

The Role of Group Salience in Cross-group Friendships: An Experimental Response to
Questions Raised by Qualitative Researchers

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Abstract

The contact hypothesis, long regarded as one of psychology's most effective methods for reducing prejudice, posits that when conditions of contact between members of different groups are optimal, the positive feelings engendered by the contact scenario will generalise to the rest of the other group. Cross-group friendship is a form of contact that is especially effective at achieving this provided that, once friendships are formed, group salience is high (Pettigrew, 1998). High group salience reinforces the link between the friend and his/her group, and reduces intergroup anxiety by removing threats to the groups' distinctiveness (Pettigrew & Tropp, 2008). Qualitative literature on the topic has however contradicted these findings and pointed to cross-group friendships as being fraught with tension with effort expended to invisibilise race, often leaving unaltered prejudiced views. To shed further light on this, we randomly assigned Black and White university students to control and experimental groups and manipulated their respective group salience in the experimental condition. We determined that cross-race friendship predicted lowered prejudice across both population groups, and that this relationship was mediated by intergroup anxiety. We further found that group salience moderated the relationship between cross-race friendship and intergroup anxiety. We discuss how the two population groups experienced intergroup anxiety and group salience differently, and examine these findings in the context of South Africa's divisive past.

Keywords: contact hypothesis, friendship, prejudice, group salience, intergroup anxiety

The Role of Group Salience in Cross-group Friendships: An Experimental Response to Questions Raised by Qualitative Researchers

Despite the end of apartheid some two decades ago, segregation and prejudice persist among South Africa's various race groups (Dixon & Durrheim, 2003; Finchilescu, Tredoux, Mynhardt, Pillay, & Muianga, 2007; Tredoux, Dixon, Underwood, Nunez, & Finchilescu, 2005). Prejudice has been defined as "an attitude, emotion or behaviour towards members of a group which directly or indirectly implies some negativity towards that group" (Brown, 2010, p. 11). One of psychology's best strategies for reducing prejudice is said to be the contact hypothesis (Dovidio, Gaertner, & Kawakami, 2003). This hypothesis (Allport, 1954/1979) posits that positive contact between members of different groups will, under 'optimal conditions', reduce intergroup prejudice. These conditions are 1) equal status of contactants, 2) common goals which encourage 3) co-operation, and 4) institutional support.

In their meta-analytic review of 515 studies (with 250,000 participants), Pettigrew and Tropp (2006) reported a significant negative relationship between intergroup contact and prejudice ($r = -.21$) even in the absence of compliance with all of these conditions, which they therefore considered facilitating but not necessary conditions. They found however that the negative relationship between friendship and prejudice was significantly stronger ($r = -.25$), perhaps justifying Pettigrew's (1998) call for a fifth criterion to be added to the contact conditions, namely that contact should be of sufficient length and quality to facilitate friendship potential. Allport (1979) in fact alluded to this requirement that contact should be positive and meaningful, saying that the contact situation should "avoid artificiality" and that "the deeper and more genuine the association, the greater its effect" (p. 489). Turner, Hewstone, Voci, Paolini, and Christ (2007) argue that friendship, which embodies the optimal conditions for contact, is a particularly effective form of contact for reducing prejudice. Put differently, the better the quality of the contact, the greater the chance of reducing prejudice (Allport, 1954/1979; Voci & Hewstone, 2003), and, "[a]s cross-group friendship implies contact of a high quality, it makes intuitive sense that friendship would be particularly effective at reducing prejudice" (Turner, Hewstone, Voci, Paolini, et al., 2007, p. 214).

Numerous studies, cross-sectional and longitudinal, experimental and quasi-experimental, in countries and among populations across the globe, have shown that cross-group friendship predicts reduced prejudice (Davies, Tropp, Aron, Pettigrew, & Wright, 2011; Hamberger & Hewstone, 1997; Hewstone, Cairns, Voci, Hamberger, & Niens, 2006; Levin, Van Laar, & Sidanius, 2003; Page-Gould, Mendoza-Denton, & Tropp, 2008; Paolini,

Hewstone, Cairns, & Voci, 2004; Pettigrew, 1997; Swart, Hewstone, Christ, & Voci, 2011; Turner, Hewstone, Voci, Paolini, et al., 2007; Van Laar, Levin, Sinclair, & Sidanius, 2005).

