the theoretical proposition that empathy is multi-dimensional (e.g., Baron-Cohen & Wheelwright, 2004; Davis, 1983) Batson et al.'s (2002) findings also suggest that empathy is a three-stage process, with perspective taking as the primary element. Indeed, Batson et al. infer that without perspective taking, empathic responding would not be possible. Moreover, Batson et al.'s findings are useful in providing a conceptual link that may explain why people high in empathy are low in prejudice. For example, if an individual is willing and able to take the perspective of a person from a stigmatised group empathic concern towards them will be experienced, and in turn this empathy will generalise to the whole group.

Additionally, Batson et al. (2002) enhanced empathy toward an individual who was not a member of the stigmatised groups used in their study. Thus, empathic responding differed to positive feelings toward the stigmatised groups, a potential limitation of my previous findings (see Chapter 2). Given that evidence (e.g., Boag & Carnelley, 2010) shows that higher empathy predicts lower prejudice, and that perspective taking *leads* to empathic concern (Batson et al., 2002); do perspective taking and empathic concern independently influence prejudicial responding?

In the previous chapter empathy subscales assessed with the EQ (Baron-Cohen & Wheelwright, 2004) were highly inter-correlated and had to be combined into an overall index of empathy (See Chapter 2). Although demonstrating that empathy mediated the relation between attachment avoidance and high prejudice, it was not possible to assess the

influence of separate empathy subscales. Additionally, as well as suffering problems of multicollinearity, the subscales of the EQ would not have provided evidence supporting the role of empathic concern, as it is not assessed. This issue does not arise in the Interpersonal Reactivity Index (IRI; Davis, 1983). The IRI separates emotional empathy into empathic concern (other-oriented empathy) and personal distress (self-oriented empathy), whereas the EQ only looks at emotional empathy (a combination of self- and other-oriented empathy). As all of these parts appear to be critical in empathic responding to outgroup members (e.g., Batson et al., 2002), empathy is assessed in the current study using Davis' (1983) Interpersonal Reactivity Index (IRI). Additionally, in order to test the reliability of the relationship between primed attachment patterns and prejudice I assessed prejudice in two ways. First, prejudice was measured with Pittinsky et al.'s (2007) Allophilia Scale, additionally I measured Social Dominance Orientation (SDO, Pratto et al., 1994), a personality variable found to be highly correlated with prejudice (e.g., Pratto et al., 1994; Sidanius et al., 2001; Sidanius & Pratto, 1999).

#### **3.1.4. Aim of the current study**

In the previous chapter findings demonstrate a correlational relationship between dispositional attachment patterns and prejudice toward Muslims and shows that this relationship was mediated by dispositional empathy towards others. However, one criticism is that the relationships found are only correlational, and no cause-and-effect relations can be concluded (see Chapter 2). Thus, the aim of the current study is to test the causal role of attachment patterns on empathy and prejudice. As previously outlined (See Chapter 1) the contextual activation of attachment-related cognitions (via priming) is a well-validated method of showing cause and effect relationships. Therefore the current study tests the relationship between primed attachment patterns on empathy and prejudice more closely.

Past research (Hofstra et al., 2005) has illustrated that attachment anxiety links to prejudice, a finding not evinced in Chapter 2. In order to study this further I propose to manipulate (prime) attachment anxiety. Furthermore, in order to better understand the link between attachment avoidance and prejudice, I also propose to prime avoidance to determine whether avoidance causes prejudice due to low empathy. In addition, I aim to examine which aspects of empathy are the most important mediators of the link between attachment patterns and prejudice. Batson et al. (2007) suggest that perspective taking is the keystone of empathic responding (a precursor to empathic concern). Therefore, perspective taking may be an important mediator of the link between attachment security and low prejudice. It might be necessary to take another's perspective in order to develop a positive attitude towards that outgroup member. Alternatively, empathic concern might be most important. Maybe feeling compassion for another, regardless of whether or not one can see things from the other's perspective is what is necessary to develop a positive attitude towards that outgroup member. Given that the personal distress aspect of empathy is self-focused, I do not expect personal distress to mediate the link between attachment security and prejudice. Identifying the specific aspects of empathy that mediate has important implications for interventions which use empathy induction to reduce prejudice (Batson & Ahmad, 2009). Empathy inductions could be tailored to attachment patterns and focus on perspective taking instructions or on increasing compassion and sympathy, depending on results.

### **3.1.5. Pilot Study**

#### **Selection of target group.**

In order to show more generalisable findings the current study assesses the causal influence of primed attachment style on prejudice towards Chavs, a target group found to be salient in a pilot study with undergraduates, sixth-form college students, and the general public (see Chapter 2.). However, after analysis of early data ( $N = 45$ ) it was found that

participants' responses on the prejudice measure, regardless of priming condition  $F(2, 43) = .29, p = .75$ , led to a potential ceiling effect whereby all responses were very high. The mean values were all above the midpoint (secure prime  $M = 4.80$ , avoidant prime  $M = 4.99$ , anxious prime  $M = 4.96$ ), suggesting that either (a) the rating scale was too restrictive, or (b) Chavs is a social group towards whom all participants have negative attitudes towards as they may be perceived as criminal, violent, or aggressive. If this is the case, any design using Chavs as a target of prejudice may be flawed as it could be argued that the negative attitudes that people hold are not prejudicial as they are 'justified' rather than unwarranted (prejudice).

In order to consider the latter of these two issues, a small-scale study was conducted comparing the opinions of undergraduates, postgraduates, and members of the general public ( $N = 16$ ; 8 males, 8 females) towards images of both male and female members of a number of contemporary social groups (Skinheads, Chavs, Goths, Emos, Muslims, and Hippies). Participants rated how descriptive 18 adjectives; 10 positive (Honest, Compassionate, Calm, Caring, Empathic, Reliable, Loving, Artistic, Peaceful, Respectful) and 9 negative (Anxious, Criminal, Violent, Agitated, Indifferent, Deceitful, Aggressive, Cruel) were of each social group using a 6-point scale ranging from 1 (*Extremely unlike them*) to 6 (*Extremely like them*).

An independent group t-test revealed no significant difference between the positive and negative ratings made by male and female participants. Male Emos were rated more negatively than female Emos  $t(15) = -2.52, p < .05$ , and male skinheads were rated marginally more negatively than female skinheads  $t(15) = -2.06, p = .06$ . No other gender differences emerged.

In order to consider whether Chavs are rated negatively because of perceived criminality participants' responses to items relating to criminality (criminal, violent,

aggressive, cruel, and deceitful) were analysed. Ratings across the five variables were computed to give an overall index of criminality.

Skinheads were rated as most criminal ( $M = 3.54$ ,  $SD = .88$ ), followed by Chavs ( $M = 3.40$ ,  $SD = 1.27$ ), Muslims ( $M = 3.10$ ,  $SD = 1.47$ ), Goths ( $M = 2.50$ ,  $SD = .85$ ), Emos ( $M = 2.35$ ,  $SD = .73$ ) and Hippies ( $M = 2.18$ ,  $SD = .77$ ). However, although the mean criminality value achieves the midpoint for skinheads, Chavs are slightly below the midpoint. This indicates that although considered more criminal than the other social groups in this study, skinheads were perceived as most criminal and Chavs as moderately criminal. Notwithstanding, it is possible to argue that given these findings, that Chavs are potentially ineffective as a target of prejudice, as negative attitudes may be *because* of perceived criminality (even moderate) rather than reflect unwarranted negative attitudes such as prejudice. Given these results, and given that Muslims are the next highest scoring group, but well below the midpoint; the target group for the present study was revised to “Muslims”, the target group used in Chapter 2.

### **3.1.6. Hypotheses**

It is predicted that perspective taking (Hypothesis 1) and empathic concern (Hypothesis 2), will be highest in people primed with attachment security and lowest in people primed with attachment avoidance. Conversely, I expect the personal distress aspect of empathy to be highest in people primed with attachment anxiety and lowest in people primed with attachment security (Hypothesis 3). It is predicted that prejudice (Hypothesis 4) and SDO (Hypothesis 5) would be highest in people primed with attachment avoidance and lowest in people primed with attachment security. And finally, I expect high empathy to mediate the relationship between primed attachment security (versus avoidance) and low prejudice (Hypothesis 6); and primed attachment security (versus avoidance) and low SDO (Hypothesis 7).

## 3.2. Method

### 3.2.1. Participants

Participants were 89 volunteers (91% students, 83% female;  $M_{\text{age}} = 23.9$ ,  $SD = 8.7$ ) recruited from various websites used for social psychological research<sup>4</sup>. The majority of participants were Christian (49%) followed by 39% who identified themselves as ‘not religious’. The remainder identified as Buddhist (1%), Jewish (1%), Mormon (1%), and Other (7%). One participant identified as Muslim and their data was excluded from analysis ( $N = 88$ ).

### 3.2.2. Priming Manipulation

The priming manipulations involved visualising and writing about a specific type of relationship for 8 minutes (adapted from Bartz and Lydon, 2004). For the secure prime participants visualised a relationship involving emotional closeness, comfort in dependency on partner, and no fear of abandonment. For the avoidant prime participants visualised a relationship involving discomfort with closeness, difficulty in depending on partner, and discomfort with partners need for intimacy. For the anxious prime participants visualised a relationship involving fear of abandonment or rejection from partner, and a desire for greater intimacy.

### 3.2.3. Measures

**Empathy.** Global empathy was assessed using a 12-item modified version of the Interpersonal Reactivity Index (IRI; Davis, 1983) ( $\alpha = .77$ ). Participants read a short vignette about a misfortune faced by ‘Sam’ prior to rating how true or untrue each item was as a reflection of feelings experienced in response to his/her situation using a 7-point scale

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<sup>4</sup> Websites advertising the study were:

<http://psych.hanover.edu/Research/exponnet.html>; <http://www.w-lab.de/lab-united/actual.php>; <http://www.onlinepsychresearch.co.uk>

ranging from 1 (*Not at all true*) to 7 (*Extremely true*). Four items related to perspective taking (e.g., *I am able to understand Sam better by imagining how things look from Sam's perspective*) ( $\alpha = .87$ ), four items related to empathic concern (e.g., *When I read of how Sam is feeling, I feel kind of protective towards Sam*) ( $\alpha = .65$ ) and four items related to personal distress (e.g., *I feel helpless when I think of Sam's situation*) ( $\alpha = .75$ ). Additionally, scores for each subscale were assessed individually, with higher scores indicating higher perspective taking, empathic concern, or personal distress.

**Prejudice toward Muslims.** Prejudice was measured using the same prejudice measure as in Chapter 2 ( $\alpha = .96$ ).

**Social Dominance Orientation.** Pratto et al. (1994) 16-item Social Dominance Orientation (SDO) scale was used to assess prejudiced attitude ( $\alpha = .95$ ). Participants rated how much they agreed or disagreed with each item using a 6-point Likert scale ranging from 1 (*Strongly Disagree*) to 6 (*Strongly Agree*). Eight items relate to social dominance and include statements such as “*If certain groups stayed in their place, we would have fewer problems*”, the remaining eight items relate to social equality and include statements such as “*We would have fewer problems if we treated people more equally*”. The social equality items were reverse-scored and combined with the social dominance scores to give an index of SDO; a higher score indicated higher SDO.

**Mood repair items** In order to counteract any potential for the insecure attachment primes or prejudice measures to elicit negative affect, each participant was asked to describe “the five best things or times” in their life as a mood repair tool at the end of the study.

### 3.2.4. Procedure

Participants completed materials online and were randomly assigned to the secure attachment prime, anxious attachment prime, or avoidant attachment prime condition. Participants were asked to visualise a person with whom they have a secure, avoidant, or

anxious relationship before writing about that person for eight minutes. Afterwards, participants completed an empathy measure and measures of prejudice and SDO. The prejudice and SDO measures were counterbalanced in order to avoid order effects. Participants were debriefed on completion.

### **3.3. Results and Discussion**

#### **3.3.1. Preliminary data analysis**

No outliers emerged and all variables were found to be normally distributed. No significant non-linear associations between the variables were found. Therefore the assumptions for analysis using parametric tests were met.

#### **3.3.2. Effects of Attachment Prime on Empathy**

A one-way Analysis of Variance (ANOVA) was computed on the dependent variables by prime (secure, anxiety, or avoidance) (Table 5). Post hoc pairwise comparisons (Scheffe) were conducted. Participants in the secure- ( $M = 4.10$ ,  $SD = .55$ ) and anxious-prime ( $M = 4.23$ ,  $SD = .48$ ) condition reported higher total empathy than people in the avoidance prime condition ( $M = 2.13$ ,  $SD = .88$ ), supporting Hypothesis 1.

Consistent with Hypotheses 1 and 2, participants in the secure prime condition reported higher perspective taking and empathic concern than those in the avoidance prime condition; furthermore, anxious-primed individuals reported higher perspective taking and empathic concern than did avoidant-primed individuals. Moreover, participants in the anxious prime condition reported higher personal distress than those in the secure or avoidant prime conditions, supporting Hypothesis 3.

Table 5

*Empathy Subscales, Prejudice, and Social Dominance Orientation by Primed Attachment Pattern*

	Primed Attachment Pattern						<i>F</i>
	Secure		Avoidant		Anxious		
	<i>M</i>	SD	<i>M</i>	SD	<i>M</i>	SD	
Total Empathy	3.84 <sub>a</sub>	.55	2.38 <sub>b</sub>	.70	4.08 <sub>a</sub>	.45	75.97***
Perspective Taking	5.19 <sub>a</sub>	.67	2.25 <sub>b</sub>	1.23	4.43 <sub>a</sub>	.92	72.67***
Empathic Concern	4.62 <sub>a</sub>	.99	2.01 <sub>b</sub>	1.03	3.83 <sub>c</sub>	.75	61.17***
Personal Distress	2.11 <sub>a</sub>	.90	2.15 <sub>a</sub>	.82	4.36 <sub>b</sub>	1.14	52.24***
Prejudice	3.55 <sub>a</sub>	1.01	4.69 <sub>b</sub>	.95	3.67 <sub>a</sub>	1.12	11.29***
Social Dominance Orientation	2.22 <sub>a</sub>	.92	3.93 <sub>b</sub>	1.24	2.50 <sub>a</sub>	.85	24.28***

*Note.* Row means with different subscripts significantly differ at  $p < .01$ . Secure prime  $N = 27$ , Avoidant prime  $n = 32$ , Anxious prime  $N = 29$ .

\*\*\*  $p < .001$ .

### 3.3.3. Effects of Attachment Prime on Prejudice

Results showed that participants primed with attachment security or anxiety reported lower prejudice and SDO toward Muslims than those primed with attachment avoidance. These findings are consistent with Hypotheses 4 and 5. However, there were no differences between those primed with anxiety or security on prejudice or SDO.

### 3.3.4. Correlation and Mediation Analyses

Correlations (Table 6) showed that high empathy is associated with low prejudice and low SDO. Bootstrapping for multiple mediators (Preacher & Hayes, 2008) was used to test for mediation. Prime conditions were contrast coded so that comparisons could be made between

two prime conditions whilst holding the third constant. Primed avoidance (vs. security) was coded as D1, and primed anxiety (vs. security) was coded as D2. Comparisons were made twice (each using one contrast as the IV and the other as a covariate) using Preacher and Hayes' (2008) SPSS macro.

Table 6

*Correlations between Variables*

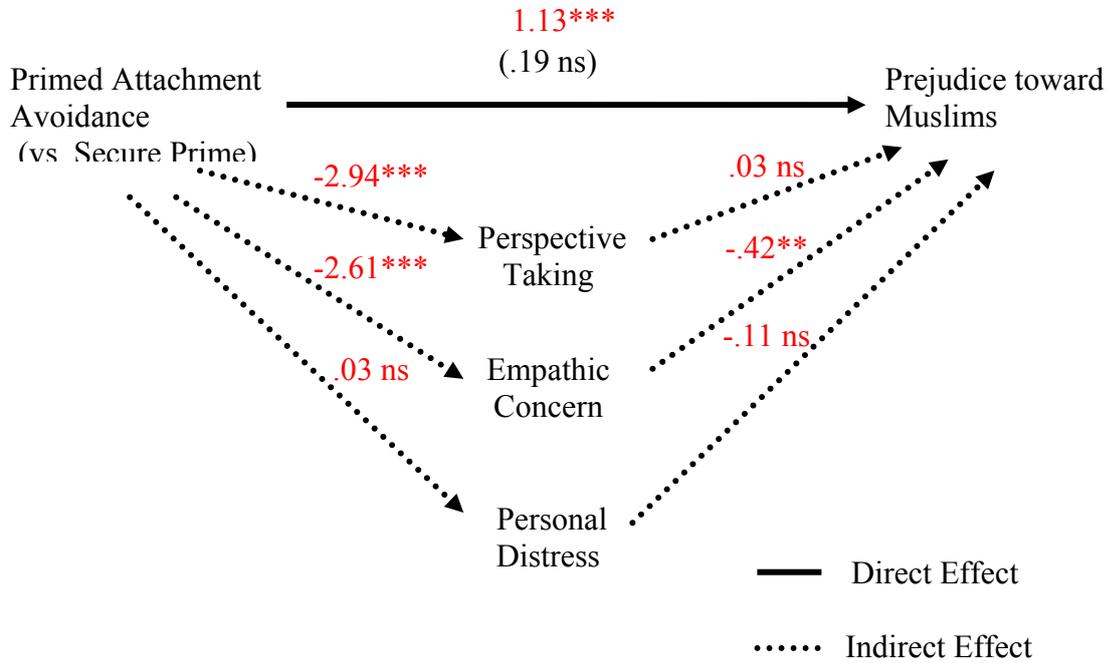
	1	2	3	4	5
1. PT	--	.84**	.17	-.46**	-.61**
2. EC		--	.17	-.55**	-.61**
3. PD			--	-.24*	-.22*
4. Prejudice				--	.66**
5. SDO					--

*Note.* PT = perspective taking ability, EC = empathic concern, PD = personal distress, SDO = social dominance orientation. \*  $p < .05$ , \*\*  $p < .01$ .

Across all comparisons, attachment anxiety was not a significant predictor of prejudice. Two analyses were conducted to assess the mediating role of perspective taking, empathic concern and personal distress on the relationships between attachment prime and prejudice and attachment prime and SDO. In the analyses all three subscales were added simultaneously to examine both independent and contrasting indirect effects.

Figure 3 shows that when all three empathy subscales were entered as mediators, only empathic concern was a significant predictor of higher prejudice ( $t = -3.00, p < .01$ ) and primed avoidance no longer predicted prejudice. Bootstrapping contrasts of the indirect effects of the three subscales revealed that empathic concern was the only significant mediator in the relationship between primed avoidance and prejudice, and contrasts showed a significant difference between empathic concern and personal distress. Therefore empathic

concern uniquely mediates the link between primed avoidance and prejudice above and beyond the effects of the other empathy subscales.



Note. \*\*\*  $p < .001$ , \*\*  $p < .01$ , \*  $p < .05$

$R^2 = .33, F(5,82) = 7.90, p < .001$

**95% CI**

Perspective Taking (-.31, .69)

Empathic Concern (.29, 1.81) \*

Personal Distress (-.86, .52)

**95% CI Contrasts**

Perspective Taking – Empathic Concern (-.199, .21)

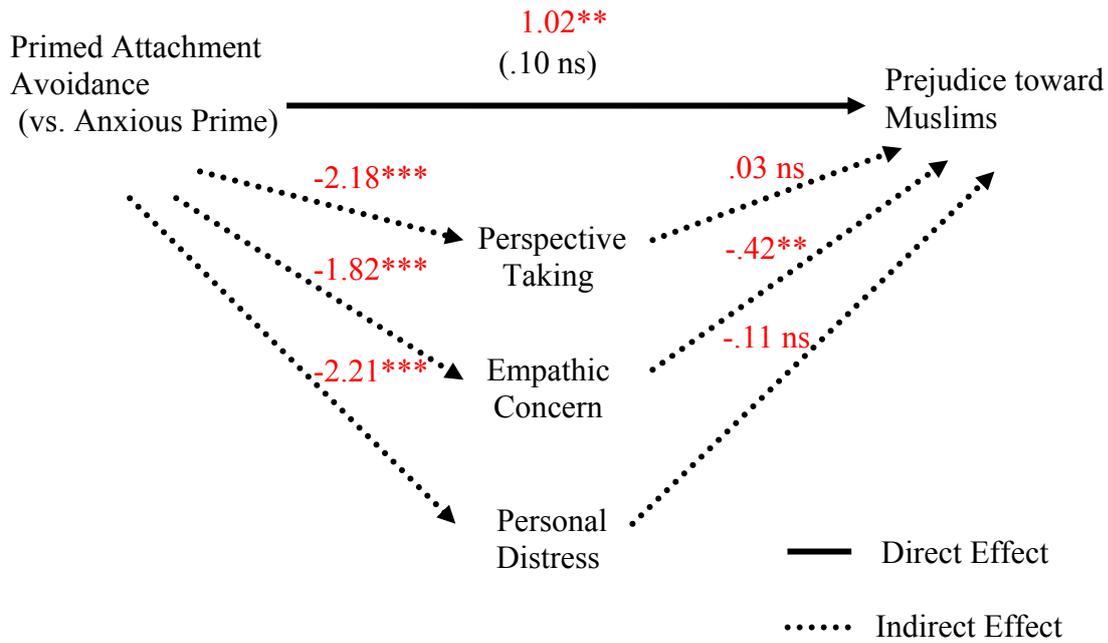
Perspective Taking – Personal Distress (-1.15, .40)

Empathic Concern – Personal Distress (.30, 1.84) \*

Total effect: Total  $R^2 = .27, F(3,84) = 10.35, p < .001, (95\% \text{ CI} = .01, 1.26) *$

Figure 3.