Mediators of Cross-group Friendship and Prejudice

Having established that cross-group friendship predicts reduced prejudice, the question is then, how does this occur? Allport (1954/1979) seemed to believe that this happened via learning about the other group through the friendship relationship. Batson et al. (1997) argue that cognitive strategies have limited effect in changing attitudes towards a stigmatised group, and that affective factors are more likely to be at play. Increased affective empathy - “an other-oriented emotional response congruent with another’s perceived welfare” (Batson et al., 1997, p. 105) - has been shown to be associated with reduced prejudice (Levin et al., 2003; Pettigrew, 1997; Swart et al., 2011), and it is argued that in the special contact scenario of friendships, affective empathy mediates the relationship between self-disclosure and prejudice (Turner, Hewstone, & Voci, 2007; Turner, Hewstone, Voci, Paolini, et al., 2007). Self-disclosure is the “verbal communication of personally relevant information, thoughts, and feelings to another” (Laurenceau, Barrett, & Pietromonaco, 1998, p. 1238), and research suggests that self-disclosure, which results in mutual attraction and empathy, fosters mutual trust, and is important for achieving personal goals such as gaining information (Ensari & Miller, 2002; Turner & Feddes, 2011; Turner, Hewstone, Voci, Paolini, et al., 2007), is the best predictor of intimacy (Fehr, 2004). In turn, “intimacy of disclosures with an outgroup friend should ... be strongly related to more positive outgroup attitudes” (Turner & Feddes, 2011, p. 915).

A negative emotion that manifests itself in intergroup relations, is intergroup anxiety, the fear of “negative psychological or behavioural consequences for the self, and negative evaluations of members of the outgroup and the ingroup” (Stephan & Stephan, 1985, p. 159). High levels of anxiety in intergroup relations lead to negative behavioural, cognitive and emotional outcomes, and may amplify prejudice. Behavioural responses include the exaggeration of normative responses, such as avoiding contact altogether or responding in accordance with negative inter-or ingroup behavioural norms; cognitive consequences include stereotype attribution and concerns for self-esteem which may lead to ego-defensive behaviour; and affective consequences include heightened emotions and evaluations (Stephan & Stephan, 1985). Because of these negative consequences of intergroup anxiety, it is important to determine the factors that inhibit it. Paolini et al. (2004) showed that friendship between Catholics and Protestants in Northern Ireland led to reduced prejudice mediated by reduced anxiety, while Turner and Feddes (2011) evidenced that anxiety significantly

mediated the relation between students' friendship with members of other race or religious groups, and their attitudes to those groups in general. Numerous other studies have demonstrated that cross-group friendship reduces prejudice, and that this relationship is mediated by reduced intergroup anxiety (Islam & Hewstone, 1993; Page-Gould et al., 2008; Turner, Hewstone, Voci, & Vonofakou, 2008; Voci & Hewstone, 2003).

Page-Gould et al. (2008) demonstrated experimentally the relationship between the two mediators of self-disclosure and intergroup anxiety: manipulated disclosure reduced anxiety, which in turn led to participants initiating contact with other cross-group members. Ensari and Miller (2002) agree that disclosure, which is often reciprocal, operates to reduce threatening aspects of cross-group contact. Turner, Hewstone, and Voci (2007) also examined the relationship between self-disclosure and anxiety as mediators of the relationship between cross-group friendship and prejudice, in four studies of people from White and South Asian groups in the UK. They found that cross-group friendship was associated with reduced prejudice, significantly mediated by self-disclosure and, to a lesser extent, intergroup anxiety.

Moderators of Cross-group Friendship and Prejudice

While it is shown that pleasant contact between friends from different groups, mediated by affective factors such as increased self-disclosure and reduced intergroup anxiety, generalises or extends beyond the friendship to better attitudes to the rest of the other group, this has not always been shown to be the case (see Brown, Vivian, & Hewstone, 1999, for studies in this regard), and two key theories have been advanced to explain the circumstances required for such generalisation to occur. While taking divergent positions, both theories turn on the issue of group salience. Group salience is defined as “[o]ne that is functioning psychologically to increase the influence of one’s membership in that group on perception and behaviour, and/or the influence of another person’s identity as a group member on one’s impression of and hence behaviour towards that person” (Turner, Hogg, Oakes, Reicher, & Wetherell, 1987, p. 118). The idea of group salience is rooted in social identity theory (Tajfel & Turner, 1979) and social categorisation theory (Turner et al., 1987). According to these theories, we perceive ourselves on a personal-social continuum depending on which aspect of our selves is salient, or activated, at any one time. Social or group salience may be cued by highlighting group differences, drawing attention to group membership, and by associating group membership with qualitative judgements (Ensari & Miller, 2002; Miller, 2002). When the group is salient, we define ourselves in terms of similarities to group members of the salient group, and differences between members of that and other groups; in other words, we categorise ourselves and others. Because of the importance of group membership to our self-

identity and hence self-concept, and because we strive for positive self-concept, we evaluate more positively members of our own or ingroup than we do those of the outgroup when group is salient. “That is, ingroup bias follows from a sequence of social categorization, social identification, and social-group comparison driven by a pressure to positively differentiate one's ingroup from relevant outgroups” (Bettencourt, Charlton, Dorr, & Hume, 2001, p. 521). Because “social categorisation ... has a profound impact on affective, cognitive, and behavioural responses towards others” (Dovidio et al., 2003, p. 11), researchers agree that group salience, which leads to categorisation, is likely to be a strong moderator of the relationship between cross-group friendship and prejudice. There is however disagreement as to how this operates.

Some argue that group salience should be low for the positive effects of contact to generalise to the rest of the outgroup (Brewer & Miller, 1984). This argument rests on the idea of ‘personalisation’. According to Miller (2002), “personalization necessarily involves making direct self-other interpersonal comparisons that cross category boundaries” (p. 396). It is argued that attending to personal information rather than group identity “will undermine category identity as a basis for future interaction with the same or new members of the particular category” (Miller, Brewer, & Edwards, 1985, p. 65). Thus, this theory posits that when personal attributes are attended to and commonalities identified, the long-term effect will be to diminish the probability of attending to categories as a basis for attitude formation (Brown et al., 1999). This is because personalisation results in the contactant being perceived as a more complex person, so that the homogeneity often ascribed to outgroup members will diminish, resulting in such members being seen as unique individuals (Harwood, Hewstone, Paolini, & Voci, 2005). Personalisation is also said to enable self-disclosure which, in turn, increases positive affect and reduces negative affect (intergroup anxiety) (Miller, 2002), leading to reduced prejudice (Bettencourt, Brewer, Croak, & Miller, 1992; Miller et al., 1985).

Hewstone and Brown (1986) put forward an opposing argument, based on the idea of ‘differentiation’. Their theory is that contact results in more positive attitudes towards the outgroup when group salience is high and group differences are noticed, “because the very conditions that promote personalization will tend to sever the link between the exemplar and the category” (Voci & Hewstone, 2003, p. 39). Thus, the basis of this theory is that if cues as to category are evident during contact, positive attitudes generated by the interpersonal contact scenario will then generalise to the rest of the outgroup. Voci and Hewstone (2003) demonstrated that Italians’ attitudes towards foreigners improved when group salience was

high, Brown et al. (1999) showed that high group salience moderated the relationship between contact and prejudice towards citizens of different countries, Van Oudenhoven, Groenewoud, and Hewstone (1996) determined that the making salient of Turkish confederates' nationality resulted in Dutch participants adopting more positive attitudes to Turkish people in general, and even in the literature regarding imagined contact, high group salience has been shown to lead to improved attitudes towards the outgroup (Pagotto, Visintin, De Iorio, & Voci, 2013).

Johnston and Hewstone (1992) support this differentiation theory, on the basis that personalisation will not generalise to the outgroup, because outgroup members who are more positively stereotyped than the rest of the outgroup will simply be regarded as atypical and placed in a separate mental category. This will then leave unaltered existing attitudes toward the outgroup. They therefore consider that interactants need to be typical of their respective groups in order for generalisation of positive attitude beyond the contact relationship. Brown et al. (1999) explain the interaction between typicality and salience thus: "A typical member from a homogeneous group will heighten intergroup salience, while an atypical member of that same homogeneous group is more likely to be seen in an idiosyncratic (inter-personal) way" (p. 745). The necessity for typicality is supported by diverse studies, including one that demonstrated that typicality of gay and lesbian friends moderated the effects of heterosexuals' attitudes towards gay and lesbian people in general (Vonofakou, Hewstone, & Voci, 2007), and another which found that typicality and group salience interacted to affect attitudes to people of different nationalities (Brown et al., 1999).

A third, though lesser applied model in regard to group salience, is the common ingroup identity model, originally proposed by Gaertner and Dovidio (2000). According to this model, bias towards outgroup members is reduced when they are seen as part of the ingroup in respect of a common defining feature, replacing ingroup/outgroup categories with a superordinate group.

Pettigrew (1998) attempts to marry these apparently conflicting approaches. He posits a process that requires "full decategorisation, salient categorisation and recategorisation" (p. 76). Step one requires that interactants should attend to personal rather than category-based information. Then, when friendships are formed and if group members are typical, salient categorisation, or the awareness of the "contact partner as a member of the outgroup and not simply a positive individual" (Van Oudenhoven et al., 1996, p. 658), is required. Recategorisation is the ideal state, replacing an ingroup/outgroup with a common group identity, leading to maximum reduction in prejudice although, as Pettigrew (1998) concedes, this may never be achieved. This model is supported by the findings of Voci and Hewstone

(2003) and Ensari and Miller (2002), the latter who argue that attending to personal information, when combined with typicality and salience, “produces an interactive effect that maximally reduces outgroup derogating bias” (p. 315).

Criticisms of Contact Theory

Despite the numerous positive findings in favour of the contact hypothesis, it has not been without its detractors. Forbes (1997), a conflict theorist, argues that “contact has two aspects: the individual aspect and the collective” (p. 166). At the individual level, positive contact between members of different groups may very well reduce prejudice. At the group level, however, an increase in contact is generally associated with increased hostility, as it results in increasing competition between different lifestyles, for limited resources, to maintain dominance, and the like. Thus for Forbes, increased personal liking of an outgroup member via positive contact is an entirely personal matter, which can have no impact on improving relationships between the relevant groups, whose differences stem from the broader political context. This argument is supported by Dixon, Durrheim, and Tredoux (2005, 2007) who opine that contact may reduce personal prejudice, but leave unchanged the ingroup’s insistence on defending its privileged position, and they agree with Forbes that the contact theory gives primacy to individual prejudices while ignoring the more intractable social causes of prejudice.