Effect of empathy subscales on relationship between primed attachment avoidance (vs. security and controlling for anxiety) and prejudice



$$R^2 = .33, F_{5,82} = 7.90, p < .001$$

Note. \*\*\*  $p < .001$ , \*\*  $p < .01$ , \*  $p < .05$

#### 95% CI

Perspective Taking (-.74, .49)

Empathic Concern (.19, 1.38)\*

Personal Distress (-.24, .72)

#### 95% CI contrasts

Perspective Taking – Empathic Concern (-1.98, .21)

Perspective Taking – Personal Distress (-1.04, .46)

Empathic Concern – Personal Distress (-.34, 1.44)

Total effect: Total  $R^2 = .27, F_{(3,84)} = 10.39, p < .01, (95\% \text{ CI} = .09, 1.53)*$

Figure 4.

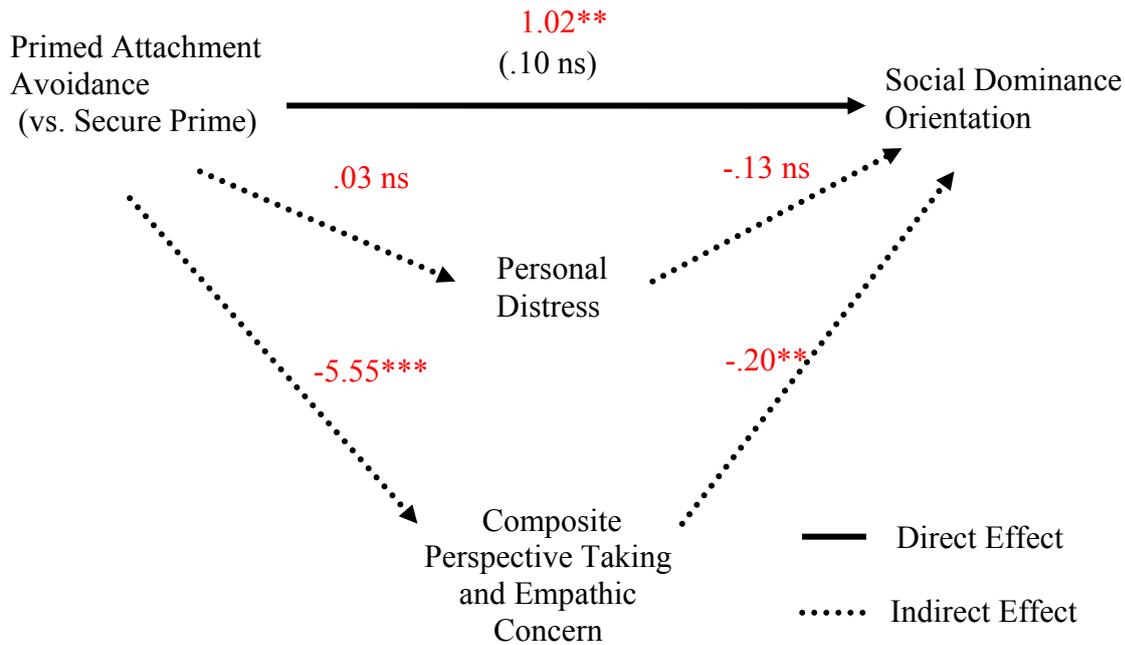
Effect of empathy subscales on relationship between primed attachment avoidance (vs. anxiety and controlling for security) and prejudice

The contrasts in Figure 3 indicate that the difference between primed attachment avoidance and primed attachment security is mediated by both empathic concern and perspective taking. Given the association between attachment anxiety and personal distress

(see Chapter 1), I was interested in examining whether the difference between primed attachment avoidance and primed attachment anxiety would be mediated by personal distress. In order to examine this I conducted a further multiple mediation analysis (see Figure 4). I coded primed avoidance vs. primed security (keeping primed anxiety constant) as D1, and primed avoidance vs. primed anxiety (keeping primed security constant) as D2.

As previously shown primed avoidance (versus security) predicted high levels of SDO. When all three empathy subscales were entered as mediators no single empathy subscale significantly predicted SDO, but the total effect was significant, Total  $R^2 = .44$ ,  $F(3, 84) = 12.95$ ,  $p < .01$ , (95% CI = .16, 1.72). This indicates that the mediating effects of total empathy are reliant on the influence of all empathy subscales.

Given that perspective taking and empathic concern are both highly correlated with SDO (see Table 6), I examined whether the lack of relation evinced above could be found if the perspective taking and empathic concern subscales were combined. Bootstrapping illustrated that the relation between primed attachment avoidance (vs. secure, controlling for anxiety) and SDO was significantly mediated by a composite of perspective taking and empathic concern (see Figure 5). Taken in conjunction with my previous findings regarding primed attachment and SDO, it is evident that the mediating role of total empathy is entirely explained by a combination of perspective taking and empathic concern, and that personal distress has no role in this relation.



$$R^2 = .44, F_{4,83} = 16.37, p < .001$$

Note. \*\*\*  $p < .001$ , \*\*  $p < .01$ , \*  $p < .05$

#### 95% CI

Personal Distress (-.11, .06)

Composite Perspective Taking and Empathic Concern (.41, 1.73)\*

#### 95% CI contrast

Personal Distress – Composite score (-1.74, -.41)\*

Total effect: Total  $R^2 = .44, F(3,84) = 12.95, p < .01, (95\% \text{ CI} = .16, 1.72)^*$

Figure 5.

Effect of composite empathy and personal distress on relationship between primed attachment avoidance (vs. anxiety and controlling for security) and SDO

### 3.4. Discussion

Consistent with hypotheses, Study 3 shows that primed attachment avoidance (versus security) leads to more prejudice due to low empathy, in particular empathic concern. This suggests that the mediating role of total empathy in the relationship between primed avoidance and prejudice is particularly driven by low levels of empathic concern. However,

this interpretation should be made with caution as empathic concern and perspective taking were highly correlated which might disguise the importance of perspective taking in this mediating role (Preacher & Hayes, 2008). Alternatively, this result might indicate that attachment avoidance leads to low perspective taking, which in turn leads to low empathic concern and high prejudice. This is an avenue for future research.

In addition, the results demonstrate that the difference between attachment avoidance and attachment security is mediated by avoidants' lower perspective taking and empathic concern, whereas the difference between attachment avoidance and attachment anxiety is mediated by avoidants' lower ability in all empathy subscales. Given that personal distress is consistently linked to high attachment anxiety, whereas low personal distress is linked to high attachment avoidance (e.g., Britton & Feundeling, 2005; Joireman et al., 2002; Rowe & Mohr, 2007) the finding that there is no specific empathic mechanism that explains the difference between attachment avoidance and attachment anxiety appears counterintuitive. However, it can be argued that dispositional empathy may not be powerful enough to delineate between empathy subscales when attachment insecurity is primed. Speculatively, it can be suggested that this lack of specificity may be addressed by also enhancing empathy via using perspective taking vs. remain objective instructions. This is a direction for future research.

Moreover, extending previous research (Joireman et al., 2002), the current study shows that people in the avoidant-prime condition reported the lowest total empathy, perspective taking and empathic concern. This suggests that highly avoidant people do not feel empathic towards others due to a lack of: (a) attention to the needs of others and (b) emotional commitment to the needs of others (i.e., feelings of compassion, sympathy, or tenderness). In contrast, I show that people primed with attachment security report the highest total empathy, perspective taking, and empathic concern. This is consistent with previous

research showing that securely attached people are more empathic, caring, compassionate, and attentive to the needs of others (Batson et al., 1997; Joireman et al., 2002).

Furthermore, although research shows that prejudice and SDO are intrinsically linked, my results show that unlike prejudice, the relationship between attachment prime and SDO is only explained by combining perspective taking and empathic concern scores. This finding suggests that when the target group of prejudice is named (i.e., Muslims) attachment avoidant individuals' lack of emotional empathy results in high prejudice, whereas when the target group of prejudice is unnamed (i.e., 'other' groups in society) attachment avoidant individuals utilise both a lack of emotional empathy *and* poor perspective taking ability in making socially dominant responses. Notwithstanding, this interpretation is speculative and would require further testing to determine its accuracy. This is a topic for future research.

The current research is not without limitations. Demographically, the sample was mainly white, female undergraduate students aged approximately 20, thus one cannot assume that the results are generalisable to a wider population. Rather, I would predict that with an older, more varied sample with greater life-experience or stronger political affiliation, that the pattern results would remain consistent, but increase in intensity. Nevertheless, the findings extend previous research which shows that low empathy is linked to the development of social dominance orientation (Duckitt et al., 2005).

## 4. CHAPTER FOUR

### 4.1. Self-reported Discrimination and Discriminatory Behaviour: The Role of Attachment Security

*“What people actually do in relation to groups they dislike is not always related to what they think and feel about them.”*

Allport, 1954/1979, p. 14

So far, the research within this thesis clearly shows the influence of attachment avoidance on self-reported prejudice toward Muslims via variations in empathic concern. Although undoubtedly a significant addition to the literatures regarding attachment, prejudice, and empathy, a fundamental question arises. Can the findings be extended to explain the link between self-reported and *actual* behavioural prejudice (discrimination)?

In social psychology, discrimination is defined as “The practice of drawing arbitrary distinctions between one set of people and another, such as is formed in a group of highly prejudiced individuals taking steps to limit or restrict access to privileges or resources by a minority group” (Stratton & Hayes, 1999, p. 79). Put more succinctly, discrimination refers to any harmful action toward a person (or group) based on the ascription of outgroup membership (Fishbein, 2002). It is argued (Parkins, Fishbein, & Ritchey, 2006; Schutz & Six, 1996) that discriminatory behaviours are driven by personal prejudices or stereotypes of marginalised groups, but counter-intuitively the literature demonstrates that prejudice does not necessarily drive behaviours analogous with self-reported responses to minorities (Devine, 1989; Dovidio, Kawakami, & Gaertner, 2002; Fazio, Jackson, Dunton, & Williams, 1995; La Pierre, 1934; Plant & Devine, 1998). Thus, discrimination, defined as a means of “...limit[ing] or restrict[ing] access to privileges or resources by a minority group” (Stratton

& Hayes, 1999, p. 79) warrants closer investigation if social psychologists wish to make a useful contribution to reducing prejudice.

#### **4.1.1. Attachment and Prejudice**

Previously (See Chapters 2 and 3) I have determined that the relation between attachment avoidance and high prejudice is indirectly explained by low empathy. In contrast I have determined that the relation between attachment security and low prejudice is explained by high empathy. Moreover, I have demonstrated the specificity of empathic concern as the empathic mechanism by which the relations occur (See Chapter 2). Although the literature described in the previous chapters suggest that attachment patterns are potential predictors of discriminatory behaviour, this has not yet been empirically tested.

#### **4.1.2. Prejudice and Discrimination**

Within the prejudice literature, one of the earliest and most cited studies examining the relation between the attitude of prejudice and discriminatory behaviour is LaPierre (1934). La Pierre (1934) argued that questionnaire measures aiming to examine the relation between self-reported intention to act with prejudice (discrimination) and subsequent discriminatory behaviour merely assessed hypothetical responding to hypothetical scenarios. Based on the premise that examining this relation requires that the opportunity to act discriminatorily occurs, La Pierre conducted what is now a seminal field study within the domain of social psychology (Dockery, 1989). Over a period of two years, La Pierre travelled with a young Chinese couple (man and wife) throughout the USA for varying lengths of time, recording their reception and experiences in 66 hotels, auto camps, and tourist homes, as well as 184 restaurants and cafes. Given that in 1934 the general American attitude toward people of Chinese descent was negative (Wu, 1972) La Pierre hypothesized that his companions' ethnicity would be sufficient to elicit prejudicial responding (discrimination). The results demonstrated that accommodation was easily secured by La Pierre's companions (La Pierre

remained absent during the initial contact) in all but one establishment, and the party were always treated courteously in all eating establishments. Indeed, La Pierre records that in 72 of these establishments they were treated with “more than ordinary consideration” (p. 232).

After a six month period had elapsed, LaPierre wrote to all of the visited establishments and a similar number of unvisited establishments in the same town/area requesting the completion of a questionnaire. Two questionnaires were used, one containing the item “Will you accept members of the Chinese race as guests in your establishment?” (p.233) embedded in an undisclosed number of filler items. In the second questionnaire the word “Chinese” was replaced with a different racial group (German, French, Japanese, Russian, Armenian, Jewish, Negroes, Italians, or Indians).

The results showed that of the 66 hotels, auto camps, and tourist homes visited, 91% of the returned questionnaires responded with a categorical ‘No’ when the racial group was identified as Chinese and 92% when a different racial group was identified. These findings were mirrored in hotels, auto camps, and tourist homes in the same towns/areas which were not visited, with 95% of the completed questionnaires responding ‘No’ to a Chinese person, and 92% responding ‘No’ to the other racial groups. Of the 184 visited restaurants and cafes, 93% of the completed questionnaires stated that they would refuse service to a Chinese person; and 92% responded ‘No’ to the other ethnic groups. Again, this is mirrored in the restaurants and cafes unvisited. When the person was identified as Chinese 76% of the completed responses stated ‘No’, and 91% stated that the person would not be served when the ethnic group was changed. Thus, La Pierre demonstrated that as predicted, the symbolic intention to discriminate (responses to questionnaires) contradicted actual behaviour.

Subsequent research establishing a relation between prejudice and discrimination is mixed. Some research indicates dissociation between the attitude of prejudice and discriminatory behaviour (Devine, 1989; Dovidio et al., 2002; Nosek, 2005; Plant & Devine,

1998), whereas other research indicates that high prejudice is predictive of high discriminatory behaviour (e.g., Dovidio, Brigham, Johnson, & Gaertner, 1996; Umphress, Simmons, Boswell, & Triana, 2008). At this point, an obvious question to address is why such disparity occurs. There is a large body of literature explaining the attitude-behaviour link by the processes of implicit and explicit cognitions (e.g., Devine, 1989; Gabriel, Banse, & Hug, 2007; Park, Glaser & Knowles, 2008; Plant & Devine, 1998). Brewer (2003) proposes that the negative mood congruence effects of implicit social judgements, when considered as “serving social (rather than cognitive) goals” (p. 389) may serve social inclusion needs. Moreover, Shaver and Mikulincer (2003) propose that attachment strategies that activate negative affect toward stigmatised groups may motivate implicit prejudice. Although my research does not intend to examine prejudice at an implicit level, or add to the implicit-explicit debate, implicit prejudice is argued to motivate discrimination (Quillan, 2006). Moreover, given that discrimination is the expression of prejudice, it is fair to surmise that mechanisms influencing prejudice may also influence discriminatory behaviour. I hope to extend research linking prejudice with attachment insecurity (Boag & Carnelley, 2010; Hofstra et al., 2005; Mikulincer & Shaver, 2001) by investigating the role of primed attachment security on discrimination.

#### **4.1.3. Self Reported vs. Behavioural Discrimination**

More than five decades ago Gordon Allport recognized a large disparity between an individual's self-reported behaviour toward outgroups, and their subsequent actions. As stated above, there is an abundance of prejudice literature examining this relation from an attitude-to-behaviour perspective (Devine, 1989; Dovidio et al., 2002; Nosek, 2005; Plant & Devine, 1998). Although clearly illustrating that the attitude of prejudice is frequently dissociated from discriminatory behaviour, there is barely any literature regarding the intention to act discriminatorily and actual discrimination. In view of the fact that attitudes

relate to internalized organizations of cognitions which influence how objects and/or situations are assessed, whilst intentions relate to the motivation to engage in planned behaviour (Schwartz et al., 2007), attitudes and intentions are clearly distinct concepts. Conceptually, whilst attitudes may link to behaviour via extraneous factors such as a motivation to appear non-prejudiced (Fazio et al., 1995; Plant & Devine, 1998), Schwartz et al.'s definition above clearly indicates a linear relation between intentions and genuine behaviour.

During an extensive examination of the discrimination literature, two themes became clear: (1) empirical foci tend to be limited to self-perceived discrimination, and (2) prejudice is a significant predictor of discrimination. In relation to the first theme, self-perceived discrimination associates with many negative outcomes including poor psychological and/or physical health (Gee, 2002), restricted access to employment (Rudolph, Wells, Weller, & Bates, 2009), reduced likelihood of being recommended as adoptive parents (Swami, Pietschnig, Stieger, Tovée, & Voracek, 2010), and less prosocial responding from non-marginalized groups (Swami et al., 2010). Additionally, self-perceived discrimination positively associates with high attachment anxiety (Mohr, 1999; Zakalik & Wei, 2006). Given that high attachment anxiety is characterized by hyperactivating strategies involving excessive attention to potential rejection, and given that discrimination is a means of "...limit[ing] or restrict[ing] access to privileges or resources by a minority group" (Stratton & Hayes, 1999, p. 79), a linear relation between attachment anxiety and perceived discrimination can be explained.

In regard to the second theme, high prejudice (explicit or implicit) predicts high behavioural discrimination toward marginalized groups (Dovidio, Brigham, Johnson, & Gaertner, 1996; Dovidio, Kawakami, Johnson, Johnson, & Howard, 1997). Moreover, correlates of high prejudice, such as social domination orientation (Pratto et al., 1994) predict

high discrimination against low-status group members (Umphress et al., 2008). Additionally, high prejudice is associated with high attachment avoidance (Boag & Carnelley, 2010; Di Pentima & Toni, 2009), and low prejudice is associated with attachment security (Boag & Carnelley, 2010; Mikulincer & Shaver, 2001). However, I can find no empirical evidence explicitly examining the relation between attachment and discrimination. Although Di Pentima and Toni (2009) demonstrate that attachment security associates with equalitarianism (characterized by the *lack* of discrimination toward outgroups), any link is supposition and to be treated with caution.

From the above literature review, one can tentatively hypothesize that attachment and discrimination may be linked. Although finding no research explicitly examining attachment variations in the relation between intentions to discriminate and-actual behaviour, there are two studies (that I can find) explicitly examining the relation between self-reported behavioural intention and discrimination. Silverman and Cochrane (1971) identified that a key failing in historical prejudice research (e.g., LaPierre, 1932) is that the situation presented to assess behavioural intentions, conflicts with the situation in which behaviour is assessed. For example, they argue that when behaviour was assessed LaPierre (a Caucasian American) was present, whilst the questionnaire only referred to how hotels/motels/restaurants etc. would respond toward cultural groups who were not American. Additionally, LaPierre's presence may well have influenced the behaviour of hotel and restaurant staff during his two year field study, leading to erroneous conclusions that the measures assessed the same phenomena.

As a means of testing whether there was a relationship between the intention to behave in a discriminatory manner, and actual behaviour Silverman and Cochrane (1971) assessed the responses of a community sample ( $N = 144$ ) that had, on two previous occasions, been given the opportunity to sign a petition supporting an open housing policy in their

residential neighbourhood. Of the larger sample, 43 homeowners (22 who had signed the petition, and 21 who had refused) agreed to participate in a study comparing the attitudes and values of an adult sample with a student sample. Participants were given a series of questionnaires assessing their attitude toward Black people, which included two key questions relating to behavioural intention: "*I would sign a petition supporting open housing*" and "*If actually selling my home, I would sell it to any financially qualified buyer, Negro or Caucasian.*" Five weeks later, all participants were approached by female students purportedly volunteering for an equal opportunities organization, and again asked to sign a petition supporting an open housing policy. The results showed that the self-reported intention to sign the petition significantly predicted actual behaviour (signing the petition), whereas the self-reported intention to sell their house to any qualified buyer did not. The authors concluded that the results clearly highlight that when a hypothesized situation and a real situation are consistent; intention to discriminate does predict actual discriminatory behaviour.

More recently, Loius, Duck, Terry, Schuller, and Lalonde (2007) reported on data collected as part of a larger study examining political views of Australians. Two hundred and six residents of Queensland, Australia participated, and comparison with census data showed the sample to be representative of the wider Australian population. Each participant was mailed a series of questionnaires at two time points, from which Louis et al. selected data relating to self-reported intention to support policies aimed at discriminating against asylum seekers in Australia (Time 1), and self-reported behaviours (voting and speaking out against asylum seekers) six weeks later. Consistent with the findings of Silverman and Cochraine (1971), the results demonstrated a clear link between the self-reported intentions to support discrimination toward asylum seekers and self-reported discriminatory actions (voting and speaking out against asylum seekers). Although these two studies provide key evidence that

self-reported intention to discriminate and discriminatory behaviour are congruent, neither study considers mechanisms underlying discrimination. In order to address this gap in the literature, and given the link between prejudice and attachment patterns described above, the first aim of the current study is to examine the causal role of attachment security on the intention to act with discrimination and subsequent discriminatory behaviour.