Following the tenet of recent South African literature (Alexander & Tredoux, 2010; Dixon & Durrheim, 2003; Dixon, Tredoux, & Clack, 2005; Schrieff, Tredoux, Dixon, & Finchilescu, 2005), to the effect that contact situations cannot be divorced from the social and historical contexts, and that experimental conditions under which most contact research is conducted are far removed from lived situations, Fozdar (2011) conducted a qualitative study of friendships between Maori and Pakeha (White) New Zealanders. She examined how individuals make sense of their cross-group friendships in a “settler society where the predominantly British colonisers’ descendants (Pakeha) and the 15 or so per cent of the population who are descendants of the indigenous Maori [live]” (p. 388). Her findings show that, in the first instance, cross-race friendships may leave unaltered prejudiced views, while at the same time they are often marked by intense anxiety and caution.

As regards the former point, Fozdar (2011) demonstrates that a Pakeha respondent, despite having Maori friends, when faced with issues regarding race, continued to justify her conservative views about ‘what’s done is done’. She did this by accepting only information that conformed to her views and by blocking out information which was unsupportive of such views, thereby resisting altering her perspective.

In talking about her cross-race friends, she and other respondents suggested that that they were blind to race, and further that they did not talk about issues of race with such friends. Conservative Pakeha also emphasised shared, or perceived shared, political outlook with their Maori friends, all of which fit neatly into step one of Pettigrew's (1998) 'decategorisation, salient categorisation, and recategorisation' model in that personal information rather than category-based cues appear to be attended to. The problem however is that if race is neither seen nor discussed, and if friendships are formed between those who share political outlooks, step two of the model, which requires categorisation to enable generalisation of positive feelings beyond the interpersonal scenario, may not occur.

Yet, despite this purported invisibilising of race, Fozdar's (2011) findings demonstrate the opposite, with respondents telling of the deliberate avoidance of talking about race for fear of finding that their friend had different views, potentially causing the loss of the friendship, and of the impression management required to appear unprejudiced. One Maori respondent spoke of other aspects of friendship management, such as of being careful not to mix friends from different racial groups who may hold extreme views on race, and of monitoring the views she expressed when with non-Maori friends, saying: "I sort of try to walk the tightrope" (p. 396). Still others (Maori) talked about being unable to completely let go when with their Pakeha friends. The apparent effort expended to invisibilise race, and the guardedness seemingly required around issues of race, suggest that race was ever-present, resulting in respondents being generally ill-at-ease with their cross-group friends. This indicates that the anxiety reduction and increase in self-disclosure, trust, and empathy that friendship is purported to bring about, and through which prejudice is said to be reduced, seems not to happen in practice.

The problem, says Fozdar (2011), is not at the personal level, but at the level of "social relations that infects the interpersonal relationship with the weight of history" (p. 400). Thus, she says: "It is increasingly clear that the friendship relationship is perhaps not the pristine crucible the contact hypothesis predicts will produce attitude change" (p. 398).

It is noteworthy that Fozdar's (2011) findings resonate with some findings in the quantitative literature. Islam and Hewstone (1993) found that interpersonal contact between Muslims and Hindus in Bangladesh was associated with less anxiety than contact where group was salient. Harwood et al. (2005) found that positive contact with grandparents led to reduced anxiety only in cases where group was salient, but they caution that this may be a peculiar aspect of the positive stereotypes of grandparents - warm, caring and non-threatening - and they state that "such effects are less likely in most interethnic contexts, where even

positive stereotypes do not include such warm and tender reactions to the outgroup” (p. 403). Although Voci and Hewstone (2003), in a study on Italians’ attitudes towards immigrants, found that contact where group was salient reduced anxiety more than did interpersonal contact, they acknowledge that the reverse could apply when the minority rather than the majority group is measured, on the basis that minorities tend to report more anxiety than majorities.

Fozdar’s (2011) research too shed light on the different ways in which the minority and majority population groups experienced their cross-race friendships. While Maori respondents were anxious to not have their friends exposed as being prejudiced against them, the Pakeha expended effort in trying to appear unprejudiced. These findings are consistent with the quantitative literature on the subject, according to which “minorities are generally concerned with the detection of prejudiced attitudes from individuals belonging to majorities... [while] the latter are less likely to pay attention to status differences” (Vezzali, Giovannini, & Capozza, 2010, p. 464). Tropp and Pettigrew (2005) assert that this could be one of the reasons why they found in their meta-analysis that contact effects were stronger for majority than minority groups: because of their focus on status differences, minorities may perceive that the optimal contact conditions, in particular equal status of contactants, have not been met, translating into weaker effects for prejudice reduction.

Measures of Friendship

Fozdar’s (2011) respondents defined friendship in a variety of ways, including shared activities and interests, and mutual trust. This has important implications for measures of friendship in quantitative research. In their meta-analysis, Davies et al. (2011) show that different measures of friendship yield different predictions of prejudice reduction. They coded for friendship measures most commonly found in the research literature, namely (a) time spent or engaging in activities with outgroup friends, (b) self-disclosure to outgroup friends, (c) closeness to outgroup friend, (d) inclusion of outgroup friend in sense of self, (e) number of outgroup friends, and (f) percentage of friends who are outgroup members. While all measures yielded significant results, time spent with outgroup friends yielded the highest effect ($r = .27$), followed by self-disclosure. The lowest effect sizes were found for closeness to outgroup friend and inclusion of outgroup friend in sense of self. Davies et al. argue that this demonstrates that it is actual engagement with friends that determines prejudice outcomes.

They opine that a reason why they found larger effect sizes for time spent with and self-disclosure to cross-group friends, could be that in relationships where friends see each other

often and disclose personal information, opportunities arise for group differences to be noticed, making group categories salient after close personal friendships have been built, in accordance with Pettigrew's (1998) decategorisation/categorisation model. This, say Davies et al. (2011), reduces intergroup anxiety and leads to lower outgroup prejudice. Their opinion contrasts with the findings of Fozdar (2011), and these contradictions are, as discussed in the next section, the subject of this research.

Research Aims

Because Davies et al. (2011) suggest that different measures of friendship result in different effect sizes when predicting prejudice, we firstly aimed to employ the four measures of friendship found to best predict prejudice, to test: their independent effects on the friendship – prejudice relationship; the effects of one controlling for the others; and different paths of mediation. These four measures were percentage of cross-race friends, number of cross-race friends out of total friends, time spent with cross-race friends, and disclosure to cross-race friends. It was intended that clarity as to the different effects produced by these different measures would in the future enable a like-for-like comparison among research results, and perhaps lead to a consolidation of instruments used to measure friendship when testing for its relation to prejudice.

Secondly, given the differing findings regarding the effect of group salience, within cross-group friendships, on intergroup anxiety, and the consequential impact on prejudice, we aimed to test: 1) whether cross-group friendships predicted lowered prejudice; and 2) whether this relationship was mediated by intergroup anxiety; and 3) the moderating effect of group salience on intergroup anxiety; and 4) the whether typicality of race moderated the friendship – prejudice relationship. Our intention was to clarify the role of intergroup anxiety and group salience in cross-race friendships and, ultimately, their impact on prejudice.

Finally, since research has demonstrated that group salience may impact anxiety differently according to whether the friends are from minority or majority groups (Voci & Hewstone, 2003), and that contact effects may be stronger for majority than minority groups (Tropp & Pettigrew, 2005), we aimed to determine 1) whether high/low group salience within cross-group friendships affected the two groups' respective anxieties differently; and 2) whether race moderated the friendship-prejudice relationship; and 3) if effect of friendship on prejudice were different for majority and minority groups. Since few studies have examined how the variables of cross-race friendship, intergroup anxiety, group salience, and prejudice affect majority and minority groups in South Africa, and indeed what these terms 'majority'

and minority' mean in the context of South Africa's complex history, we considered that our findings would shed light on these issues.

Method

Design

We employed a 2 x 2 between-subjects factorial design, with high/low group salience and Black/White population groups as the two independent variables. The dependent variables were prejudice and intergroup anxiety.

We used correlation to test the relationship between the predictor variable of friendship and the outcome variable of prejudice, as well as the mediation and moderation effects of intergroup anxiety and group salience, respectively.

Participants

We initially recruited participants from students across the entire University of Cape Town (UCT) by means of poster advertising, and when this method yielded an inadequate sample size (103 responses of which 80 were usable), we recruited further participants from first, second and third year psychology students. A total of 222 participants were recruited, of whom 106 identified themselves as White, 65 as Black, while 51 were from other population groups, such as Coloured (Mixed Race) (although data from this last group were not used for purposes of this research). Ultimately data from 49 Black and 100 White participants were usable as the remaining participants had filled in only their contact details or student number and their population groups.

UCT (2012) has approximately 50% Black students and just over half of its students are women, while the majority of psychology students are White females. According to Statistics SA (2011), Black people make up 79.6% of the South African population, and females comprise 51.3% of the total population, while only 11.8% of the population has any form of tertiary education. The sample was therefore not representative of the population in terms of age, race, gender, and socio-economic status. Nevertheless, it allowed for testing of the relationships under study, and indeed might be a better test bed than the general population in which cross-group friendships are sparse (Tredoux & Finchilescu, 2010).

Materials

Friendship. We used four different measures of friendship.