#### **4.1.4. Attachment, Discrimination, and Empathy**

A second aim is to consider the role that empathy may play on the relation between attachment pattern differences in behavioural intention and subsequent behaviour. Given that my research illustrates that empathy mediates the relation between attachment pattern (dispositional and primed) and prejudice (Chapters 2 and 3), is it possible to extend this finding? Will empathy also be a mechanism through which the relation between self-reported and actual discrimination can be explained?

As stated earlier (See Chapter 1) the link between high prejudice and low empathy is well established, and previously in this chapter I identify that research shows that high prejudice relates to high discriminatory behaviour. Within the discrimination literature I have not found it possible to identify an explicit link between empathy, intention to behave with/without discrimination and subsequent behaviour. However, there is limited research (Batson et al., 2002; Karacanta & Fitness, 2006) indicating that empathy may have an important role within this dynamic.

Batson et al. (2002) illustrated a positive relation between high empathy and willingness to help a stigmatized outgroup (drug addicts). Batson and his colleagues manipulated empathy using instructions to take the perspective of (or remain objective toward) a drug addict and convicted drug dealer who explicitly expresses the desire to change his life around. Measures of positive/negative attitude and willingness to donate local funds (of which the participants believed that they contributed via their student fees) to support a

local charity helping drug addicts to resolve their addiction were assessed after the empathy manipulation and reading of the vignette. The results illustrated that those in the high empathy condition reported higher willingness to donate money to the local charity than those in the low empathy condition. Moreover, high empathy predicted increased positivity toward drug addicts, and increased positivity mediated the relation between high empathy and increased willingness to support the charity. Thus, it can be suggested that people high in empathy (vs. those low in empathy) report less intention to behave discriminatorily. More recently Karacanta and Fitness (2006) illustrated that high dispositional empathy (perspective taking and empathic concern) predicted self-reported intention to behave without discrimination by allocating funds to a program designed to reduce violence toward gay men and lesbians in their local community. Notwithstanding, neither Batson et al. (2002) nor Karacanta and Fitness (2006) assessed actual behaviour. Thus, although indicating that empathy does relate to the intention to act discriminatorily, the assumption that empathy will also lead to variations in discriminatory behaviour is yet to be tested. Notwithstanding, given the research outlined above, it may be suggested that as with prejudice, empathy will mediate the relationship between attachment and discriminatory behaviour.

#### **4.1.5. Pilot Studies**

The current study extends the findings of Chapters 2 and 3 by assessing both self-reported and behavioural discrimination toward an outgroup person. However, rather than rely on the automatic activation of participants' stereotype via verbal or written information, the current experiment uses a photographic stimulus. Research shows that involuntary and differential activation of the amygdala occurs when visual stimuli of ingroup and outgroup people are presented (Hart et al., 2005). Moreover, the differential activation of the amygdala found by Hart et al. positively correlate with implicit evaluations of racial groups (Phelps et al., 2000). Given the link between unconscious neural processes and unconscious judgements

of outgroup members, and given that Macrae, Bodenhausen, Milne, Thorne, and Castelli (1997) showed that stereotypes are spontaneously activated when semantically processed, the use of a photographic stimuli was considered to be sufficient to stimulate discriminatory behaviour. In order to assess which stimulus would be most appropriate for use in the current study, I conducted a series of pilot studies.

#### **4.1.6. Pilot Study 1**

Although previously found to be a salient outgroup (See Chapter 2) Muslims were not automatically selected as the target group. Rather, a range of societal groups familiar to British university students (skinheads, Goths, Muslims, Chavs, Emos, and Hippies) were tested.

In order to determine negative and positive attitude toward each of the groups, 244 publically available copyright free images were obtained from the internet using Google Image search<sup>5</sup>, filtered as “labelled for re-use.” In order to determine stereotypical features of each group, two discussion meetings were conducted whilst accumulating images. For each group specific features were agreed on as indicating stereotypicality; skinheads (shaved/close cropped hair, tattoos, and white skinned), Goths (long hair, black eye make-up, and black clothes), Muslims (prayer cap (male)/scarf (female), beard (male), and mid-tone skin), Chavs (hooded top, close cropped hair (male)/side ponytail (female), and ‘chunky’ jewellery), Emos (spiky hair with long fringe, black eye make-up, and black clothes), and Hippies (long hair, colourful clothes, and headscarf). Each image was independently rated by four researchers involved in the current study (myself, two final year undergraduate students, and one research assistant) as stereotypical of each group. Twelve images (six males, six females) were agreed

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<sup>5</sup> Although there are a variety of students on campus, who could have been approached to have their photographs used as the stimulus, I chose to use photographs from the internet as stimuli. This was done in order to reduce the potential influence that acquaintances or friendships may have on the results; two phenomena known to reduce prejudicial responding (e.g., Allport, 1954/1979).

as meeting the predetermined criteria (neutral expression, perceived as aged between 18 and 25 years (similar to the undergraduate population), and reflective of the stereotypical features for each group,  $Kappa = .79, p < .01$ ).

A questionnaire was then created to assess positive and negative attitude to each group. Each page contained one black and white photographic image (12 x 14.5 cm) above the instruction "Using the following rating scale please indicate how much **you** experience each of the given emotional reactions in response to the **person in the image** by writing the score in the space provided. Thank you." Twenty-six adjectives (13 positive, 13 negative) were listed below the instructions. Positive adjectives ( $\alpha = .63$ ) included (wonder, compassion, interest, peaceful, respectful, and comfortable) and negative adjectives ( $\alpha = .84$ ) included (anxious, cautious, alarmed, threatened, vulnerable, and fearful). Participants rated their agreement or disagreement with each item on a 6-point scale ranging from 1 (strongly disagree) to 6 (strongly agree). Questionnaires were completed by 16 non-psychology undergraduate students (8 female, 8 male; age not recorded) known to the two final year undergraduate students working on the current study as a requirement of the degree course.

Participant ratings of each type of adjective (positive or negative) were combined into an overall positivity or negativity score. In order to rule out that participant gender influenced responding, a one-way Analysis of Variance was conducted on positivity and negativity scores. Results demonstrated no significant difference and participant gender was not investigated further. A paired t-test was conducted to assess the difference in positivity and negativity ratings for each social group.

Results (Table 7) demonstrated that skinheads and Muslims were rated significantly more negatively than positively, whereas Emos, Goths, and Hippies were rated significantly more positively than negatively. There was no significant difference in positive and negative ratings of Chavs. Given that the results indicate that skinheads and Muslims would be an

appropriate choice of target group, a second paired t-test was conducted to assess whether images of males or female skinheads or Muslims were rated as more negative. The results show that male skinheads ( $M = 4.30$ ,  $SD = .31$ ) were rated more negatively than female skinheads ( $M = 2.13$ ,  $SD = .76$ )  $t_{15} = -10.50$ ,  $p < .001$ ; similarly, male Muslims ( $M = 3.62$ ,  $SD = .62$ ) were rated more negatively than female Muslims ( $M = 2.48$ ,  $SD = 1.22$ )  $t_{15} = -3.17$ ,  $p < .01$ .

Table 7.

*Results of paired t-test comparing positivity and negativity toward each group*

Group		<i>M</i>	<i>SD</i>	<i>t</i>
Skinheads	Positivity	2.49	.46	
	Negativity	3.21	.39	-5.39***
Muslims	Positivity	2.41	.39	
	Negativity	3.02	.65	-3.59**
Goth	Positivity	2.82	.43	
	Negativity	1.88	.78	5.16***
Emo	Positivity	2.80	.42	
	Negativity	1.63	.55	10.14***
Hippie	Positivity	2.96	.39	
	Negativity	1.88	.82	5.26***
Chav	Positivity	2.55	.43	
	Negativity	2.69	.42	-.95

*Note.* \*\*  $p < .01$ , \*\*\*  $p < .001$ .

Overall, the results indicate that an image of a male skinhead or Muslim would be most appropriate for the main study. However, it was noted that two participants commented that the skinhead male in the image looked like a criminal. As stated previously (See Chapter 2) the use of criminals as an outgroup may not reflect personal prejudice, but rather reflect socially accepted dislike. Therefore, I conducted a second pilot study comparing attitudes

toward male skinheads and male Muslims as a means of determining which of these groups would be an appropriate choice for the target in the main study.

#### 4.1.7. Pilot Study 2

Using the same methods as in the previous pilot study to gain photographic images, the four researchers assessed and agreed on two images (a skinhead with a teardrop tattoo on his face, and a skinhead with a swastika tattoo on his neck) as being most reflective of the male skinhead stereotype and within the age range of typical undergraduate students (i.e., 18-25 years of age),  $Kappa = .73, p < .01$ . Of the 144 images of Muslim men, 58 appeared to be within the 18-25 age range. The majority (65.28%) were bearded (trimmed or untrimmed) of which 54.5% were wearing prayer caps. Therefore, three images for Muslims were selected in order to provide a range of images reflective of those available,  $Kappa = .82, p < .01$ ; one image with a trimmed beard, one with an untrimmed beard, and one with a trimmed beard and wearing a prayer cap.

As the main study involves a behavioural measure of discrimination, I was interested in assessing how comfortable or uncomfortable people would be if expecting to interact with each person in the photographs. Each page contained one black and white image (15 x 13.5 cm) below which was the instruction "Looking at the man in the photograph, please rate how much you would be comfortable interacting with this man." Eight types of behavioural interactions (talking, ignoring, having a close relationship with, if approached by, befriending, approaching, avoiding, and working with) were embedded in the sentence "How comfortable would you be ..... this person?" ( $\alpha = 90$ ). Participants rated their responses on a 6-point scale ranging from 1 (*extremely comfortable*) to 5 (*extremely uncomfortable*). Questionnaires were completed by 12 non-psychology undergraduate students (7 female, 5 male; age not recorded) known to the undergraduate students working on the current study.

Given that expressing comfort in ignoring or avoiding the person in the photograph is indicative of discomfort, ratings for these two items were reverse-scored prior to analysis. Ratings for each image were then combined into an overall discomfort score and the mean calculated.

Descriptives (Table 8) identified that the highest mean discomfort score was elicited by the Muslim with a prayer cap and trimmed beard and the Muslim with an untrimmed beard and no prayer cap the lowest discomfort score. A paired t-test was conducted to assess significant differences in discomfort between the images.

Table 8

*Descriptive statistics for each image (N = 12)*

	<i>M</i>	<i>SD</i>
Skinhead 1	2.69	.89
Skinhead 2	2.79	1.05
Muslim 1	3.29	.90
Muslim 2	2.53	.58
Muslim 3	3.51	.35

*Note.* Skinhead 1 = tattoo on face, Skinhead 2 = tattoo on neck, Muslim 1 = trimmed beard, no prayer cap, Muslim 2 = untrimmed beard, no prayer cap, Muslim 3 = trimmed beard and prayer cap.

Results demonstrated significant no significant difference in discomfort ratings between the two skinheads images, but did identify that the discomfort ratings toward the Muslim with a prayer cap and trimmed beard were significantly higher than those elicited by the skinhead with a teardrop tattoo on his face ( $t_{15} = 4.08, p < .01$ ) and the skinhead with a swastika tattoo on his neck ( $t_{15} = 3.60, p < .01$ ). Moreover, discomfort toward the Muslim with difference between four pair of images. The Muslim with a prayer cap and trimmed beard was rated as eliciting more discomfort than the Muslim with a trimmed beard and no prayer cap ( $t_{15} = 7.06, p < .001$ ). No difference emerged in discomfort ratings between the Muslims not wearing a prayer cap.

Therefore, it was determined that Muslims would be the appropriate target group to use in the main study. However, the mean value obtained although the highest toward the Muslim wearing the prayer cap, only just reached the midpoint of 3.5; therefore a third pilot study was conducted to test whether the image used was effectively arousing discomfort by comparing ratings with other images of Muslims.

#### 4.1.8. Pilot Study 3.

It was decided a priori that only images of Muslims with mid-tone skin, who were potentially aged between 18 and 25 years, and who fulfilled the search criterion of “British” would be selected. As with the previous two pilot studies, a Google image search was made using the keywords “British Muslim” and filtered as ‘labelled for reuse’. Of the 132 images, the four researchers involved in the current study agreed on eight images (four female, four male) which fulfilled the criteria. The selection included the male Muslim images used in the previous pilot study. A questionnaire was created to assess positive ( $\alpha = .79$ ) and negative ( $\alpha = .83$ ) emotional reactions toward the people in the images. At the top of each page was a black and white image (12 x 13cm) followed by the instruction “...please indicate how much **YOU** experience each of the given emotional reactions in response to the **person in the photograph** above. Please write your response in the space provided. Thank you.” Each participant rated their response on a 6-point scale ranging from 0 (*strongly disagree*) to 5 (*strongly agree*) to 18 adjectives (9 positive, 9 negative). Positive adjectives included ‘interested’, ‘compassionate’, ‘respectful’, and ‘comfortable’; negative adjectives included ‘anxious’, ‘cautious’, ‘threatened’, and ‘fearful’. Prior to analysis responses to the positive items were reverse-scored prior to all ratings being combined into an index of negativity.

Questionnaires were completed by 24 third year undergraduate students (18 female, 6 male, ages not recorded) in return for one research credit. Results showed that as in pilot study 1, male photographs ( $M = 2.27$ ,  $SD = .72$ ) were rated more negatively than females ( $M$

= 1.69,  $SD = .74$ )  $t_{24} = 4.33$ ,  $p < .001$ . The image of the male Muslim wearing a prayer cap used in pilot study 2 was rated the most negatively across all images ( $M = 2.68$ ,  $SD = .89$ ), particularly in response to the adjective 'cautious' ( $M = 3.33$ ,  $SD = 1.34$ ) and was the only value to score above the midpoint (2.5) for total negativity. Therefore, it was determined that this image would be used in the main study.

#### **4.1.9. Aim of the current study**

Continuing my previous research (Boag & Carnelley, 2010), I am interested in the influence of attachment on self-reported and actual discriminatory behaviour. The current study examines the influence of primed attachment style on self-reported discrimination intentions toward Muslims an outgroup identified in Chapter 2 to be salient to a student and general population. Additionally, the current study extends my previous research by assessing whether empathy is a mechanism that explains the relation between attachment and discrimination.

#### **4.1.10. Hypotheses**

I hypothesized that people primed with attachment security would report lower intention to discriminate (Hypothesis 1), and less behavioral discrimination toward Muslims (Hypothesis 2) than people in the neutral prime condition. Additionally, I hypothesized that people primed with attachment security would report higher empathy than those in the neutral prime condition (Hypothesis 3). Finally, I hypothesized that high empathy would mediate the relation between primed attachment security and low behavioural discrimination (Hypothesis 4).

## **4.2. Method**

### **4.2.1. Participants**

Participants were 82 students (86.6% female,  $M_{age} = 19.76$ ,  $SD = 1.46$ ). The majority self identified as White (91.5%), heterosexual (95.1%), not religious (62.2%), and were

determined to have a BMI within the 'normal' range (73.2%). The remainder self identified as Asian (1.2%), mixed race (4.9%), other unlisted race (2.4%), bisexual (2.4%), homosexual (2.4%), Christian (34.2%), Buddhist (1.2%), other unlisted religious group (2.4%), and were classified as underweight (4.9%), overweight (6.1%), and obese (1.2%) according to BMI calculations. No participant self identified as Muslim and one participant self identified as disabled. Participants were recruited from a British University and participation resulted in course credits.

#### **4.2.2. Excluded Data**

As the current study requires that the participants believe that they are taking part in research alongside a second participant who is identified as Muslim, it was decided to use a funnel debriefing method to probe for suspicion. Prior to being told the aims of the experiment, participants were asked to relate (a) what the experiment was investigating, (b) whether they believed that they would take part in the creative task, and most importantly (c) whether they believed that the person whose photograph was shown to them was a second participant. Six participants gave answers indicative that the answer to question (c) was 'No'. Therefore, data from those six participants was excluded from analysis.

#### **4.2.3. Measures**

**Priming Manipulation.** Attachment security was primed using a visualisation and writing task (adapted from Rowe & Carnelley, 2003). Participants were instructed to think about a close relationship indicative of attachment security (i.e., emotional closeness, comfort in dependency on partner, no fear of abandonment), and then asked to write about this relationship for 10 minutes. Participants in the neutral prime condition (Mikulincer & Shaver, 2001) visualised and wrote about a shopping trip to the supermarket for 10 minutes.

**Self-reported Intention to Discriminate.** Four items of self-reported discriminatory intention were used in which participants were forced to make a choice (for a new housemate) between an individual from a traditionally marginalised group, and an individual

from a traditionally more successful group (Maio, Bernard, & Luke, 1999). Following the results of the pilot studies associated with the current study the main focus of the current study is on discrimination toward Muslims. Therefore, three marginalised groups identified as not salient to our participant group an earlier pilot study (Chapter 2) acted as filler items. The following pairs of individuals were used in the forced choice decisions: “slim” person or “obese” person, “Gay/Lesbian/Bisexual” person or “heterosexual” person, “Disabled” person or “able bodied” person, and “Muslim” person or “non-Muslim” person. In each pair the non-discriminatory choice was coded as “0” and the discriminatory choice as “1”.

**Preference for Discrimination Choice.** Each item of self-reported discrimination was accompanied with a measure of preference (Maio et al., 1999). Each participant had to indicate on a 10-point scale ranging from 1 (*slightly*) to 100 (*very much*) how much they preferred the person that they had chosen. In order to conduct the analysis the demographics of each participant was compared to the marginalised group in each item. For both discrimination choice and preference for discrimination choice, participants who were members of the marginalized group were not included in the analysis of self-reported or behavioural discrimination. This is observed in the varying *N* in the analyses.

**Social desirability.** An 8-item shortened version of the Marlow-Crowne Social Desirability Scale (Ray, 1984) (overall  $\alpha = .69$ ) was used to assess the level of social desirability of participants. Participants indicated their responses to each statement by circling either ‘yes’, ‘no’, or ‘not sure.’ Items included: “*Have you sometimes taken unfair advantage of another person?*”

**Empathy.** Empathy was assessed using the same measures as in Chapter 3 ( $\alpha = .84$ ). Four items related to perspective taking ( $\alpha = .79$ ), four items related to empathic concern ( $\alpha = .77$ ) and four items related to personal distress ( $\alpha = .60$ ).

**Behavioural Discrimination.** As described below, I used Macrae, Bodenhausen, Milne, and Jetten's (1994) measure of behavioural discrimination; this was assessed as the distance between the Muslim participant's 'belongings' and the chair selected by the participant. Larger distances indicate higher discrimination.

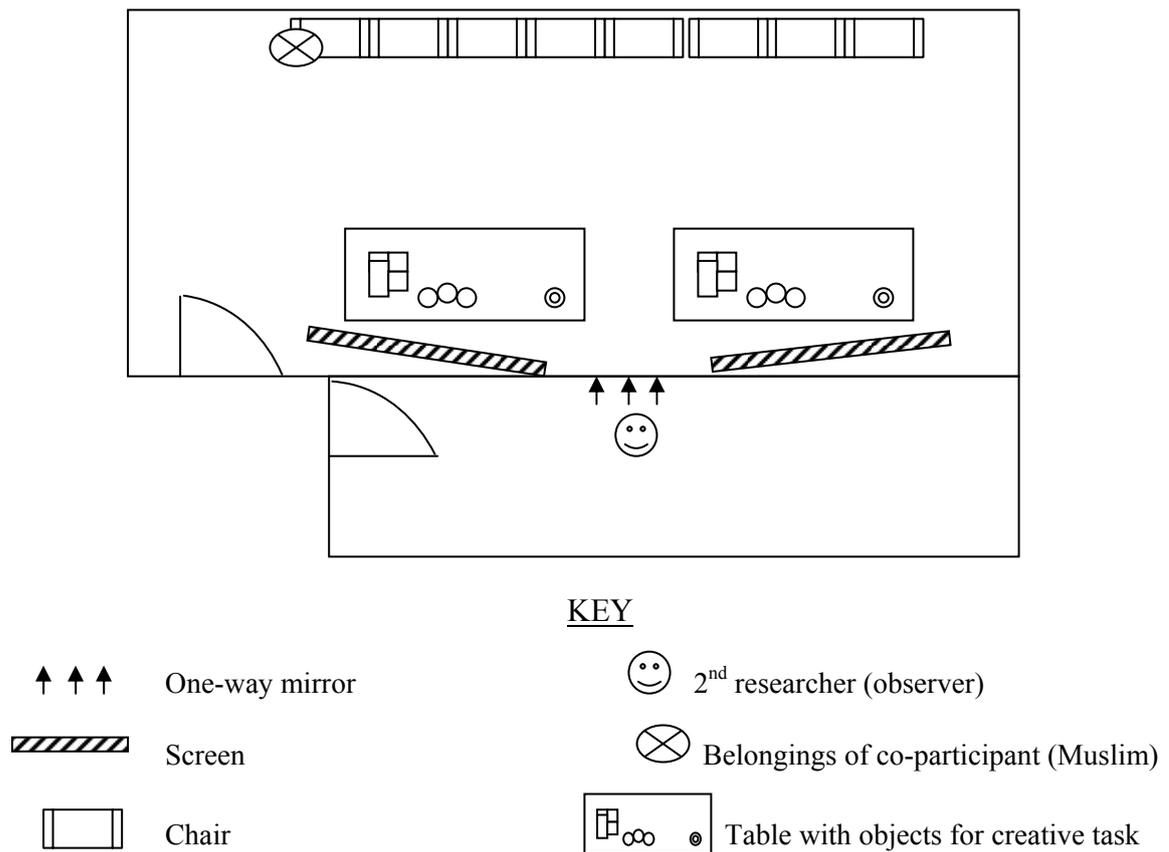
#### 4.2.4. Procedure

In a study allegedly measuring the role of familiarity with work colleagues on the ability to perform creative tasks, participants were informed that the study would take place in two locations: (i) a cubicle, and (ii) a larger laboratory in which they would complete the creative task ostensibly alongside (but not in competition with) a second participant from a separate school within the university. Participants were informed that the study involved the use of photographs as a means of fostering familiarity. Informed consent was obtained.

Participants completed demographics and then had their photograph taken using a digital camera with a viewing screen. Participants were informed that their photograph would be printed out and given to the second participant (and that they would be given a photograph of the second participant), in order to foster familiarization prior to the second part of the study. The photo was shown to them for their approval to be used. Participants were then primed with either a secure attachment or a neutral prime. Participants were asked to seal their prime-task writing in an envelope and were escorted to the laboratory. En route to the laboratory participants were given an A4 photographic image of a male Muslim aged approximately 22 years. Participants were informed that the photo was of the participant that they would be working with in the lab and asked to familiarize themselves with his face; this took approximately two minutes.

On arriving at the laboratory (staged similarly to Macrae et al.'s, 1994 study; see Figure 4) participants were informed that the second participant had obviously 'popped out'. On entering the laboratory, participants saw a row of eight empty chairs. On the first chair the

belongings of the co-participant (black jacket, scarf, an open hold all containing folders with 'Business Studies' written in Arabic, and a Business Studies textbook) were arranged as if the co-participant had been seated there. Opposite the chairs were two tables each with materials (paper, stapler, sellotape, plastic cups, and pens) for the creative task.



*Figure 6.*

#### Laboratory Layout for Part 2 of the Study

Participants were asked to sit and complete a questionnaire (self-report discrimination and social desirability measures) and the researcher left the room. A second researcher observed where the participant sat via a one-way mirror and recorded the distance in number of chairs. After three minutes, the researcher returned to the laboratory and ended the experiment. During a verbal funnel debrief, the researcher probed for suspicion that the male Muslim in the photograph was not a co-participant. Participants were asked (a) the

experiment's aims, (b) the credibility of the creative task, and (c) the belief that the person in the photograph was a second participant. Six participants suspected that the Muslim in the photograph was not a second participant, and their data were excluded from analysis. Each participant was fully debriefed and informed that deception was used and the reason for it during the experiment. Participants were encouraged to ask questions, thanked for their participation, and awarded course credits.

### 4.3. Results

#### 4.3.1. Preliminary Data Analysis

The written visualizations for each participant were assessed using a text analysis program (Weft QDA, version 1.0.1). A manipulation check of the secure prime condition was conducted using keywords (comfort, support, care, safe, love) from Luke, Carnelley, and Sedikides' (2008) felt security measure and shown to correspond with 98% of participants' descriptions. All neutral prime descriptions referred to a shopping trip, thus the manipulations were shown to be successful and no data were excluded. No outliers emerged and all variables were found to be normally distributed.

#### 4.3.2. Effects of Prime on Empathy

Table 9.

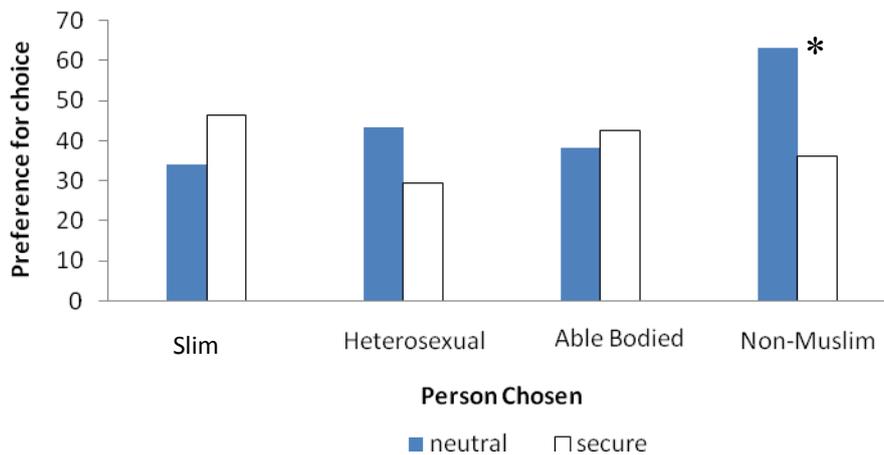
*Effect of Prime on Empathy*

	Prime				<i>F</i>
	Secure		Neutral		
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Perspective Taking	2.17	.79	2.38	.70	.02
Empathic Concern	3.60	1.02	3.80	.98	.81
Personal Distress	4.90	.64	4.88	.74	1.56

Results of a one-way ANOVA (Table 9) showed that although all mean values are above the midpoint, and Levene statistics show that equal variances can be assumed. However, there were no differences in subscale empathy by prime condition, therefore Hypothesis 3 is rejected, and as I was unable to test whether empathy mediated the relation between primed security and low discrimination Hypothesis 4 is also not supported.

#### 4.3.3. Effects of Prime on Intention to Discriminate

Results of a Chi-square analysis showed that there was no significant prime effect on choice for an obese housemate  $X^2(2, N = 88) = 1.05, p = .31$ , a GLB housemate  $X^2(2, N = 88) = 3.06, p = .08$ , or a disabled housemate  $X^2(2, N = 88) = 1.05, p = .31$ . However, only two participants chose a Muslim housemate and no prime effects on the choice of a Muslim housemate emerged  $X^2(2, N = 88) = .00, p = 1.00$ , which was contrary to my expectations. Notwithstanding, a significant effect of prime occurred when I examined participants' preference for their choice.

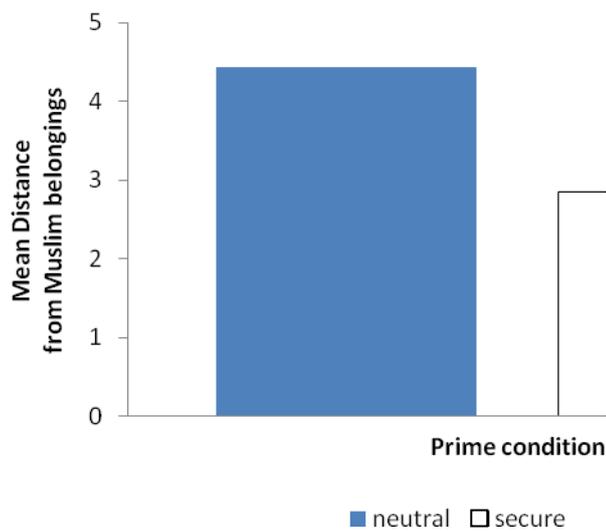


Note. \*  $p < .05$ .

Figure 7.

Effect of Prime on Self-reported Discrimination to Potential Housemate

A one-way Analysis of Variance (ANOVA) (Figure 5) showed that the prime did not influence of the- other groups, but compared to those in the neutral prime condition, participants primed with attachment security reported significantly lower preference for their discriminatory choice toward the Muslim person  $F(1, 81) = 14.31, p < .01$ , supporting Hypothesis 1. In addition, as expected, the prime did not influence discrimination choice or preference toward the non-target groups (all  $ps > .10$ ).



Note. \*  $p < .05$ .

Figure 8.

Effect of Prime on Behavioral Discrimination (Distance from Muslim)

Furthermore, supporting Hypothesis 2, compared to people in the neutral prime condition, people primed with attachment security chose to sit significantly closer to the Muslim participant's chair (Figure 6),  $F(1,87) = 31.16, p < .001$ . This finding indicates that fostering attachment security leads to less preference for a discriminatory choices and decreases behavioural discrimination toward Muslims.

#### 4.3.4. Social Desirability

In order to assess the potential for socially desirable responding to be influencing the results a between groups ANCOVA was conducted with prime condition entered as the independent variable, distance as the dependent variable, and social desirability as the covariate. Results showed that social desirability did not affect self-reported preference ( $F(1, 87) = .001, p = .98$ ), and prime remained a significant predictor of self-reported preference, ( $F(1, 87) = 14.04, p < .001$ ), showing that participants primed with security ( $M = 36.03, SD = 37.24$ ) reported less preference for their discrimination choice than neutral primed ( $M = 63.05, SD = 27.07$ ) participants. A second ANCOVA was conducted with prime condition entered as the independent variable, distance as the dependent variable, and social desirability as the covariate. Results showed that social desirability did not affect behavioural discrimination,  $F(1,87) = .37, p = .54$ . Furthermore, prime still significantly predicted behavioural discrimination,  $F(1,87) = 31.24, p < .001$ ; those primed with security ( $M = 2.85, SD = 1.31$ ) demonstrated less discrimination than those primed neutrally ( $M = 4.44, SD = 1.28$ ). Therefore the effect of primed security on lower self-reported preference for discrimination toward a Muslim housemate and behavioural discrimination were not due to socially desirable responding.

#### 4.3.5. Association between Discrimination Measures

Correlations (Table 10) illustrate that people who reported high self-reported preference to discriminate against the Muslim housemate also displayed high behavioural discrimination ( $r = .29, p < .001$ ). This suggests that people who indicate a preference to discriminate against Muslims will actually discriminate when an interaction with a Muslim person is expected.

Table 10.

*Correlations between Empathy, Discrimination, and Social Desirability*

	1	2	3	4	5	6
1. Perspective Taking	--					
2. Empathic Concern	.91**	--				
3. Personal Distress	.82**	.33*	--			
4. Disc. Muslim	-.10	.03	-.11	--		
5. Distance	.14	-.06	.20	-.11	--	
6. Social Desirability	-.00	-.12	.05	-.03	-.01	--

Note. \*\*  $p < .001$ , \*  $p < .05$ . Disc. = Discrimination toward.

#### 4.4. Discussion

The first aim of the current study was to examine the influence of primed attachment security (vs. a neutral prime) on self-reported discrimination choice and preference for that choice, as well as behavioural discrimination toward a Muslim person. As hypothesized, priming attachment security (compared to a neutral prime) led to reduced self-reported preference for discriminating against a Muslim and reduced behavioural discrimination toward Muslims. As research demonstrates that attachment security relates to low self-reported prejudice (Boag & Carnelley, 2010; Mikulincer & Shaver, 2001) this finding provides evidence that prejudice and discrimination *can* follow the same pattern.

Furthermore, I found that high self-reported discrimination against Muslims was associated with higher behavioural discrimination toward Muslims. This provides support for previous research demonstrating that behaviour can be predicted by attitudes towards marginalized groups (Dovidio et al., 1996; Umphress et al., 2008), however I did not assess prejudiced attitude, so this interpretation is speculative.

As all suspicious participants' data were removed prior to analyses, it is fair to assume that the remaining participants were not influenced by the belief that the study investigated

prejudice or discrimination. Additionally, the self-reported discrimination assessment occurred after the participant had already made his or her seat choice (behavioural discrimination), thus any observation that discrimination was being assessed would not have influenced behaviour. Given that Franz, Cuddy, Burnett, Ray, and Hart. (2004) identify that people are motivated to respond in non-prejudiced ways if they believe that they are taking part in a prejudice study, this an important factor to rule out.

The second aim of the current study was to examine whether empathy, shown in Chapters 2 and 3 to mediate between attachment patterns and prejudice, is also a mechanism that explains the relation between attachment and discrimination. However, inconsistent with predictions no differences emerged on empathy scores by prime condition. Given that previously I have found a relation between attachment avoidance (dispositional and primed) and low empathy, and primed attachment security and high empathy, this finding is somewhat surprising. However, it is possible that attachment avoidance is far more influential than attachment security in the indirect relations shown in Chapters 2 and 3 than previously suspected. Specifically, it is possible that the effects of priming attachment avoidance reduce empathy to levels so low that when compared to the effects of primed attachment security (vs. a neutral prime) on empathy, lead to the false impression that attachment security *increases* empathy when in actuality it does not. However, this explanation is merely speculation, and should be tested in future research before any conclusions can be drawn.

Moreover, finding that there was no difference in level of empathy according by prime condition, may have been influenced by the visualizations in the neutral (shopping) condition. Analysis of the neutral visualizations using a text analysis program (Weft QDA, version 1.0.1) identified that 21% of the neutral visualizations participants described a shopping trip with a friend, 23.3% with their mum, 7% with their boyfriend, and 16.3% with a housemate or flat mate. However, when the analysis is repeated without these data, the

results do not change, indicating that the high levels of empathy in the neutral condition were not affected by reports of shopping with close others. Notwithstanding, future research could reexamine the influence of primed attachment security (vs. a neutral prime) on empathy by rewording the instructions given in the neutral condition. For example, explicitly stating that the neutral event (shopping) refers to an occasion when the participant was alone, or only shopping for him or herself. Although speculative, using more explicit instructions should clarify whether attachment security (vs. a neutral prime) does or does not influence empathy.

The findings of the current study show that attachment security is linked to lower discriminatory decisions and discriminatory behaviour toward Muslims. Thus, increasing attachment security through enhancing parental sensitivity and responsiveness may in turn foster low discrimination in one's offspring. As previously discussed (See Chapter 1) the development of attachment security in infancy also leads to increased tolerance toward others, and I have demonstrated in the current study that attachment security leads to reduced intention to behave with discrimination and subsequent discriminatory behaviour. Future research should concentrate on assessing the impact of training new parents to consistently respond with sensitivity to their infants needs on discriminatory intentions and behaviours longitudinally.

Bowlby (1998) proposed that attachment patterns are adaptive and malleable. Indeed, research demonstrates that individuals with insecure attachment patterns can develop a secure attachment pattern (e.g., Crowell, Treboux, & Waters, 2002). Positive interpersonal experiences (i.e., high marital satisfaction, partner support during pregnancy and early motherhood) can challenge existing negative beliefs and relationship expectations in anxious- and avoidant-attached individuals, leading to the development of attachment security (e.g., Crowell et al., 2002; Simpson, Rholes, Campbell, & Wilson, 2003). Additionally, research (Rowe & Carnelley, 2003) demonstrates that the repeated activation of a secure-base

(priming) leads to participants demonstrating characteristics of a secure individual (i.e., positive self-views and relationship expectations) over time. Given this research secure-base priming may be used within existing intervention techniques aimed at reducing prejudice and discrimination. This should be tested in future research.

Additionally, my findings provide evidence that prejudice and discrimination *can* follow the same pattern. Attachment security relates to low self-reported prejudice in past research (Boag & Carnelley, 2010), and to self-reported preference to discriminate and low behavioural discrimination in the present study. Future research should now concentrate on examining psychological mechanisms that explain the relationship between attachment security and low discrimination. One mechanism repeatedly shown to influence discrimination is the Motivation to Control Prejudiced Responses (MCPR, Plant & Devine, 1998). The motivation to control prejudice is an unconscious mechanism guiding an individual's outward display of discrimination toward marginalized groups (Fazio et al., 1995), even if that individual is highly prejudiced toward marginalized groups. Given previous research linking attachment avoidance and high prejudice (See Chapters 2 and 3; Hofstra et al., 2005; van Oudenhoven & Hofstra, 2005), and given that a high motivation to control prejudice responding associates with low prejudice (Akrami & Ekehammar, 2005), future research should examine whether people who are low in attachment avoidance are more motivated to control prejudice than their high avoidant counterparts. This hypothesis should be empirically tested to extend understanding of mediators of the relation between attachment patterns and prejudice, and in turn provide key information that can guide interventions to reduce prejudice

This research is not without limitations. The sample in the current study was mostly white undergraduate students with a mean age of 20. It may not be possible to generalize the findings to a wider population. Research should replicate these findings in samples that have

more negative attitudes toward Muslims to determine whether security priming is as effective when mean levels of prejudice and discrimination are higher than in the present sample.

In the current study I identify that primed attachment security (vs. neutral prime) is not only related to lower preference for the choice to discriminate against Muslims, but that primed attachment security predicts non-discriminatory behaviour. Although only providing a starting point from which research should extend, I provide valuable evidence that discriminatory preference and behaviour can be predicted by attachment security. In turn, this implies that intervention techniques can utilise attachment theory as a means of reducing discrimination toward marginalized groups in society.

## 5. CHAPTER FIVE

### 5.1. General Discussion

*“Too small is our world to allow discrimination, bigotry and intolerance to thrive in any corner of it...”*

Eliot Engel

As highlighted in Chapter 1, humankind possesses an innately social nature, and dependency on the development and maintenance of close interpersonal ties with others is undoubtedly responsible for the success of humankind (Allport, 1954/1979; Bowlby, 1997; Diener & Seligman, 2002). Bowlby’s (1997) theory of attachment identifies and explains the importance of early relationship experiences on psychological wellbeing and the development of emotional and psychological skills requisite for functional and successful interpersonal relationships throughout the lifespan (Collins et al., 2004; Collins & Read, 1990).

Notwithstanding, prejudice is one of the greatest contributors to the demise of harmonious intergroup and interpersonal relations (Allport, 1954/1979). Prejudice precludes the development of tolerance of diversity and fosters ingroup cohesion at the expense of cultural and/or ethnic outgroups (Allport, 1954/1979). Furthermore, prejudice toward marginalised or stigmatised group members remains a significant social problem despite legislation aimed to prevent it (Vala, 2009). However, not all people are prejudiced and close cross-cultural or inter-ethnic relationships successfully function in a modern multicultural society. Thus, I aimed in this thesis to examine whether empathy is a mechanism that may explain why such variation exists. Moreover, I discussed how my findings have implications for future prejudice reduction interventions.

A crucial mechanism within the relation between variation in attachment patterns and prejudice is empathy. People who are securely-attached report the lowest levels of prejudice toward outgroup members (Hofstra et al., 2005; Mikulincer & Shaver, 2001; van Oudenhoven & Buunk, 2006) and also have the highest levels of empathy (e.g., Britton &

Feundeling, 2005; Joireman et al., 2002; Pederson et al., Rowe & Mohr, 2007). On the other hand, people who are avoidant-attached report the highest levels of prejudice and have the lowest empathy scores compared to either secure-attached or anxious-attached individuals.

### **5.1.1. Attachment and Empathy**

In line with previous findings (e.g., Britton & Feundeling, 2005; Rowe & Mohr, 2007) attachment avoidance (dispositional and primed) consistently predicted low empathy (See Chapters 2 and 3). Moreover, I demonstrate that the relation between primed attachment avoidance and low empathy is driven by a single empathy subscale; empathic concern (See Chapter 3). In addition, I identified that attachment security (dispositional and primed) consistently predicted high empathy (See Chapters 2 and 3), and at a subscale level primed attachment security predicted high empathic concern and high perspective taking (See Chapter 3). Given the attachment histories of an avoidant-attached and a secure-attached individual differ in their degree of experiences conducive to developing empathic skills, individual differences in empathic skills were predictable. Indeed, I determined that the difference between primed attachment avoidance and primed attachment security is explained by perspective taking and empathic concern, but not personal distress (see Chapter 3). However, it emerged that dispositional attachment avoidance negatively correlated with trait empathy, but was unrelated to empathy specifically toward Muslims (See Chapter 2). The lack of a relation between empathy measures may indicate the specificity of the role of empathy subscales in the attachment avoidance-empathy dynamic. Speculatively, given that attachment avoidance predicts low empathic concern (See Chapter 3) the low levels of trait empathy may decrease further when an avoidant individual is asked to consider how empathic they feel toward Muslims as their discomfort in expressing other-oriented emotions may suppress *any* empathic responding.

The relation between attachment anxiety and empathy is inconsistent, with some authors identifying a positive relation (e.g., Britton & Feundeling, 2005; Trusty et al., 2005) and others identifying no relation (e.g., Rowe & Mohr, 2007). Although consistent with Rowe and Mohr (2007) I found no relation between dispositional attachment anxiety and empathy in Chapter 2, in Chapter 3 my findings demonstrated that consistent with Mikulincer and Shaver (2005) attachment anxiety was significantly predictive of high personal distress. Given that the attachment history of an anxious-attached individual results in hyperactivating strategies to reduce self-oriented negative affect, the finding that empathic responding is self- rather than other-oriented, leads one to speculate that for attachment-anxious individuals, empathy in its truest sense is not experienced. However, high personal distress alone is not sufficient to explain the difference between primed attachment anxiety and primed attachment avoidance in responding (See Chapter 3). Indeed, perspective taking, empathic concern, *and* personal distress are all mediators (see Chapter 3). Although perspective taking and empathic concern are arguably ‘other-oriented’ processes, this finding does not necessitate the rejection of my recent statement that ‘true’ empathy is not experienced by anxious individuals. Rather, compared to avoidant individuals’ anxious individuals may use perspective taking and empathic concern to increase personal distress, thus provide additional focus on their own feelings in empathy inducing situations.