Number of friends. To measure number of cross-race friends, we followed Smith's (2002) recommendation and used a three-step approach, as follows: "Do you have any good friends that you feel close to? If yes, how many good friends do you have?" We then asked in terms of opposite race, i.e., "how many of your good friends are White/Black?"

Time spent with friends. To measure amount of time spent and activities conducted with cross-race friends, we asked participants: “How often do you spend time with your Black/White friends doing social activities?” (1 = *never* to 5 = *very often*), adapted from Turner, Hewstone, and Voci (2007) ($\alpha = .82$).

Self-disclosure. To measure self-disclosure, we used the six-item scale ($\alpha = .95$) employed by Turner, Hewstone, and Voci (2007), except that we asked for actual instead of intended disclosure. Two questions measured whether friends self-disclose to each other (both items, 1 = *very unlikely*, 7 = *very likely*), two measured frequency of disclosure to outgroup friends, and two measured frequency of disclosure by outgroup friends to self (all items, 1 = *never*, 7 = *all the time*). Where participants stated that they had no cross-race friends, they were not required to answer this question.

Percentage cross-race friends. To measure percentage of cross-race friends, we asked participants: “Please indicate the percentage of your close friends who are Black/White (out of 100)” (Tredoux & Finchilescu, 2010).

Prejudice. Two scales were used to measure prejudice.

Social distance scale. This scale was developed by Bogardus (1925). It consists of six items on a five-point scale. The items measure how much participants would be willing to have an outgroup person in their lives, in extremely intimate to less intimate scenarios. High scores (*very much opposed*) indicate higher social distance, i.e. higher prejudice. “Versions of this scale have been used in South Africa, over a number of years, and researchers invariably report good internal reliability” (Tredoux & Finchilescu, 2010, p. 295).

Affective prejudice scale. We asked respondents to indicate how they felt towards the Black/White group based on six adjectives, graded from 1 to 6, on a continuous bipolar scale. High scores represented strong negative feelings, while two items were reverse scored. This measure has been successfully employed in studies in South Africa (Tredoux & Finchilescu, 2010, Cronbach’s $\alpha = .85$).

Group salience. In order to make race salient to test the effect of group salience on the relationship between cross-race friendship and intergroup anxiety, we started the questionnaire with a vignette employing a ‘typical’ White person in the vignette seen by Black participants, and a ‘typical’ Black person in the vignette seen by White participants.

The experimental condition for White participants contained the following vignette:

You are at a braai in Goodwood on a summer Sunday with some of your friends. A guy introduces himself to you as Thandile Nkomo and says he overheard you talking about UCT. He’s apparently also studying there and you start chatting and find out that you are in some of

the same lectures and that you like and dislike a lot of the same lecturers, and that you share a wide range of interests. As you are chatting someone turns on the TV in the house and the newsreader says President Zuma has just taken his fifth wife. Some people at the braai start laughing. Thandile says: “As usual the Whites laugh at our customs. Isn’t it about time Whites started living according to our rules instead of the other way around?”

In the vignette seen by participants who identified themselves as Black and were assigned to the experimental condition, the name of the protagonist was changed to John Higgins, and the last part was changed to read: John says: “As usual Zuma is a laughing stock. Isn’t it about time Blacks started living according to civilised rules?”

In the control condition, which was identical for all respondents, the vignette ended before the reference to President Zuma on the TV.

To test whether our experimental manipulation had been successful, we measured the strength of ingroup identity, by employing a five-point ten-item scale. Five items measured positive ingroup identity, while another five measured negative ingroup identity, and these were reverse coded. The higher the score, the higher the ingroup identity. The scale was utilised by Tredoux and Finchilescu (2010) in a study of students, and the reliability was .71 for Black and .79 for White participants.

Intergroup anxiety. To measure intergroup anxiety aroused by the vignettes, we asked participants, “How would you feel if you were in a group with Black/White students?” They then indicated the extent to which they were *nervous*, *pleased* (reverse scored), *scared*, *at ease* (reverse scored), *defensive*, and *unconfident*, on a scale of 1 to 5, with higher scores indicating higher anxiety. These items were adapted from Stephan and Stephan (1985) and have been used in South Africa to reliable effect (Swart et al., 2011).

Typicality. We tested whether the participants regarded the characters in the vignette as typical of their respective race groups, by asking White participants: “Do you perceive Thandile as a typical Black person?” and Black participants: “Do you perceive John as a typical White person?”

Similarity. In order to determine whether participants regarded the characters in the vignettes as similar to their own cross-race friends, we had them rate, on a 5-point scale (5 = *strongly agree* to 1 = *strongly disagree*) whether the characters were similar to their cross-race friends.

Procedure

We tested six salience-invoking vignettes on four Black and four White people recruited by means of convenience sampling prior to the commencement of the study. The vignettes,

referred to in the Measures section of this paper, were chosen by the majority of both groups as invoking group salience (Appendix A).