### **5.1.2. Attachment and Prejudice**

Consistent with previous research (Hofstra et al., 2005; Mikulincer & Shaver, 2001; van Oudenhoven & Buunk, 2006) and my predictions, my research (See Chapters 2 and 3) demonstrates that high attachment avoidance (dispositional and primed) predicts high prejudice toward Muslims, and primed attachment security predicts low prejudice toward Muslims. Additionally, the relations between attachment avoidance and security to prejudice

were mirrored in relations to SDO, a predictor of prejudice. However, attachment anxiety (dispositional or primed) was unrelated to prejudice and SDO.

The attachment history of an avoidant-attached individual leads to the development of a negative model of others and the use of deactivating strategies aimed to decrease reliance on others. Speculatively, expressing prejudice may serve to confirm independence from mainstream norms whilst also operating as a distancing strategy. Alternatively, the attachment history of a securely-attached individual leads to a positive model of others that is expressed in openness to new experiences with others. Given that the willingness to foster relationships with novel others is not conducive to experiencing prejudice, one can speculate that for attachment secure individuals prejudice is unlikely. For attachment anxiety however, the picture is less clear. I found no relation between attachment anxiety and prejudice. Although an attachment history of inconsistent care giving experiences lead to the development of a negative model of self, only fearful individuals (high anxiety and high avoidance) develop a negative model of others (Bartholomew & Horowitz, 1991). However, an individual high in attachment anxiety utilises hyperactivating strategies aimed to increase proximity and dependence on others, opposing the deactivating strategies of a highly avoidant individual. Thus speculatively one can propose that for fearful individuals the influence of a negative model of others, which should predict prejudice, may be negated by an overwhelming desire to decrease negative self-concepts by seeking approval and attention from others. In turn, it is possible that an anxiously-attached individual will merely imitate the prejudices of their attachment figures, and have little motivation to develop any personal feelings regarding marginalised groups. The hypotheses outlined above are, however, speculative and should be tested in future research.

### 5.1.3. Empathy and Prejudice

Batson & Ahmad (2009) identified that empathy is a tool by which prejudice may be reduced. Specifically, they examined current intervention methods and identified four types of empathy which may be involved in reducing prejudice. First, Batson and Ahmad proposed a conceptual framework showing that empathy could be experienced in one of two ways; (i) imagining how one would feel in another's situation, and (ii) imagining how another is thinking and feeling. Next, Batson and Ahmad identify that one of two empathic responses can occur: (i) emotion matching, and (ii) empathic concern. Emotion matching refers to feeling the same set of emotions as another person, whereas empathic concern refers to feeling emotions *toward* another person. Although proposed as four distinct 'states' of empathy, Batson and Ahmad do identify that emotion matching can result from either imagining another's plight from one's own perspective or from the other person's perspective, whereas empathic concern only occurs when one uses an imagine-other perspective. The distinction between empathic 'states' is an important addition to psychological understanding of how and why intervention methods to reduce prejudice vary in success.

Throughout my thesis I have confirmed previous research (e.g., Bäckström & Björkund, 2007; Batson et al., 2002; Davis, 1983; Esses & Dovidio, 2002; Finlay & Stephan, 2000; Pederson et al., 2004) by demonstrating that high trait and subscale empathy predicts low prejudice. Moreover, my research demonstrates that if an individual experiences high empathy toward a named group (Muslims) prejudice toward that group is low. In contrast, my findings demonstrate that low trait empathy predicts high prejudice toward Muslims. As stated previously, one could speculate that individuals low in trait empathy may be unwilling or unable to experience empathy toward Muslims. However, this is speculation and should be assessed in future research.

#### 5.1.4. Attachment, Empathy, and Prejudice

Within my thesis I have demonstrated that empathy is a crucial mechanism by which the relation between attachment patterns and prejudice can be explained. I have demonstrated that low empathy mediates the relation between high attachment avoidance (dispositional and primed) and high prejudice toward Muslims, and high empathy mediates the relation between primed attachment security and low prejudice toward Muslims (See Chapters 2 and 3). Moreover, I have extended the findings described above to identify the specificity of the role of empathy within this model by identifying that the relation between primed attachment avoidance (compared to primed security) and high prejudice is explained by low empathic concern.

The results of my own research identifies that people high in attachment avoidance are highly prejudiced because of their *lack* of empathic concern for another. Given that the characteristics of an attachment-avoidant person include strategies that actively distance them from others, it is clear that imagining how another is thinking and feeling is an unlikely response when faced with a person in need. However, as proposed earlier, prejudice should be reduced *if* empathic concern can be increased in people with an avoidant attachment pattern.

Increasing empathic concern in an individual whose attachment history has led to the acquisition of strategies that avoid emotional involvement with others may not be an easy task. Indeed, any attempts to do so may well be viewed negatively. However, this may be addressed. As demonstrated by Carnelley and Rowe (2007) the repeated priming of attachment security reduces attachment avoidance and increases attachment security over time. Although only assessed over a period of two and a half weeks, it is possible to speculate that the continued priming of attachment security could, in time, lead to the development of a secure attachment pattern in avoidant individuals. Moreover, by replacing an avoidant pattern

with a secure one would increase the likelihood that empathic concern could emerge, or be learned via empathy training. This is a direction for future research.

### **5.1.5. Attachment, Empathy, and Discrimination**

My final study aimed to assess whether empathy would also mediate the relation between attachment security and the expression of prejudice (discrimination). My results confirmed that as hypothesized, primed attachment security (vs. a neutral prime) predicted low self-reported intention to act with discrimination *and* subsequent low discriminatory behaviour.

Given the lack of research examining the relation between attachment and discrimination, finding a linear relation between primed attachment security and low discrimination (hypothetical intention and actual behaviour) is an important addition to the discrimination literature. Moreover, the current findings mirror those of my previous research demonstrating that attachment security is predictive of low prejudice toward Muslims. Speculatively, one could suggest that any reduction in prejudice due to increasing attachment security *may also* reduce the intention to behave discriminatorily and actual discrimination toward Muslims. However, this is speculative and is a direction for future research.

However, I was unable to show that empathy played any role in the relation between primed attachment security and discrimination. My previous research clearly demonstrates a relation between attachment security (primed and dispositional) and high empathy. Given that discrimination is the behavioural expression of prejudice (Allport, 1954/1979), the failure to demonstrate the role of empathy in the relation between primed attachment security and low discrimination was surprising. However, there was no significant difference in empathy scores by prime condition, and all participants scored above the midpoint for empathy. One could speculate that my sample consisted of highly empathic individuals, and any effects of priming attachment security on increasing empathy were nullified. Alternatively, one could

speculate that the neutral prime visualisation, which elicited many visualisations involving close others, was insufficient to retard empathic responding. However, these interpretations are only supposition and require further examination in future research.

#### **5.1.6. Implications and Future Directions**

Throughout this thesis I have speculated that increasing attachment security via parenting-skills training or interventions will serve to increase empathy and in turn reduce prejudice. Currently, interventions aimed at increasing parenting skills in the UK primarily focus on teaching parents how to cope with children already labelled as ‘challenging’ (behaviourally or educationally) or children with learning disabilities (Orchard, 2007).

The Department for Children, Schools, and Families (DCSF) currently funds multidisciplinary intervention programmes (e.g., *Parenting Early Intervention Pathfinder* programme) aimed at increasing parenting skills in families where children are identified as *at risk* (i.e., early impulsiveness or aggression, substance misuse, parental offending, parental mental health difficulties, etc.) by children’s and/or adult services (i.e., schools, health providers, Social Services) (Department for Education, 2010).

Training is tailored to the educational, physical, and cultural needs of the parent and involves individual and group-based activities within a community setting. For example, the parents of an aggressive child are taught skills that develop composed responding to antagonistic situations (i.e., speaking calmly and quietly, gentle questioning about why the child is being aggressive, facilitating resolution). Research (e.g., Lindsay et al., 2008) demonstrates that parenting interventions are endorsed by schools as a means of addressing anti-social behaviour. Notwithstanding, interventions require that the parent is willing to attend the programmes, so the success of interventions aimed at parents may not be as effective as the government reports.

Recent public and media interest has recently highlighted the role that curriculum-based parenting-skills training may play in reducing teenage pregnancies (Garner, 2009). Indeed the National Curriculum in English schools includes compulsory Personal Health and Social Education (PHSE) aimed at addressing parenting issues at Key stage 4 (pupils aged 14-16). The content of the parenting component of PHSE classes include teaching students about the “role and responsibilities of a parent, and the qualities of good parenting and its value to family life” (Department for Education and Employment, 1999). Students take part in practical activities, write reports and discuss issues such as teenage pregnancy and abortion. Although varying, practical activities may include a visit to a mother and baby clinic, a field trip to price the items needed for a newborn baby, and taking part in a ‘designer baby’ exercise (personalising an egg, being responsible for its care 24 hours a day for a week, and writing a report about the experience).

Although useful experiences to deter teenage pregnancy, I cannot infer that the current PHSE content will develop the parental sensitivity and responsiveness skills required to foster attachment security when adolescents become parents. Thus, to my knowledge there are currently no methods of teaching adolescents or adults *how* to be responsive and sensitive parents *before* they enter parenthood. My findings provide valuable evidence that the curriculum would be enhanced by including content intentionally teaching parental sensitivity and responsiveness skills to adolescents. This could be implemented in the first year of Key stage 4 (14 – 15 years) by teaching students about the importance of parental reflective functioning and mind mindedness in developing stable cognitive, social, and emotional skills in children. Through watching documentaries about parenting and open discussion of appropriate vs. inappropriate parenting practices, students can apply their knowledge to ‘real’ parenting situations. By inviting visiting speakers to discuss parenting skills (i.e., health visitors, child psychologists), students will consolidate and extend their understanding. Via

audio or documentary clips of infant crying patterns students could learn to distinguish between an infant's needs (i.e., hunger, comfort, pain, etc.) and an infant's demands (i.e., fretfulness). By discussing how to respond appropriately to an infant, students' confidence and comfort in providing a secure-base for others will be fostered. Group activities could also be used (e.g., designing information leaflets for new parents, presenting information about parenting skills, etc.). Thus, in the first year students would learn the importance of sensitive and responsive childcare *and* develop skills conducive to becoming sensitive and responsive parents.

In the second year of Key stage 4 (15 - 16 years) students could learn about the implications of poor parenting. For example, watching a documentary about the work of Harry Harlow with rhesus monkey infants, and being introduced to and discussing isolated children. Students could also investigate and discuss how issues associated with experiences of poor parenting can be resolved across the lifespan. Exposing students to the concept that experiences of poor sensitivity and responsiveness *can* be resolved, will foster understanding that human relationships are open to change, whilst allowing them the opportunity to identify how to be sensitive and responsive parents and consolidate confidence in their own parenting skills, adding empathy and tolerance toward others as outcomes. Notwithstanding, my suggestions for curriculum additions are speculative and would require extensive field testing as a means of determining their usefulness as an intervention technique.

The implementation of such training is not limited to pre-parent individuals. New parents would also benefit from the activities outlined above. During training, opportunities to increase self-esteem and confidence in providing sensitive and responsive parenting to their infants would encourage the development of a secure attachment relationship between parents and infants. For parents of adolescents, similar training could also be applied, but rather than merely training the parent, the adolescent could also be taught positive parenting

skills. The parent and adolescent would attend the training together and work as a pair, thereby fostering a shared learning experience which in turn should also encourage the development of a closer relationship. Moreover, both adolescents and their parents should be encouraged to discuss their relationship openly and honestly, identifying problems and (with the assistance of the trainer) develop strategies to resolve negative issues. Discussing and resolving relationship problems, and acquiring sensitivity and responsive care giving skills, should foster feelings of felt-security between the adolescent and the parent. By developing positive parenting skills in both parents and adolescents, it is possible that empathic skills and tolerance of others will increase.

Moreover, implementing the aforementioned training with any individual who works with or has prolonged contact with children could lead to increased encouragement of tolerance. By providing reflective functioning and mind-mindedness experiences with the child, and by encouraging the child to develop these skills, the child will learn to view others as independent individuals with desires, beliefs, and motivations that may differ from their own and develop a functional theory of mind. Sensitive and responsive care giving will provide children the opportunity to develop a sense of felt-security with the care provider, develop empathic skills such as perspective taking and empathic concern, which in turn foster increased tolerance toward others. Additionally, the development of secure relationships within school, crèche, hospital, institutions, etc., may reduce children's behavioural problems. For example, exposing a 'challenging' child to sensitive and responsive care, and providing the opportunity to develop reflective and mind-mindedness skills may serve two functions: (i) the child will learn that his or her needs will be met, and (ii) the child will develop an understanding that others do not automatically *know* why the child is behaving badly. In turn, the child will learn to communicate his or her needs more effectively and negative behaviour should decrease. Moreover, fostering the aforementioned skills within

child-oriented institutions may also increase the formation and maintenance of positive attitudes in teachers, health providers (mental and physical), and caregivers *and* students, patients, and clients. Future research should test these hypotheses.

### **5.1.7. Strengths and Limitations**

My research has many strengths. First and foremost my research is the first to identify the role of empathy in the relation between attachment and prejudice. This finding serves to extend previous literature *and* combine previously distinct fields of research, and has meaningful implications for prejudice intervention techniques, as well as educational and social policy. Additionally, my research is the first (to my knowledge) to explicitly examine and demonstrate the role of attachment security on the intention to behave discriminatorily and subsequent discriminatory behaviour. The finding that attachment security leads to low discriminatory intention *and* low discriminatory behaviour extends previous literature identifying the role of attachment security in reducing prejudice (Mikulincer & Shaver, 2001).

Moreover, by conducting separate pilot studies prior to each piece of research, I was able to identify a target group of prejudice that was salient to my sample population. Therefore, unlike other research (e.g., Hofstra et al., 2005; Mikulincer & Shaver, 2001; van Oudenhoven & Buunk, 2006) that uses traditional target groups of prejudice (i.e., immigrants, Israeli Arabs) my research assesses prejudice toward a target group identified by my sample population. Thus I can be confident that my findings reflect prejudice that is really experienced.

Notwithstanding, my research is not without limitations. First, the samples used throughout are mostly white, female undergraduate students with a mean age of approximately 21. Research (Davis, 1983; Karacanta & Fitness, 2006) demonstrates that females express more empathy than males. Moreover, Karacanta and Fitness (2006)

determine that females' higher responding is specific to the subscales of empathic concern and personal distress. Moreover, although attachment theory does not predict gender differences in the expression of attachment-related needs, Bartholomew and Horowitz (1991) demonstrate that gender differences emerge in attachment insecurity. Males are more likely to be classified as dismissing, whereas females are more likely to be classified as fearful. Combined, these findings indicate that with a more gender equal sample, my findings would be strengthened. Additionally, given that the sample was primarily undergraduate students, the results may not be generalisable to a wider population. Indeed, I would predict that with an older community sample, with more life-experience or stronger political views (Lau & Redlawsk, 2008) or national affiliation (Huddy & Khatib, 2007), that the pattern results would remain consistent, but increase in intensity.

Another limitation is that although I obtained a sample using the internet my results are based primarily on a Western sample (UK and North America). It is likely that my results may differ if a cross-cultural sample including non-Muslim participants from each continent were used. One key issue is that the target of prejudice may have to be altered. In Europe, prejudice toward Muslims is common (Strabac & Listhaug, 2008; Zick & Küper, 2009), however in Muslim countries (i.e., Afghanistan, Egypt, Pakistan, etc.), although I can find no empirical evidence of prevalence of prejudice toward Muslims, common sense dictates that it would be unusual. Thus, with a cross-cultural sample, I would predict that Muslims may not be a salient target group, although this would need to be tested in future research.

Additionally, it is understood that although the prevalence of secure attachment as the majority attachment pattern is universal (van IJzendoorn & Sagi, 1999), variations in the prevalence of attachment insecurity emerge; with higher rates of anxious-attachment in Japan (Takahashi, 1990; van IJzendoorn & Kroonenberg, 1988) and higher rates of avoidant-attachment in Germany (Grossman & Grossman, 1991; van IJzendoorn & Kroonenberg,

1988). Notwithstanding, given that priming attachment patterns is a well validated method of activating attachment-related cognitions, I would predict that my research findings would not be altered with a cross-cultural sample. Nonetheless, this hypothesis should be examined in future research.

#### **5.1.8. Conclusions**

The research within this thesis is the first to identify the role of empathy in the relation between attachment avoidance and high prejudice toward Muslims. Moreover, my research provides specificity as to which aspect of empathy is the key component through which prejudice can be reduced in attachment-avoidant individuals. Furthermore, my research is the first to demonstrate that priming attachment security decreases self-reported and behavioural discrimination toward Muslims. Additionally, my research is the first to combine previous literatures within the domains of attachment, prejudice, discrimination, and empathy as a means of examining the continuance of prejudice in contemporary society. In sum, my findings make valuable contributions to social psychological understanding of why variations in prejudice toward Muslims exist, and provide evidence that have important implications in future interventions aimed to reduce prejudice.

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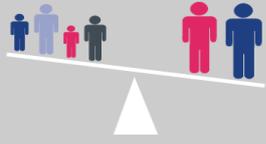
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## Appendix A

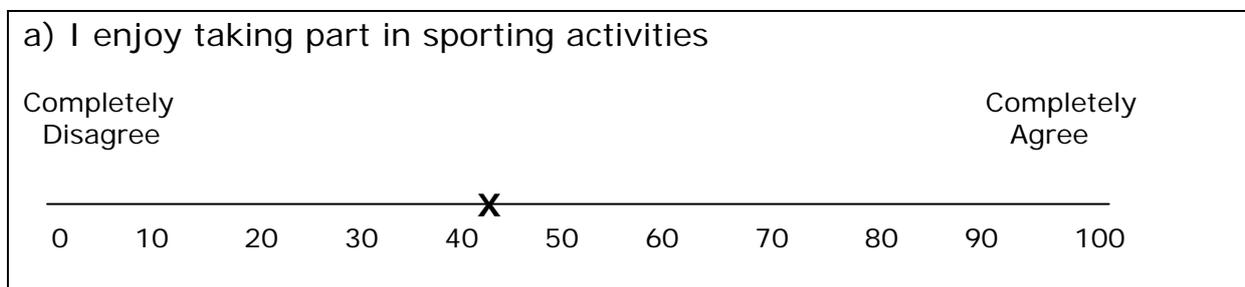


# Society of Social Media Studies

Partnered with the Association of Social Policy Research group (ASPR – UK)

Research has repeatedly illustrated the importance of media report on public perceptions of social issues (e.g., Cohen et al., 2004). In order to further our understanding of such reports, it is important to conduct annual surveys regarding contemporary social issues that are reported in the media.

We request that you complete the following feeling thermometer by indicating on each scale how much you agree or disagree with the preceding statement. An example is given below:

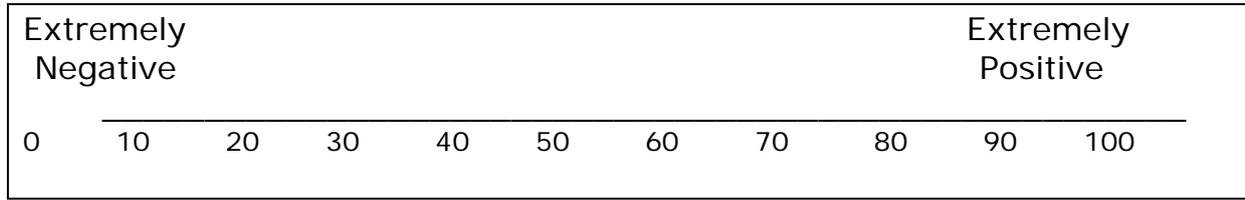


Completion of the following survey will be considered as your consent to participate in the 2007/2008 study. Your participation is voluntary and you may withdraw your participation at any time. If you choose not to participate there will be no consequences to your grade or to your treatment as a student in the psychology department.

Please turn the page to begin the survey



Using the following scale, please indicate in the box provided your immediate response to the following social issues.



*n.b. (The use of the word 'my' below relates to **your** responses, rather than your assessment of others' responses).*

- |  |  |
|--|--|
| My feelings about reptiles as pets   |  |
| My feelings about Asian immigrants (including Indian Asian)                  |  |
| My perception of charity groups: (e.g. Oxfam, Red Cross)                     |  |
| My feelings towards babies   |  |
| My feelings towards Eastern European immigrants                              |  |
| My attitude toward traditional authority figures (e.g., the police, doctors) |  |
| My thoughts about fellow football supporters                                 |  |
| My feelings about African immigrants   |  |
| My attitude toward having people from the opposite sex as 'best' friends     |  |
| My perception of older adults (> 70 years of age)                            |  |
| My perception of 'Chavs'   |  |
| My memories of holidays at home  |  |
| My attitude towards sexual offenders   |  |
| My attitude towards violent criminals  |  |
| My attitude towards criminals who commit fraud                               |  |
| My feelings regarding extremist Muslims                                      |  |
| My feelings about 'pop' music's "Top 40"                                     |  |
| My feelings regarding fundamentalist Christians                              |  |
| My feelings about gardening  |  |
| My feelings about Afro-Caribbean immigrants                                  |  |
| My attitude toward alcoholic binge drinking                                  |  |
| My feelings about entertaining friends                                       |  |
| My feelings regarding Jehovah's Witnesses                                    |  |

My attitude towards socialising (e.g., clubbing etc)

My feelings about those who are able to work but choose to remain on benefits

My perception of obese people

My feelings about non-fundamentalist Christians

My feelings towards my university

My feelings regarding Mormons

My perception of daytime television

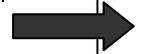
My feelings about CCTV cameras in town centres

My feelings towards following fashion trends

My feelings towards non-extremist Muslims

My memories of holidays abroad

Please turn the page

**Thank you for your participation**

Please return the completed questionnaire to the researcher

**Appendix B**

Instructions: The following statements concern how you feel in romantic relationships. We are interested in how you generally experience relationships, not just in what is happening in a current relationship. If you are not currently in a relationship, please relate the questions to your last romantic relationship.

Respond to each statement by indicating how much you agree or disagree with it.

[Response scale: 1 = strongly disagree to 7 = strongly agree]

1. I prefer not to show a partner how I feel deep down.

Strongly Disagree	Somewhat Disagree	Slightly Disagree	Neutral	Slightly Agree	Somewhat Agree	Strongly Agree
1	2	3	4	5	6	7

2. I worry about being abandoned.

Strongly Disagree	Somewhat Disagree	Slightly Disagree	Neutral	Slightly Agree	Somewhat Agree	Strongly Agree
1	2	3	4	5	6	7

3. I am very comfortable being close to romantic partners.

Strongly Disagree	Somewhat Disagree	Slightly Disagree	Neutral	Slightly Agree	Somewhat Agree	Strongly Agree
1	2	3	4	5	6	7

4. I worry a lot about my relationships.

Strongly Disagree	Somewhat Disagree	Slightly Disagree	Neutral	Slightly Agree	Somewhat Agree	Strongly Agree
1	2	3	4	5	6	7

5. Just when my partner starts to get close to me I find myself pulling away.

Strongly Disagree	Somewhat Disagree	Slightly Disagree	Neutral	Slightly Agree	Somewhat Agree	Strongly Agree
1	2	3	4	5	6	7

6. I worry that romantic partners won't care about me as much as I care about them.

Strongly Disagree	Somewhat Disagree	Slightly Disagree	Neutral	Slightly Agree	Somewhat Agree	Strongly Agree
1	2	3	4	5	6	7

7. I get uncomfortable when a romantic partner wants to be very close.

Strongly Disagree	Somewhat Disagree	Slightly Disagree	Neutral	Slightly Agree	Somewhat Agree	Strongly Agree
1	2	3	4	5	6	7

8. I worry a fair amount about losing my partner.

Strongly Disagree	Somewhat Disagree	Slightly Disagree	Neutral	Slightly Agree	Somewhat Agree	Strongly Agree
1	2	3	4	5	6	7

9. I don't feel comfortable opening up to romantic partners.

Strongly Disagree	Somewhat Disagree	Slightly Disagree	Neutral	Slightly Agree	Somewhat Agree	Strongly Agree
1	2	3	4	5	6	7

10. I often wish that my partner's feelings for me were as strong as my feelings for him/her.

Strongly Disagree	Somewhat Disagree	Slightly Disagree	Neutral	Slightly Agree	Somewhat Agree	Strongly Agree
1	2	3	4	5	6	7

11. I want to get close to my partner, but I keep pulling back.

Strongly Disagree	Somewhat Disagree	Slightly Disagree	Neutral	Slightly Agree	Somewhat Agree	Strongly Agree
1	2	3	4	5	6	7

12. I often want to merge completely with romantic partners, and this sometimes scares them away.

Strongly Disagree	Somewhat Disagree	Slightly Disagree	Neutral	Slightly Agree	Somewhat Agree	Strongly Agree
1	2	3	4	5	6	7

13. I am nervous when partners get too close to me.

Strongly Disagree	Somewhat Disagree	Slightly Disagree	Neutral	Slightly Agree	Somewhat Agree	Strongly Agree
1	2	3	4	5	6	7

14. I worry about being alone.

Strongly	Somewhat	Slightly	Neutral	Slightly	Somewhat	Strongly
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Disagree 1	Disagree 2	Disagree 3	4	Agree 5	Agree 6	Agree 7
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15. I feel comfortable sharing my private thoughts and feelings with my partner.

Strongly Disagree 1	Somewhat Disagree 2	Slightly Disagree 3	Neutral 4	Slightly Agree 5	Somewhat Agree 6	Strongly Agree 7
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16. My desire to be very close sometimes scares people away.

Strongly Disagree 1	Somewhat Disagree 2	Slightly Disagree 3	Neutral 4	Slightly Agree 5	Somewhat Agree 6	Strongly Agree 7
---------------------------	---------------------------	---------------------------	--------------	------------------------	------------------------	------------------------

17. I try to avoid getting too close to my partner.

Strongly Disagree 1	Somewhat Disagree 2	Slightly Disagree 3	Neutral 4	Slightly Agree 5	Somewhat Agree 6	Strongly Agree 7
---------------------------	---------------------------	---------------------------	--------------	------------------------	------------------------	------------------------

18. I need a lot of reassurance that I am loved by my partner.

Strongly Disagree 1	Somewhat Disagree 2	Slightly Disagree 3	Neutral 4	Slightly Agree 5	Somewhat Agree 6	Strongly Agree 7
---------------------------	---------------------------	---------------------------	--------------	------------------------	------------------------	------------------------

19. I find it relatively easy to get close to my partner.

Strongly Disagree 1	Somewhat Disagree 2	Slightly Disagree 3	Neutral 4	Slightly Agree 5	Somewhat Agree 6	Strongly Agree 7
---------------------------	---------------------------	---------------------------	--------------	------------------------	------------------------	------------------------

20. Sometimes I feel that I force my partners to show more feeling, more commitment.

Strongly Disagree 1	Somewhat Disagree 2	Slightly Disagree 3	Neutral 4	Slightly Agree 5	Somewhat Agree 6	Strongly Agree 7
---------------------------	---------------------------	---------------------------	--------------	------------------------	------------------------	------------------------

21. I find it difficult to allow myself to depend on romantic partners.

Strongly Disagree 1	Somewhat Disagree 2	Slightly Disagree 3	Neutral 4	Slightly Agree 5	Somewhat Agree 6	Strongly Agree 7
---------------------------	---------------------------	---------------------------	--------------	------------------------	------------------------	------------------------

22. I do not often worry about being abandoned.

Strongly Disagree 1	Somewhat Disagree 2	Slightly Disagree 3	Neutral 4	Slightly Agree 5	Somewhat Agree 6	Strongly Agree 7
---------------------------	---------------------------	---------------------------	--------------	------------------------	------------------------	------------------------

23. I prefer not to be too close to romantic partners.

Strongly Disagree 1	Somewhat Disagree 2	Slightly Disagree 3	Neutral 4	Slightly Agree 5	Somewhat Agree 6	Strongly Agree 7
---------------------------	---------------------------	---------------------------	--------------	------------------------	------------------------	------------------------

24. If I can't get my partner to show interest in me, I get upset or angry.

Strongly Disagree 1	Somewhat Disagree 2	Slightly Disagree 3	Neutral 4	Slightly Agree 5	Somewhat Agree 6	Strongly Agree 7
---------------------------	---------------------------	---------------------------	--------------	------------------------	------------------------	------------------------

25. I tell my partner just about everything.

Strongly Disagree 1	Somewhat Disagree 2	Slightly Disagree 3	Neutral 4	Slightly Agree 5	Somewhat Agree 6	Strongly Agree 7
---------------------------	---------------------------	---------------------------	--------------	------------------------	------------------------	------------------------

26. I find that my partner(s) don't want to get as close as I would like.

Strongly Disagree 1	Somewhat Disagree 2	Slightly Disagree 3	Neutral 4	Slightly Agree 5	Somewhat Agree 6	Strongly Agree 7
---------------------------	---------------------------	---------------------------	--------------	------------------------	------------------------	------------------------

27. I usually discuss my problems and concerns with my partner.

Strongly Disagree 1	Somewhat Disagree 2	Slightly Disagree 3	Neutral 4	Slightly Agree 5	Somewhat Agree 6	Strongly Agree 7
---------------------------	---------------------------	---------------------------	--------------	------------------------	------------------------	------------------------

28. When I'm not involved in a relationship, I feel somewhat anxious and insecure.

Strongly Disagree 1	Somewhat Disagree 2	Slightly Disagree 3	Neutral 4	Slightly Agree 5	Somewhat Agree 6	Strongly Agree 7
---------------------------	---------------------------	---------------------------	--------------	------------------------	------------------------	------------------------

29. I feel comfortable depending on romantic partners.

Strongly Disagree 1	Somewhat Disagree 2	Slightly Disagree 3	Neutral 4	Slightly Agree 5	Somewhat Agree 6	Strongly Agree 7
---------------------------	---------------------------	---------------------------	--------------	------------------------	------------------------	------------------------

30. I get frustrated when my partner is not around as much as I would like.

Strongly Disagree 1	Somewhat Disagree 2	Slightly Disagree 3	Neutral 4	Slightly Agree 5	Somewhat Agree 6	Strongly Agree 7
---------------------------	---------------------------	---------------------------	--------------	------------------------	------------------------	------------------------

31. I don't mind asking romantic partners for comfort, advice, or help.

Strongly Disagree 1	Somewhat Disagree 2	Slightly Disagree 3	Neutral 4	Slightly Agree 5	Somewhat Agree 6	Strongly Agree 7
---------------------------	---------------------------	---------------------------	--------------	------------------------	------------------------	------------------------

32. I get frustrated if romantic partners are not available when I need them.

Strongly Disagree 1	Somewhat Disagree 2	Slightly Disagree 3	Neutral 4	Slightly Agree 5	Somewhat Agree 6	Strongly Agree 7
---------------------------	---------------------------	---------------------------	--------------	------------------------	------------------------	------------------------

33. It helps to turn to my romantic partner in times of need.

Strongly Disagree 1	Somewhat Disagree 2	Slightly Disagree 3	Neutral 4	Slightly Agree 5	Somewhat Agree 6	Strongly Agree 7
---------------------------	---------------------------	---------------------------	--------------	------------------------	------------------------	------------------------

34. When romantic partners disapprove of me, I feel really bad about myself.

Strongly Disagree 1	Somewhat Disagree 2	Slightly Disagree 3	Neutral 4	Slightly Agree 5	Somewhat Agree 6	Strongly Agree 7
---------------------------	---------------------------	---------------------------	--------------	------------------------	------------------------	------------------------

35. I turn to my partner for many things, including comfort and reassurance.

Strongly Disagree 1	Somewhat Disagree 2	Slightly Disagree 3	Neutral 4	Slightly Agree 5	Somewhat Agree 6	Strongly Agree 7
---------------------------	---------------------------	---------------------------	--------------	------------------------	------------------------	------------------------

36. I resent it when my partner spends time away from me.

Strongly Disagree 1	Somewhat Disagree 2	Slightly Disagree 3	Neutral 4	Slightly Agree 5	Somewhat Agree 6	Strongly Agree 7
---------------------------	---------------------------	---------------------------	--------------	------------------------	------------------------	------------------------

## Appendix C

### Your Feelings about Others

Below is a list of statements. Please read each statement *carefully* and rate how strongly you agree or disagree with it by circling your answer. There are no right or wrong answers, or trick questions.

1. I am good at predicting how someone will feel.

strongly disagree	slightly disagree	slightly agree	strongly agree
-------------------	-------------------	----------------	----------------

2. I am quick to spot when someone in a group is feeling awkward or uncomfortable.

strongly disagree	slightly disagree	slightly agree	strongly agree
-------------------	-------------------	----------------	----------------

3. I can sense if I am intruding, even if the other person does not tell me.

strongly disagree	slightly disagree	slightly agree	strongly agree
-------------------	-------------------	----------------	----------------

4. I can tune into how someone else feels rapidly and intuitively.

strongly disagree	slightly disagree	slightly agree	strongly agree
-------------------	-------------------	----------------	----------------

5. I can easily work out what another person might want to talk about

strongly disagree	slightly disagree	slightly agree	strongly agree
-------------------	-------------------	----------------	----------------

6. I find it difficult to explain to others things that I understand easily, when they do not understand it the first time.

strongly disagree	slightly disagree	slightly agree	strongly agree
-------------------	-------------------	----------------	----------------

7. I find it hard to know what to do in a social situation.

strongly disagree	slightly disagree	slightly agree	strongly agree
-------------------	-------------------	----------------	----------------

8. Friendships and relationships are just too difficult, so I tend not to bother with them.

strongly disagree	slightly disagree	slightly agree	strongly agree
-------------------	-------------------	----------------	----------------

9. I often find it difficult to judge if something is rude or polite.

strongly disagree	slightly disagree	slightly agree	strongly agree
-------------------	-------------------	----------------	----------------

10. I do not tend to find social situations confusing.

strongly disagree	slightly disagree	slightly agree	strongly agree
-------------------	-------------------	----------------	----------------

11. I really enjoy caring for other people.

strongly disagree	slightly disagree	slightly agree	strongly agree
-------------------	-------------------	----------------	----------------

12. If I say something that someone else is offended by, I think that is their problem, not mine.

strongly disagree	slightly disagree	slightly agree	strongly agree
-------------------	-------------------	----------------	----------------

13. Seeing people cry does not really upset me.

strongly disagree	slightly disagree	slightly agree	strongly agree
-------------------	-------------------	----------------	----------------

14. I usually stay emotionally detached when watching a film.

strongly disagree	slightly disagree	slightly agree	strongly agree
-------------------	-------------------	----------------	----------------

15. I tend to get emotionally involved with a friend's problems.

strongly disagree	slightly disagree	slightly agree	strongly agree
-------------------	-------------------	----------------	----------------

**Appendix D****About Others**

Please write the number that best represents your feelings about the items below using the following 6-point rating scale.

1	2	3	4	5
not at all				extremely

**Thinking about Muslims makes me feel ...**

Sympathetic \_\_\_\_\_

Moved \_\_\_\_\_

Compassionate \_\_\_\_\_

Tender \_\_\_\_\_

Warm \_\_\_\_\_

Soft-hearted \_\_\_\_\_

## Appendix E

### About Others

**Directions:** Please indicate to what extent you agree or disagree with each of the following statements as they pertain to Muslims:

	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
In general, I have positive attitudes about Muslims						
I respect Muslims						
I like Muslims						
I feel positively toward Muslims						
I am at ease around Muslims						
I am comfortable when I hang out with Muslims						
I feel like I can be myself around Muslims						
I feel a sense of belonging with Muslims						
I feel a kinship with Muslims						
I would like to be more like Muslims						
I am truly interested in understanding the points of view of Muslims						
I am motivated to get to know Muslim people better.						
To enrich my life, I would try and make more friends who are Muslims						
I am interested in hearing about the experiences of Muslims						
I am impressed by Muslims						
I feel inspired by Muslims						
I am enthusiastic about Muslims						

**Appendix F****About You**

Please **circle** the appropriate response below each of the following statement. Please be **honest** when responding, no judgement will be made of you at any time.

1. Have there been occasions when you took advantage of someone?

YES NO NOT SURE

2. Have you sometimes taken unfair advantage of another person?

YES NO NOT SURE

3. Are you always willing to admit when you make a mistake?

YES NO NOT SURE

4. Are you quick to admit making a mistake?

YES NO NOT SURE

5. Do you sometimes try to get even rather than forgive and forget?

YES NO NOT SURE

6. Do you sometimes feel resentful when you don't get your own way?

YES NO NOT SURE

7. Are you always courteous, even to people who are disagreeable?

YES NO NOT SURE

8. Are you always a good listener, no matter whom you are talking to?

YES NO NOT SURE

Appendix G

SGS

# Social Groups Survey

## June - August 2009

DEMOGRAPHICS

1. Gender (please circle one)

[*Male / Female*]

2. Age \_\_\_\_\_

3. Sexual orientation (please circle one)

[*Gay Lesbian Bisexual Heterosexual*]

4. Please identify your ethnicity from the following options (please circle one)

a) **Black or Black British**

Caribbean

African

Any other Black background within (a)

b) **White**

British

Irish

European other than UK

Other (please state) \_\_\_\_\_

c) **Asian or Asian British**

Indian

Pakistani

Bangladeshi

Any other Asian background within (b)

d) **Mixed**

White & Black Caribbean

White & Black African

White & Asian

Any other mixed background

e) **Other ethnic groups**

Chinese

Japanese

Any other ethnic group (please state) \_\_\_\_\_

5. Please select your religious affiliation (please circle one)

Christian Protestant

Christian Catholic

Jewish

Sikh Muslim

Mormon

Buddhist

Hindu

Other

Not religious



SECTION ONE

Please use the space below each group of people to write **at least five words** that you associate with that group. There is no limit to the number of words you can write.

For example for the group:

**HIPPIES**

Long-haired	Flowers	Musical
Peaceful	Glastonbury	Dreadlocks
	Freedom	

-----

1. IMMIGRANTS

2. STUDENTS



3. GOTHS

4. CHAVS

5. THE DISABLED

6. SKINHEADS



7. THE OBESE

8. MUSLIMS



SECTION TWO

Please indicate on the rating scale how much you experience the feeling expressed in each statement. For example:

How **ENLIGHTENED** do you feel by Hippies?

Not at all	slightly	moderately	very	extremely
1	2	3	4	5

-----

How **THREATENED** do you feel by immigrants?

Not at all	slightly	moderately	very	extremely
1	2	3	4	5

How **THREATENED** do you feel by students?

Not at all	slightly	moderately	very	extremely
1	2	3	4	5

How **THREATENED** do you feel by Goths?

Not at all	slightly	moderately	very	extremely
1	2	3	4	5

How **THREATENED** do you feel by Chavs?

Not at all	slightly	moderately	very	extremely
1	2	3	4	5

How **THREATENED** do you feel by the disabled?

Not at all	slightly	moderately	very	extremely
1	2	3	4	5

How **THREATENED** do you feel by skinheads?

Not at all	slightly	moderately	very	extremely
1	2	3	4	5

How **THREATENED** do you feel by the obese?

Not at all	slightly	moderately	very	extremely
1	2	3	4	5

How **THREATENED** do you feel by Muslims?

Not at all	slightly	moderately	very	extremely
1	2	3	4	5

How **ACCEPTED** do you feel by immigrants?

Not at all	slightly	moderately	very	extremely
1	2	3	4	5

How **ACCEPTED** do you feel by students?

Not at all	slightly	moderately	very	extremely
1	2	3	4	5

How **ACCEPTED** do you feel by Goths?

Not at all	slightly	moderately	very	extremely
1	2	3	4	5

How **ACCEPTED** do you feel by Chavs?

Not at all	slightly	moderately	very	extremely
1	2	3	4	5

How **ACCEPTED** do you feel by the disabled?

Not at all	slightly	moderately	very	extremely
1	2	3	4	5

How **ACCEPTED** do you feel by skinheads?

Not at all	slightly	moderately	very	extremely
1	2	3	4	5

How **ACCEPTED** do you feel by the obese?

Not at all	slightly	moderately	very	extremely
1	2	3	4	5



How **ACCEPTED** do you feel by Muslims?

Not at all	slightly	moderately	very	extremely
1	2	3	4	5

How **SCARED** do you feel by immigrants?

Not at all	slightly	moderately	very	extremely
1	2	3	4	5

How **SCARED** do you feel by students?

Not at all	slightly	moderately	very	extremely
1	2	3	4	5

How **SCARED** do you feel by Goths?

Not at all	slightly	moderately	very	extremely
1	2	3	4	5

How **SCARED** do you feel by Chavs?

Not at all	slightly	moderately	very	extremely
1	2	3	4	5

How **SCARED** do you feel by the disabled?

Not at all	slightly	moderately	very	extremely
1	2	3	4	5

How **SCARED** do you feel by skinheads?

Not at all	slightly	moderately	very	extremely
1	2	3	4	5

How **SCARED** do you feel by the obese?

Not at all	slightly	moderately	very	extremely
1	2	3	4	5

How **SCARED** do you feel by Muslims?

Not at all	slightly	moderately	very	extremely
1	2	3	4	5



SECTION THREE

Please indicate on the rating scale your HONEST feeling towards each group.

For example: To what extent do the activities of hippies fall **outside the law**?

Not at all					Extremely
1	2	3	4	5	

-----

To what extent do the activities of immigrants fall **outside the law**?

Not at all					Extremely
1	2	3	4	5	

To what extent do the activities of students fall **outside the law**?

Not at all					Extremely
1	2	3	4	5	

To what extent do the activities of Goths fall **outside the law**?

Not at all					Extremely
1	2	3	4	5	

To what extent do the activities of Chavs fall **outside the law**?