We mounted the survey (Appendix B) on SurveyMonkey, a survey-hosting website. We recruited participants by means of posters (Appendix C) put up at key sites on campus and at the larger residence halls, with the offer of a Google Nexus Tablet (value R3,000) following a random draw at the survey close, and a chance to be entered again for this prize for every five participants referred to the survey (identification of participant and referee was via cell phone number or e-mail address). At the closing date, the sample size was inadequate, resulting in us recruiting further students from first, second and third year psychology students by offering SRPP credits (points allocated to undergraduate psychology students for compulsory participation in research studies).

Upon opening the survey, participants were asked to complete a consent form (Appendix B); this was a compulsory field and, unless completed, participants could not proceed. This consent form informed participants that they could opt out at any time, without affecting their relationship with the university. Further, they were assured that any identifying details, such as e-mail address and student number, were to be used for purposes only of granting the prize or of allocating SRPP points, and that only the researchers would have access to the data, which was password protected. After completing the consent form, participants were required to identify themselves as Black, White, or from neither the Black nor White population groups. Participants who identified themselves as belonging to either the Black or White population groups were randomly assigned to the control or experimental condition for their respective population groups. Participants who identified themselves as belonging to neither the Black nor the White population group, were required to state whether their birthdays fell on odd or even dates, with those indicating odd dates being assigned to the White group, and those indicating even dates being allocated to the Black group. Data from these 'other' participants are not discussed in this report, as these participants were too few in number and not part of the manipulation. We took standard precautions against response set (e.g., by reversing direction of scale items).

Data Analysis

We used SPSS Version 21.0 (IBM Corp., 2012) for analyses of data. We applied pairwise exclusion in all cases where data were missing.

We inspected histograms to confirm normality of distribution of all variables in order to ensure that we were able to employ parametric tests. We excluded from our analysis variables that were skewed and unable to be transformed.

We used regression analysis to test the relationship between the variables of friendship and prejudice, the mediation effects of intergroup anxiety, and the moderation effects of intergroup anxiety and race. In all cases we ensured that 1) there was some correlation between predictor and criterion variables and ruled out multicollinearity by ensuring that intercorrelation did not exceed .7 and that Tolerance levels were close to 1 and VIFs less than 10; and that 2) histograms of residuals showed that data were normally distributed; and that 3) residual and partial plots showed no heteroscedasticity. Further, we checked Cooks and Mahalanobis distances to ensure that no one case exerted an undue influence on the results.

We measured interaction effects of race and group by means of Factorial ANOVA, and tested differences between group scores by means of independent sample t-tests. We ensured that assumptions of normality and homogeneity were met in all cases.

Results

Table 1 contains descriptive statistics for variables employed in our analyses.

Table 1

Descriptive Statistics for Variables Used in Analyses

Variables	Black						White					
	Experimental (n = 26)			Control (n = 23)			Experimental (n = 48)			Control (n = 52)		
	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>
Friendship	22.7	7.92	10	26.18	9.56	11	31.5	6.20	18	29.12	7.02	26
Affective Prejudice	14.27	4.95	26	15.45	5.03	20	15.12	6.00	47	13.25	4.99	52
Social Distance	14.19	4.02	26	13.39	4.62	23	12.72	5.13	47	12.25	4.74	51
Intergroup Anxiety	12.38	4.98	26	15.64	5.55	22	14.11	4.94	48	12.47	4.85	51
Group Saliency	43.00	4.47	25	39.61	5.44	23	38.40	4.13	47	36.80	4.73	51
Typicality	3.04	1.31	25	2.38	1.28	21	2.67	1.19	48	2.86	1.10	52
Similarity	2.24	1.10	17	3.21	0.92	19	2.52	0.88	44	3.19	1.37	52