Not at all					Extremely
1	2	3	4	5	

To what extent do the activities of the disabled fall **outside the law**?

Not at all					Extremely
1	2	3	4	5	



To what extent do the activities of skinheads fall **outside the law**?

Not at all Extremely  
\_\_\_\_\_

1 2 3 4 5

To what extent do the activities of the obese fall **outside the law**?

Not at all Extremely  
\_\_\_\_\_

1 2 3 4 5

To what extent do the activities of Muslims fall **outside the law**?

Not at all Extremely  
\_\_\_\_\_

1 2 3 4 5

**Thank you for completing this survey.**

## Appendix H

### Visualization Task

We now want you to complete a visualization task.

Please think about a relationship you have had in which you have found that it was relatively easy to get close to the other person and you felt comfortable depending on the other person. In this relationship you didn't often worry about being abandoned by the other person and you didn't worry about the other person getting too close to you. It is crucial that the nominated relationship is (or was) important and meaningful to you.

Now, take a moment and try to get a visual image in your mind of this person. What does this person look like? What is it like being with this person? You may want to remember a time when you were actually with this person. What would he or she say to you? What would you say in return? What does this person mean to you? How did you feel when you were with this person? How would you feel if this person was here with you now?

Please jot down your thoughts in the space provided. You will have 8 minutes to complete this task. The computer will let you know when the 8 minutes are up. If you finish before the 8 minutes are up, please continue to think about the relationship and write down anything else that comes to mind about the relationship.

1. What is the nature of the relationship (e.g., romantic partner, ex-boyfriend/ex-girlfriend, friend, parent)?
2. How long have you known this person? Please indicate in years and (if applicable) months.

## Appendix I

### Visualization Task

We now want you to complete a visualisation task.

Please think about a relationship you have had in which you have found that you were somewhat uncomfortable being too close to the other person. In this relationship you found it was difficult to trust the other person completely and it was difficult to allow yourself to depend on the other person. In this relationship you felt yourself getting nervous when the other person tried to get too close to you and you felt that the other person wanted to be more intimate than you felt comfortable being. It is crucial that the nominated relationship is (or was) important and meaningful to you.

Now, take a moment and try to get a visual image in your mind of this person. What does this person look like? What is it like being with this person? You may want to remember a time when you were actually with this person. What would he or she say to you? What would you say in return? What does this person mean to you? How did you feel when you were with this person? How would you feel if this person was here with you now?

Please jot down your thoughts in the space provided. You will have 8 minutes to complete this task. The computer will let you know when the 8 minutes are up. If you finish before the 8 minutes are up, please continue to think about the relationship and write down anything else that comes to mind about the relationship.

1. What is the nature of the relationship (e.g., romantic partner, ex-boyfriend/ex-girlfriend, friend, parent)?
2. How long have you known this person? Please indicate in years and (if applicable) months.

## Appendix J

### Visualization Task

We now want you to complete a visualisation task.

Please think about a relationship you have had in which you have felt like the other person was reluctant to get as close as you would have liked. In this relationship you worried that the other person didn't really like you, or love you, and you worried that they wouldn't want to stay with you. In this relationship you wanted to get very close to the other person but you worried that this would scare the other person away. It is crucial that the nominated relationship is (or was) important and meaningful to you.

Now, take a moment and try to get a visual image in your mind of this person. What does this person look like? What is it like being with this person? You may want to remember a time when you were actually with this person. What would he or she say to you? What would you say in return? What does this person mean to you? How did you feel when you were with this person? How would you feel if this person was here with you now?

Please jot down your thoughts in the space provided. You will have 8 minutes to complete this task. The computer will let you know when the 8 minutes are up. If you finish before the 8 minutes are up, please continue to think about the relationship and write down anything else that comes to mind about the relationship.

1. What is the nature of the relationship (e.g., romantic partner, ex-boyfriend/ex-girlfriend, friend, parent)?
2. How long have you known this person? Please indicate in years and (if applicable) months.

**Appendix K**

I have been asked to write about something interesting that has happened to me recently. I am a personal assistant at an advertising agency in Southampton and some time ago my boss asked me to arrange a conference for next month. Although I began to work on making the arrangements for the conference, I thought I had plenty of time to work out the details. Unfortunately, one of my colleagues became ill and I was given some of her work to do, which had shorter deadlines which meant that I had to do this before getting on with my own workload. This means that I only have a month left and there is still so much to do. Now I need to use unpaid hours to complete my work. I am completely overwhelmed by my job and am struggling to make headway on the conference planning. I feel frustrated as I want to do a good job, but feel so stressed.









## Appendix N

Some groups of people are simply inferior to other groups.

Strongly Disagree	Somewhat Disagree	Slightly Disagree	Slightly Agree	Somewhat Agree	Strongly Agree
<input type="checkbox"/>					

In getting what you want, it is sometimes necessary to use force against other groups.

Strongly Disagree	Somewhat Disagree	Slightly Disagree	Slightly Agree	Somewhat Agree	Strongly Agree
<input type="checkbox"/>					

It's OK if some groups have more of a chance in life than others.

Strongly Disagree	Somewhat Disagree	Slightly Disagree	Slightly Agree	Somewhat Agree	Strongly Agree
<input type="checkbox"/>					

To get ahead in life, it is sometimes necessary to step on other groups.

Strongly Disagree	Somewhat Disagree	Slightly Disagree	Slightly Agree	Somewhat Agree	Strongly Agree
<input type="checkbox"/>					

If certain groups stayed in their place, we would have fewer problems.

Strongly Disagree	Somewhat Disagree	Slightly Disagree	Slightly Agree	Somewhat Agree	Strongly Agree
<input type="checkbox"/>					

It's probably a good thing that certain groups are at the top and other groups are at the bottom.

Strongly Disagree	Somewhat Disagree	Slightly Disagree	Slightly Agree	Somewhat Agree	Strongly Agree
<input type="checkbox"/>					

Inferior groups should stay in their place.



We should strive to make incomes as equal as possible.

Strongly Disagree	Somewhat Disagree	Slightly Disagree	Slightly Agree	Somewhat Agree	Strongly Agree
<input type="checkbox"/>					

No group should dominate in society.

Strongly Disagree	Somewhat Disagree	Slightly Disagree	Slightly Agree	Somewhat Agree	Strongly Agree
<input type="checkbox"/>					

Appendix O



Association for Attitude Research, 135-137 Richmond Avenue, Swindon.  
SN1 5RG. Telephone: (+44) 1793 443397. Fax: (+44) 1793 445682.

Thank you for agreeing to take part in this study.

### *About Us*

We are an independent research organisation working alongside government agencies to determine the impact of a number of attitudinal factors on social issues.

### *The Current Study*

This study is looking at how personality traits impact on the processing of descriptive adjectives and involves completing a brief personality measure and sets of rating scales about others. Completion of this questionnaire should take no longer than 15 minutes.

### *What Will We Do With Your Responses?*

Public responses in attitudinal research are critical in helping organisations such as ours understand typical human behaviour. Your responses will be stored and analysed as a set of numerical scores. Once analysed a write up of the results will be released onto a shared government portal from which government agencies can utilise the information to guide policy creation and amendment.

Once again, thank you for agreeing to take part in this study.

*Dr. Graham Smith Ph.D*

Chairman of Public Relations



Using the following rating scale please indicate how much **you** experience each of the given emotional reactions in response to the **person in the image** by writing the score in the space provided. Thank you.

Strongly Disagree	Somewhat Disagree	Slightly Disagree	Slightly Agree	Somewhat Agree	Strongly Agree
1	2	3	4	5	6

**Looking at the person in the image I feel....**

Interested	_____	Alarmed	_____	Stressed	_____
Compassionate	_____	Agitated	_____	Fearful	_____
Calm	_____	Disgust	_____	Envy	_____
Anxious	_____	Hatred	_____	Peaceful	_____
Pity	_____	Threatened	_____	Respectful	_____
Cautious	_____	No Interest	_____	Contempt	_____
Wonder	_____	Shocked	_____	Angered	_____
Intrigued	_____	Vulnerable	_____	Comfortable	_____
Indifferent	_____	Amused	_____		

Using the following rating scale please indicate how much **you** believe each of the personality traits listed is true about **the person in the image** by writing the score in the space provided. Thank you.

<b>Extremely unlike them</b>	<b>Somewhat unlike them</b>	<b>Slightly unlike them</b>	<b>Slightly like them</b>	<b>Somewhat like them</b>	<b>Extremely like them</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
Honest	_____	Violent	_____	Deceitful	_____
Compassionate	_____	Agitated	_____	Artistic	_____
Calm	_____	Empathic	_____	Aggressive	_____
Anxious	_____	Reliable	_____	Peaceful	_____
Criminal	_____	Loving	_____	Respectful	_____
Caring	_____	Indifferent	_____	Cruel	_____



Using the following rating scale please indicate how much **you** experience each of the given emotional reactions in response to the **person in the image** by writing the score in the space provided. Thank you.

Strongly Disagree	Somewhat Disagree	Slightly Disagree	Slightly Agree	Somewhat Agree	Strongly Agree
1	2	3	4	5	6

Looking at the person in the image I feel....

Interested	_____	Alarmed	_____	Stressed	_____
Compassionate	_____	Agitated	_____	Fearful	_____
Calm	_____	Disgust	_____	Envy	_____

Anxious	_____	Hatred	_____	Peaceful	_____
Pity	_____	Threatened	_____	Respectful	_____
Cautious	_____	No Interest	_____	Contempt	_____
Wonder	_____	Shocked	_____	Angered	_____
Intrigued	_____	Vulnerable	_____	Comfortable	_____
Indifferent	_____	Amused	_____		

Using the following rating scale please indicate how much **you** believe each of the personality traits listed is true about **the person in the image** by writing the score in the space provided. Thank you.

<b>Extremely unlike them</b>	<b>Somewhat unlike them</b>	<b>Slightly unlike them</b>	<b>Slightly like them</b>	<b>Somewhat like them</b>	<b>Extremely like them</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
Honest	_____	Violent	_____	Deceitful	_____
Compassionate	_____	Agitated	_____	Artistic	_____
Calm	_____	Empathic	_____	Aggressive	_____
Anxious	_____	Reliable	_____	Peaceful	_____
Criminal	_____	Loving	_____	Respectful	_____
Caring	_____	Indifferent	_____	Cruel	_____



Using the following rating scale please indicate how much **you** experience each of the given emotional reactions in response to the **person in the image** by writing the score in the space provided. Thank you.

<b>Strongly Disagree</b>	<b>Somewhat Disagree</b>	<b>Slightly Disagree</b>	<b>Slightly Agree</b>	<b>Somewhat Agree</b>	<b>Strongly Agree</b>
1	2	3	4	5	6

**Looking at the person in the image I feel....**

Interested	_____	Alarmed	_____	Stressed	_____
Compassionate	_____	Agitated	_____	Fearful	_____
Calm	_____	Disgust	_____	Envy	_____
Anxious	_____	Hatred	_____	Peaceful	_____

Pity	_____	Threatened	_____	Respectful	_____
Cautious	_____	No Interest	_____	Contempt	_____
Wonder	_____	Shocked	_____	Angered	_____
Intrigued	_____	Vulnerable	_____	Comfortable	_____
Indifferent	_____	Amused	_____		

Using the following rating scale please indicate how much **you** believe each of the personality traits listed is true about **the person in the image** by writing the score in the space provided. Thank you.

<b>Extremely unlike them</b>	<b>Somewhat unlike them</b>	<b>Slightly unlike them</b>	<b>Slightly like them</b>	<b>Somewhat like them</b>	<b>Extremely like them</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
Honest	_____	Violent	_____	Deceitful	_____
Compassionate	_____	Agitated	_____	Artistic	_____
Calm	_____	Empathic	_____	Aggressive	_____
Anxious	_____	Reliable	_____	Peaceful	_____
Criminal	_____	Loving	_____	Respectful	_____
Caring	_____	Indifferent	_____	Cruel	_____



Using the following rating scale please indicate how much **you** experience each of the given emotional reactions in response to the **person in the image** by writing the score in the space provided. Thank you.

Strongly Disagree	Somewhat Disagree	Slightly Disagree	Slightly Agree	Somewhat Agree	Strongly Agree
1	2	3	4	5	6

**Looking at the person in the image I feel....**

Interested	_____	Alarmed	_____	Stressed	_____
Compassionate	_____	Agitated	_____	Fearful	_____
Calm	_____	Disgust	_____	Envy	_____
Anxious	_____	Hatred	_____	Peaceful	_____
Pity	_____	Threatened	_____	Respectful	_____

Cautious	_____	No Interest	_____	Contempt	_____
Wonder	_____	Shocked	_____	Angered	_____
Intrigued	_____	Vulnerable	_____	Comfortable	_____
Indifferent	_____	Amused	_____		

Using the following rating scale please indicate how much **you** believe each of the personality traits listed is true about **the person in the image** by writing the score in the space provided. Thank you.

<b>Extremely unlike them</b>	<b>Somewhat unlike them</b>	<b>Slightly unlike them</b>	<b>Slightly like them</b>	<b>Somewhat like them</b>	<b>Extremely like them</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
Honest	_____	Violent	_____	Deceitful	_____
Compassionate	_____	Agitated	_____	Artistic	_____
Calm	_____	Empathic	_____	Aggressive	_____
Anxious	_____	Reliable	_____	Peaceful	_____
Criminal	_____	Loving	_____	Respectful	_____
Caring	_____	Indifferent	_____	Cruel	_____



Using the following rating scale please indicate how much **you** experience each of the given emotional reactions in response to the **person in the image** by writing the score in the space provided. Thank you.

Strongly Disagree	Somewhat Disagree	Slightly Disagree	Slightly Agree	Somewhat Agree	Strongly Agree
1	2	3	4	5	6

Looking at the person in the image I feel....

Interested	_____	Alarmed	_____	Stressed	_____
Compassionate	_____	Agitated	_____	Fearful	_____
Calm	_____	Disgust	_____	Envy	_____

Anxious	_____	Hatred	_____	Peaceful	_____
Pity	_____	Threatened	_____	Respectful	_____
Cautious	_____	No Interest	_____	Contempt	_____
Wonder	_____	Shocked	_____	Angered	_____
Intrigued	_____	Vulnerable	_____	Comfortable	_____
Indifferent	_____	Amused	_____		

Using the following rating scale please indicate how much **you** believe each of the personality traits listed is true about **the person in the image** by writing the score in the space provided. Thank you.

<b>Extremely unlike them</b>	<b>Somewhat unlike them</b>	<b>Slightly unlike them</b>	<b>Slightly like them</b>	<b>Somewhat like them</b>	<b>Extremely like them</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
Honest	_____	Violent	_____	Deceitful	_____
Compassionate	_____	Agitated	_____	Artistic	_____
Calm	_____	Empathic	_____	Aggressive	_____
Anxious	_____	Reliable	_____	Peaceful	_____
Criminal	_____	Loving	_____	Respectful	_____
Caring	_____	Indifferent	_____	Cruel	_____



Using the following rating scale please indicate how much **you** experience each of the given emotional reactions in response to the **person in the image** by writing the score in the space provided. Thank you.

Strongly Disagree	Somewhat Disagree	Slightly Disagree	Slightly Agree	Somewhat Agree	Strongly Agree
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**Looking at the person in the image I feel....**

Interested	_____	Alarmed	_____	Stressed	_____
Compassionate	_____	Agitated	_____	Fearful	_____
Calm	_____	Disgust	_____	Envy	_____

Anxious	_____	Hatred	_____	Peaceful	_____
Pity	_____	Threatened	_____	Respectful	_____
Cautious	_____	No Interest	_____	Contempt	_____
Wonder	_____	Shocked	_____	Angered	_____
Intrigued	_____	Vulnerable	_____	Comfortable	_____
Indifferent	_____	Amused	_____		

Using the following rating scale please indicate how much **you** believe each of the personality traits listed is true about **the person in the image** by writing the score in the space provided. Thank you.

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<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
Honest	_____	Violent	_____	Deceitful	_____
Compassionate	_____	Agitated	_____	Artistic	_____
Calm	_____	Empathic	_____	Aggressive	_____
Anxious	_____	Reliable	_____	Peaceful	_____
Criminal	_____	Loving	_____	Respectful	_____
Caring	_____	Indifferent	_____	Cruel	_____



Using the following rating scale please indicate how much **you** experience each of the given emotional reactions in response to the **person in the image** by writing the score in the space provided. Thank you.

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Looking at the person in the image I feel....

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Compassionate	_____	Agitated	_____	Fearful	_____
Calm	_____	Disgust	_____	Envy	_____

Anxious	_____	Hatred	_____	Peaceful	_____
Pity	_____	Threatened	_____	Respectful	_____
Cautious	_____	No Interest	_____	Contempt	_____
Wonder	_____	Shocked	_____	Angered	_____
Intrigued	_____	Vulnerable	_____	Comfortable	_____
Indifferent	_____	Amused	_____		

Using the following rating scale please indicate how much **you believe** each of the personality traits listed is true about **the person in the image** by writing the score in the space provided. Thank you.

<b>Extremely unlike them</b>	<b>Somewhat unlike them</b>	<b>Slightly unlike them</b>	<b>Slightly like them</b>	<b>Somewhat like them</b>	<b>Extremely like them</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
Honest	_____	Violent	_____	Deceitful	_____
Compassionate	_____	Agitated	_____	Artistic	_____
Calm	_____	Empathic	_____	Aggressive	_____
Anxious	_____	Reliable	_____	Peaceful	_____
Criminal	_____	Loving	_____	Respectful	_____
Caring	_____	Indifferent	_____	Cruel	_____



Using the following rating scale please indicate how much **you** experience each of the given emotional reactions in response to the **person in the image** by writing the score in the space provided. Thank you.

Strongly Disagree	Somewhat Disagree	Slightly Disagree	Slightly Agree	Somewhat Agree	Strongly Agree
1	2	3	4	5	6

Looking at the person in the image I feel....

Interested \_\_\_\_\_ Alarmed \_\_\_\_\_ Stressed \_\_\_\_\_  
 Compassionate \_\_\_\_\_ Agitated \_\_\_\_\_ Fearful \_\_\_\_\_

Calm	_____	Disgust	_____	Envy	_____
Anxious	_____	Hatred	_____	Peaceful	_____
Pity	_____	Threatened	_____	Respectful	_____
Cautious	_____	No Interest	_____	Contempt	_____
Wonder	_____	Shocked	_____	Angered	_____
Intrigued	_____	Vulnerable	_____	Comfortable	_____
Indifferent	_____	Amused	_____		

Using the following rating scale please indicate how much **you** believe each of the personality traits listed is true about **the person in the image** by writing the score in the space provided. Thank you.

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<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
Honest	_____	Violent	_____	Deceitful	_____
Compassionate	_____	Agitated	_____	Artistic	_____
Calm	_____	Empathic	_____	Aggressive	_____
Anxious	_____	Reliable	_____	Peaceful	_____
Criminal	_____	Loving	_____	Respectful	_____
Caring	_____	Indifferent	_____	Cruel	_____



Using the following rating scale please indicate how much **you** experience each of the given emotional reactions in response to the **person in the image** by writing the score in the space provided. Thank you.

Strongly Disagree	Somewhat Disagree	Slightly Disagree	Slightly Agree	Somewhat Agree	Strongly Agree
1	2	3	4	5	6

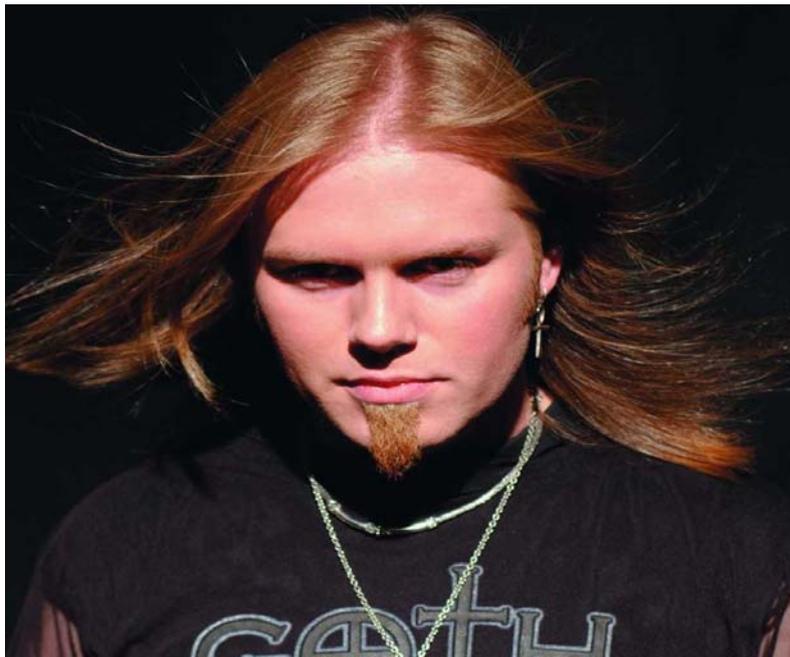
Looking at the person in the image I feel....

Interested \_\_\_\_\_ Alarmed \_\_\_\_\_ Stressed \_\_\_\_\_  
 Compassionate \_\_\_\_\_ Agitated \_\_\_\_\_ Fearful \_\_\_\_\_

Calm	_____	Disgust	_____	Envy	_____
Anxious	_____	Hatred	_____	Peaceful	_____
Pity	_____	Threatened	_____	Respectful	_____
Cautious	_____	No Interest	_____	Contempt	_____
Wonder	_____	Shocked	_____	Angered	_____
Intrigued	_____	Vulnerable	_____	Comfortable	_____
Indifferent	_____	Amused	_____		

Using the following rating scale please indicate how much **you** believe each of the personality traits listed is true about **the person in the image** by writing the score in the space provided. Thank you.

<b>Extremely unlike them</b>	<b>Somewhat unlike them</b>	<b>Slightly unlike them</b>	<b>Slightly like them</b>	<b>Somewhat like them</b>	<b>Extremely like them</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
Honest	_____	Violent	_____	Deceitful	_____
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Anxious	_____	Reliable	_____	Peaceful	_____
Criminal	_____	Loving	_____	Respectful	_____
Caring	_____	Indifferent	_____	Cruel	_____



Using the following rating scale please indicate how much **you** experience each of the given emotional reactions in response to the **person in the image** by writing the score in the space provided. Thank you.

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Looking at the person in the image I feel....

Interested	_____	Alarmed	_____	Stressed	_____
Compassionate	_____	Agitated	_____	Fearful	_____
Calm	_____	Disgust	_____	Envy	_____

Anxious	_____	Hatred	_____	Peaceful	_____
Pity	_____	Threatened	_____	Respectful	_____
Cautious	_____	No Interest	_____	Contempt	_____
Wonder	_____	Shocked	_____	Angered	_____
Intrigued	_____	Vulnerable	_____	Comfortable	_____
Indifferent	_____	Amused	_____		

Using the following rating scale please indicate how much **you believe** each of the personality traits listed is true about **the person in the image** by writing the score in the space provided. Thank you.

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<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
Honest	_____	Violent	_____	Deceitful	_____
Compassionate	_____	Agitated	_____	Artistic	_____
Calm	_____	Empathic	_____	Aggressive	_____
Anxious	_____	Reliable	_____	Peaceful	_____
Criminal	_____	Loving	_____	Respectful	_____
Caring	_____	Indifferent	_____	Cruel	_____



Using the following rating scale please indicate how much **you** experience each of the given emotional reactions in response to the **person in the image** by writing the score in the space provided. Thank you.

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Looking at the person in the image I feel....

Interested \_\_\_\_\_ Alarmed \_\_\_\_\_ Stressed \_\_\_\_\_  
 Compassionate \_\_\_\_\_ Agitated \_\_\_\_\_ Fearful \_\_\_\_\_

Calm	_____	Disgust	_____	Envy	_____
Anxious	_____	Hatred	_____	Peaceful	_____
Pity	_____	Threatened	_____	Respectful	_____
Cautious	_____	No Interest	_____	Contempt	_____
Wonder	_____	Shocked	_____	Angered	_____
Intrigued	_____	Vulnerable	_____	Comfortable	_____
Indifferent	_____	Amused	_____		

Using the following rating scale please indicate how much **you** believe each of the personality traits listed is true about **the person in the image** by writing the score in the space provided. Thank you.

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<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
Honest	_____	Violent	_____	Deceitful	_____
Compassionate	_____	Agitated	_____	Artistic	_____
Calm	_____	Empathic	_____	Aggressive	_____
Anxious	_____	Reliable	_____	Peaceful	_____
Criminal	_____	Loving	_____	Respectful	_____
Caring	_____	Indifferent	_____	Cruel	_____



Using the following rating scale please indicate how much **you** experience each of the given emotional reactions in response to the **person in the image** by writing the score in the space provided. Thank you.

<b>Strongly Disagree</b>	<b>Somewhat Disagree</b>	<b>Slightly Disagree</b>	<b>Slightly Agree</b>	<b>Somewhat Agree</b>	<b>Strongly Agree</b>
1	2	3	4	5	6

**Looking at the person in the image I feel....**

Interested \_\_\_\_\_ Alarmed \_\_\_\_\_ Stressed \_\_\_\_\_  
 Compassionate \_\_\_\_\_ Agitated \_\_\_\_\_ Fearful \_\_\_\_\_

Calm	_____	Disgust	_____	Envy	_____
Anxious	_____	Hatred	_____	Peaceful	_____
Pity	_____	Threatened	_____	Respectful	_____
Cautious	_____	No Interest	_____	Contempt	_____
Wonder	_____	Shocked	_____	Angered	_____
Intrigued	_____	Vulnerable	_____	Comfortable	_____
Indifferent	_____	Amused	_____		

Using the following rating scale please indicate how much **you** believe each of the personality traits listed is true about **the person in the image** by writing the score in the space provided. Thank you.

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<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
Honest	_____	Violent	_____	Deceitful	_____
Compassionate	_____	Agitated	_____	Artistic	_____
Calm	_____	Empathic	_____	Aggressive	_____
Anxious	_____	Reliable	_____	Peaceful	_____
Criminal	_____	Loving	_____	Respectful	_____
Caring	_____	Indifferent	_____	Cruel	_____

## Appendix P



Association for Attitude Research, 135-137 Richmond Avenue, Swindon.  
SN1 5RG. Telephone: (+44) 1793 443397. Fax: (+44) 1793 445682.

Thank you for agreeing to take part in this study.

### *About Us*

We are an independent research organisation working alongside government agencies to determine the impact of a number of attitudinal factors on social issues.

### *The Current Study*

This study is looking at how personality traits impact on the processing of descriptive adjectives and involves completing sets of rating scales about others. Ratings will be made toward two of eight groups of people randomly selected by our research outlets in universities within the UK. Completion of this questionnaire should take no longer than 15 minutes.

### *What Will We Do With Your Responses?*

Public responses in attitudinal research are critical in helping organisations such as ours understand typical human behaviour. Your responses will be stored and analysed as a set of numerical scores. Once analysed a write up of the results will be released onto a shared government portal from which government agencies can utilise the information to guide policy creation and amendment.

Once again, thank you for agreeing to take part in this study.

*Dr. Graham Smith Ph.D*



**Looking at the man in the photograph, please rate how much you would be comfortable interacting with this man on the levels given below using the following numerical scale:**

Not at all comfortable	Somewhat uncomfortable	Slightly uncomfortable	Slightly comfortable	Somewhat comfortable	Extremely comfortable
0	1	2	3	4	5

1. How comfortable would you be TALKING to this person? \_\_\_\_\_

2. How comfortable would you be IGNORING this person? \_\_\_\_\_

3. How comfortable would you be having a close RELATIONSHIP with this person? \_\_\_\_\_

4. How comfortable would you be if APPROACHED by this person? \_\_\_\_\_

5. How comfortable would you be BEFRIENDING this person? \_\_\_\_\_

6. How comfortable would you be APPROACHING this person? \_\_\_\_\_

7. How comfortable would you be AVOIDING this person? \_\_\_\_\_

8. How comfortable would you be WORKING WITH this person? \_\_\_\_\_



**Looking at the man in the photograph, please rate how much you would be comfortable interacting with this man on the levels given below using the following numerical scale:**

Not at all comfortable	Somewhat uncomfortable	Slightly uncomfortable	Slightly comfortable	Somewhat comfortable	Extremely comfortable
0	1	2	3	4	5

1. How comfortable would you be TALKING to this person? \_\_\_\_\_

2. How comfortable would you be IGNORING this person? \_\_\_\_\_

3. How comfortable would you be having a close RELATIONSHIP with this person? \_\_\_\_\_

4. How comfortable would you be if APPROACHED by this person? \_\_\_\_\_

5. How comfortable would you be BEFRIENDING this person? \_\_\_\_\_

6. How comfortable would you be APPROACHING this person? \_\_\_\_\_

7. How comfortable would you be AVOIDING this person? \_\_\_\_\_

8. How comfortable would you be WORKING WITH this person? \_\_\_\_\_



**Looking at the man in the photograph, please rate how much you would be comfortable interacting with this man on the levels given below using the following numerical scale:**

Not at all comfortable	Somewhat uncomfortable	Slightly uncomfortable	Slightly comfortable	Somewhat comfortable	Extremely comfortable
0	1	2	3	4	5

1. How comfortable would you be TALKING to this person? \_\_\_\_\_

2. How comfortable would you be IGNORING this person? \_\_\_\_\_

3. How comfortable would you be having a close RELATIONSHIP with this person? \_\_\_\_\_

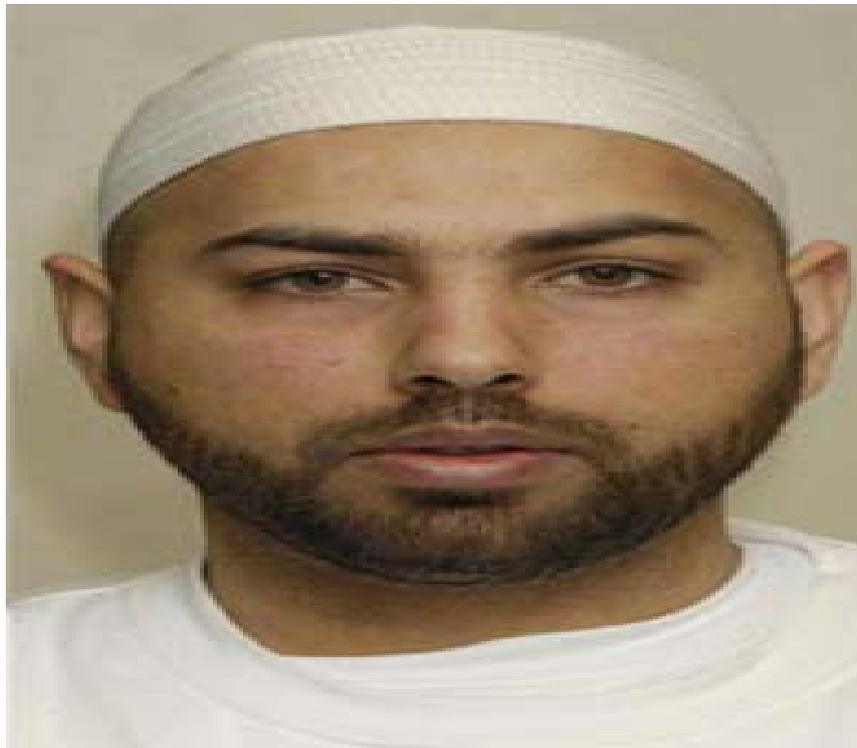
4. How comfortable would you be if APPROACHED by this person? \_\_\_\_\_

5. How comfortable would you be BEFRIENDING this person? \_\_\_\_\_

6. How comfortable would you be APPROACHING this person? \_\_\_\_\_

7. How comfortable would you be AVOIDING this person? \_\_\_\_\_

8. How comfortable would you be WORKING WITH this person? \_\_\_\_\_



**Looking at the man in the photograph, please rate how much you would be comfortable interacting with this man on the levels given below using the following numerical scale:**

Not at all comfortable	Somewhat uncomfortable	Slightly uncomfortable	Slightly comfortable	Somewhat comfortable	Extremely comfortable
0	1	2	3	4	5

1. How comfortable would you be TALKING to this person? \_\_\_\_\_

2. How comfortable would you be IGNORING this person? \_\_\_\_\_

3. How comfortable would you be having a close RELATIONSHIP with this person? \_\_\_\_\_

4. How comfortable would you be if APPROACHED by this person? \_\_\_\_\_

5. How comfortable would you be BEFRIENDING this person? \_\_\_\_\_

6. How comfortable would you be APPROACHING this person? \_\_\_\_\_

7. How comfortable would you be AVOIDING this person? \_\_\_\_\_

8. How comfortable would you be WORKING WITH this person? \_\_\_\_\_



**Looking at the man in the photograph, please rate how much you would be comfortable interacting with this man on the levels given below using the following numerical scale:**

Not at all comfortable	Somewhat uncomfortable	Slightly uncomfortable	Slightly comfortable	Somewhat comfortable	Extremely comfortable
0	1	2	3	4	5

1. How comfortable would you be TALKING to this person? \_\_\_\_\_

2. How comfortable would you be IGNORING this person? \_\_\_\_\_

3. How comfortable would you be having a close RELATIONSHIP with this person? \_\_\_\_\_

4. How comfortable would you be if APPROACHED by this person? \_\_\_\_\_

5. How comfortable would you be BEFRIENDING this person? \_\_\_\_\_

6. How comfortable would you be APPROACHING this person? \_\_\_\_\_

7. How comfortable would you be AVOIDING this person? \_\_\_\_\_

8. How comfortable would you be WORKING WITH this person? \_\_\_\_\_

## Appendix Q

### Demographic Information

1a. Gender (please circle one)

[*Male / Female*]

1b. Year of study (please circle one)

[*First year / Second year / Third year / Other*]

2. Age \_\_\_\_\_

3. Approximate Height \_\_\_\_\_ Approximate Weight \_\_\_\_\_(lbs) Prefer not to say \_\_\_\_\_

4. Sexual orientation (please circle one)

[*Gay Lesbian Bisexual Heterosexual Prefer not to say*]

5. Please identify your ethnicity from the following options.

a) Black of Black British \_\_\_\_\_

Caribbean \_\_\_\_\_

African \_\_\_\_\_

Any other Black background within (a) \_\_\_\_\_

c) Asian or Asian British \_\_\_\_\_

Indian \_\_\_\_\_

Pakistani \_\_\_\_\_

Bangladeshi \_\_\_\_\_

Any other Asian background within (c) \_\_\_\_\_

b) White \_\_\_\_\_

British \_\_\_\_\_

Irish \_\_\_\_\_

Any other White background \_\_\_\_\_

d) Mixed \_\_\_\_\_

White & Black Caribbean \_\_\_\_\_

White & Black African \_\_\_\_\_

White & Asian \_\_\_\_\_

Any other mixed background \_\_\_\_\_

- e) Other ethnic groups \_\_\_\_\_  
 Chinese \_\_\_\_\_  
 Japanese \_\_\_\_\_
- f) Any other ethnic group \_\_\_\_\_  
 Do not state \_\_\_\_\_
6. Do you consider yourself to be disabled? Yes \_\_\_\_\_ No \_\_\_\_\_ Prefer not to say \_\_\_\_\_
- 6a. If yes, does your disability limit your physical ability in daily life? Yes \_\_\_\_\_ No \_\_\_\_\_
7. Please select your religious affiliation (tick one)
- Christian (Protestant) \_\_\_\_\_ Christian (Catholic) \_\_\_\_\_ Jewish \_\_\_\_\_ Sikh \_\_\_\_\_ Muslim \_\_\_\_\_  
 Mormon \_\_\_\_\_ Buddhist \_\_\_\_\_ Hindu \_\_\_\_\_ Other \_\_\_\_\_ Not religious \_\_\_\_\_
8. Are you currently in a romantic relationship? Yes \_\_\_\_\_ No \_\_\_\_\_
9. What is your current living situation?  
 Living alone \_\_\_\_\_ Living with parents \_\_\_\_\_ Living with partner and/or children \_\_\_\_\_  
 Living in shared accommodation with peers: permanently \_\_\_\_\_ in term time only \_\_\_\_\_
10. Are you employed? (Please tick one):  
 \_\_\_\_\_ Yes; full-time \_\_\_\_\_ Yes; part-time \_\_\_\_\_ No; unemployed  
 \_\_\_\_\_ No; retired \_\_\_\_\_ Stay at home parent \_\_\_\_\_ Student \_\_\_\_\_ other
11. Do you regularly exercise? Yes \_\_\_\_\_ No \_\_\_\_\_
- 11a. If yes, how many times a week do you exercise?  
 Once \_\_\_\_\_ Twice \_\_\_\_\_ Three times or more \_\_\_\_\_

**Thank you for your honesty**

Please place in envelope provided and seal

**Appendix R**  
**Processing Emotional Information**

We now want you to complete a visualization task.

Please think about a relationship you have had in which you have found that it was relatively easy to get close to the other person and you felt comfortable depending on the other person. In this relationship you didn't often worry about being abandoned by the other person and you didn't worry about the other person getting too close to you. It is crucial that the nominated relationship is (or was) important and meaningful to you.

Now, take a moment and try to get a visual image in your mind of this person. What does this person look like? What is it like being with this person? You may want to remember a time when you were actually with this person. What would he or she say to you? What would you say in return? What does this person mean to you? How did you feel when you were with this person? How would you feel if this person was here with you now?

Please jot down your thoughts in the space provided. You will have ten minutes to complete this task. We will let you know when the 8 minutes are up. If you finish before the ten minutes are up, please continue to think about the relationship and write down anything else that comes to mind about the relationship.

1. What is the nature of the relationship (e.g., romantic partner, ex-boyfriend/ex-girlfriend, friend, parent)?

2. How long have you known this person? Please indicate in years and (if applicable) months.

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**Appendix T**



## Appendix U

### Decision Making and Cognitive Processes in a Student Population

We are interested in exploring how undergraduate students make important decisions and the cognitive processes through which these decisions are made. Importantly, we are interested in decisions which are realistic, not ambiguous. In order to do this, we would like you to imagine a scenario which is a shared experience between most undergraduates.

**Imagine that you have recently moved to a new area and must choose a flatmate to share your home.**

In the following scenarios, please imagine that you are faced with two people who are equal in all respects. Imagine that you have to choose just one person to share your home with. For each pair, there is only one obvious characteristic that is different between them. Who would you choose? Your responses are entirely confidential, and you have the right to withdraw from participation at any time.

Please indicate your choice by circling the candidate whom you would choose. Then indicate how much you prefer the person you have chosen, using the scale from 1 (slightly) to 100 (very much).

Your responses will be completely confidential, no personal information will be recorded with this questionnaire.

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I \_\_\_\_\_ have read the information above and agree to take part in this study. I understand that I have the right to withdraw and that my responses will be confidential.

Signed \_\_\_\_\_

Date \_\_\_\_\_

Scenario A

Imagine that you have to choose just one of two people, one of whom is SLIM and the other is OBESE (very fat). Who would you choose? (Circle One)

SLIM                      OBESE

By how much would you prefer this person?

Slightly	Mildly		Moderately			Strongly		Very Much		
1	10	20	30	40	50	60	70	80	90	100

### Scenario B

Imagine that you have to choose just one of two people, one of whom is GAY/LESBIAN and the other is STRAIGHT. Who would you choose? (Circle One)

GAY/LESBIAN                      STRAIGHT

By how much would you prefer this person?

Slightly	Mildly		Moderately			Strongly		Very Much		
1	10	20	30	40	50	60	70	80	90	100

### Scenario C

Imagine that you have to choose just one of two people, one of whom is PHYSICALLY DISABLED and the other is ABLE-BODIED. Who would you choose? (Circle One)

PHYSICALLY DISABLED                      ABLE-BODIED

By how much would you prefer this person?

Slightly	Mildly		Moderately			Strongly		Very Much		
1	10	20	30	40	50	60	70	80	90	100

### Scenario D

Imagine that you have to choose just one of two people, are forced to choose between two people, one of whom is a Muslim and the other is NON-MUSLIM. Who would you choose? (Circle One)

MUSLIM                      NON-MUSLIM

By how much would you prefer this person?

Slightly	Mildly		Moderately			Strongly		Very Much		
1	10	20	30	40	50	60	70	80	90	100

## **Appendix V**

Thank you for taking part in our study.

Before I reveal what the purpose of this study is, can you tell me what you thought it was about? (Researcher in observation lab to record responses).

At any time did you become suspicious that things weren't as they should be?

Did you believe that you would be taking part with the person in the photograph?

Did you believe that the person in the photograph was only temporarily absent and would return?

Thank you.

Because research shows that negative attitudes toward outgroups are higher in people who have poor empathic ability (Batson et al., 1997) and who are high in attachment insecurity (Mikulincer et al., 2001), the purpose of our study was to examine the roles of attachment security and empathy in determining views about outgroup members, in this case – Muslims; a group identified by undergraduates to be a salient outgroup in an earlier pilot study.

Given the sensitive nature of this research, deception was necessary:

Firstly, your photograph was not taken and no image of you will be associated with this study.

Secondly, you were never going to be working with a second participant whose photograph you were shown.

Finally, the last questionnaire was part of this study and was not, as you were told, to do with a different school at the university.

These deceptions were vital in this study as it was critical that you believed that you were going to be working alongside this person in order to activate unconscious stereotypes, and an explicit measure of discrimination will allow us to answer questions regarding doubts caused by using self-report measures in discrimination research. Also, the paper copies of your demographics will be stored separately from any other questionnaires which you have completed today; so if they were to be found it would be impossible to know whose responses they were. These efforts ensure that confidentiality is maintained. Full ethical approval has been given to support this.

You were randomly allocated to one of two visualisation tasks aimed to make you feel more secure or neutral in order to examine causal processes in this study.

Your participation will help us to better understand ingroup/outgroup attitudes, and I ask that you do not talk about this study to other potential participants in order to avoid demand characteristics.

Thank you again, do you have any questions?