Friendship Measures

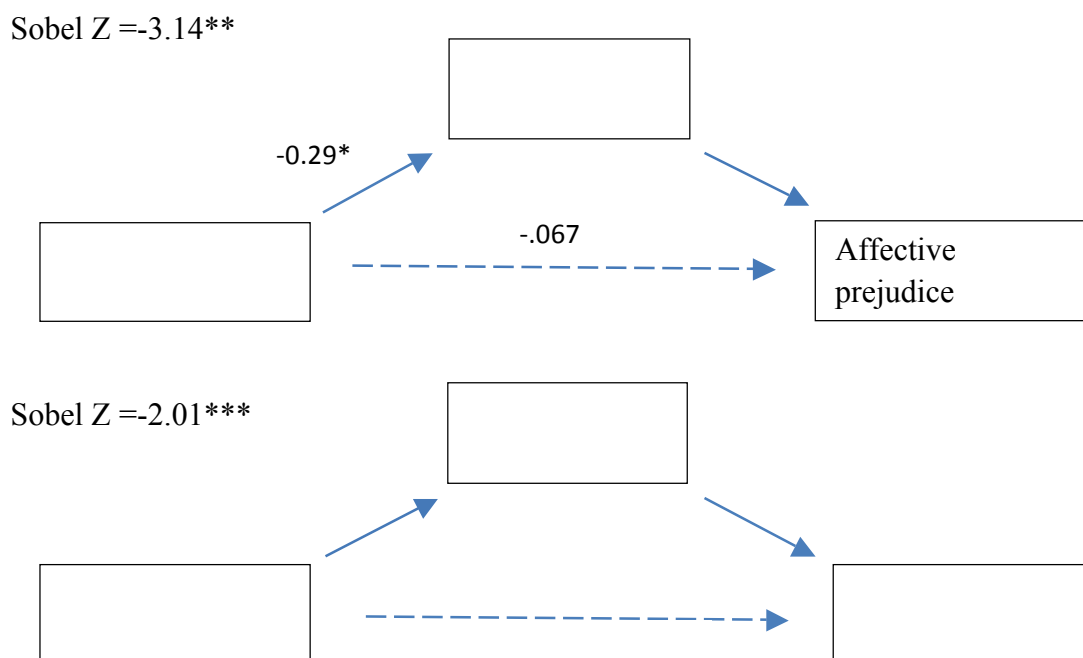
Although our intention was to regress the four friendship measures suggested by Davies et al. (2011) as predicting the greatest variance in prejudice, on prejudice, both the measures of number of cross-race friends, out of total friends, and percentage cross-race friends, as reported by participants, yielded data extremely skewed to the left, for both population groups (percentage friends Black $M = 14.71\%$, $SD = 24.38$, White $M = 10.05\%$, $SD = 15.38$; number of friends out of total friends Black $M = 14.02$, $SD = 22.24$, White $M = 10.29$, $SD = 14.68$). We recoded these scores into ordinal scales, but this did not improve their distribution, resulting in us having to leave them out of the regression analysis.

Relationship between Friendship and Prejudice

Of the remaining two friendship measures (time spent with friends and self-disclosure), only self-disclosure significantly predicted both measures of prejudice [$R^2 = .06$, $F(1,63) = 4.26$, $p = .04$, $\beta = -0.25$ regressed on social distance, and $R^2 = .13$, $F(1,62) = 9.10$, $p = .004$, $\beta = -0.36$ regressed on affective prejudice], while time spent with friends did not significantly predict either measure of prejudice [$R^2 = .01$, $F(1,61) = 0.33$, $p = .57$, $\beta = -0.07$ regressed on social distance, and $R^2 = .01$, $F(1,60) = 0.05$, $p = .81$, $\beta = -0.03$ regressed on affective prejudice] (Appendices D and E display residual histograms and scatterplots). Given these findings, we used self-disclosure as the predictor in the remainder of the analysis. We then tested whether time spent with friends predicted self-disclosure, and we found that it significantly and positively predicted self-disclosure [$R^2 = .14$, $F(1,61) = 9.89$, $p = .003$, $\beta = 3.74$].

Anxiety as a Mediator of Friendship-Prejudice Relationship

Next, we tested whether intergroup anxiety mediated the relationship between cross-race friendship and prejudice (Appendices F and G display residual histograms and scatterplots). We found that intergroup anxiety fully mediated this relationship, and that this mediation was significant [$R^2 = .14$, $F(2,62) = 5.05$, $p = .009$ for social distance, and $R^2 = .40$, $F(2,61) = 20.66$, $p < .001$ for affective prejudice] (Figure 1).



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

Figure 1. Intergroup anxiety fully and significantly mediates the relationship between friendship and prejudice, as measured by affective prejudice and social distance.

Group Salience as a Moderator of Friendship-Anxiety Relationship

We determined, by means of independent sample t-tests, that group identity was significantly higher in the experimental ($M = 39.97$, $SD = 4.76$) than in the control condition ($M = 37.68$, $SD = 5.09$), and the effect size was moderate [$t(145) = 2.82$, $p = .005$, $d = .47$]. As this was our manipulation check, and thus having determined that our experimental manipulation was successful, we then tested whether, group salience moderated the relationship between cross-race friendship and anxiety. We first centred the continuous variable, self-disclosure, and created an interaction term by multiplying the scores for centred self-disclosure and group identity. We then ran a regression analysis by entering the centred variable and group identity in Block 1, and the centred variable, group identity and the interaction term, in Block 2, and regressing these on anxiety (Appendix H displays residual histograms and scatterplots). The results showed that R^2 change was .12 which, though small, was significant [$F(1,59) = 10.37$, $p = .002$]. Table 2 contains regression coefficients of each predictor variable. While salience of group did not significantly predict anxiety, the moderation was significant. The total model predicted 32.6% of the variance in intergroup anxiety [$F(3,59) = 9.50$, $p < 0.001$]. We recoded group identity into three categories (low, medium, and high) for purposes of interpreting the moderation effect visually. This is presented in Figure 2, which shows that the better the friendship (as measured by self-disclosure), the lower the levels of intergroup anxiety, and this is mediated by high group salience.

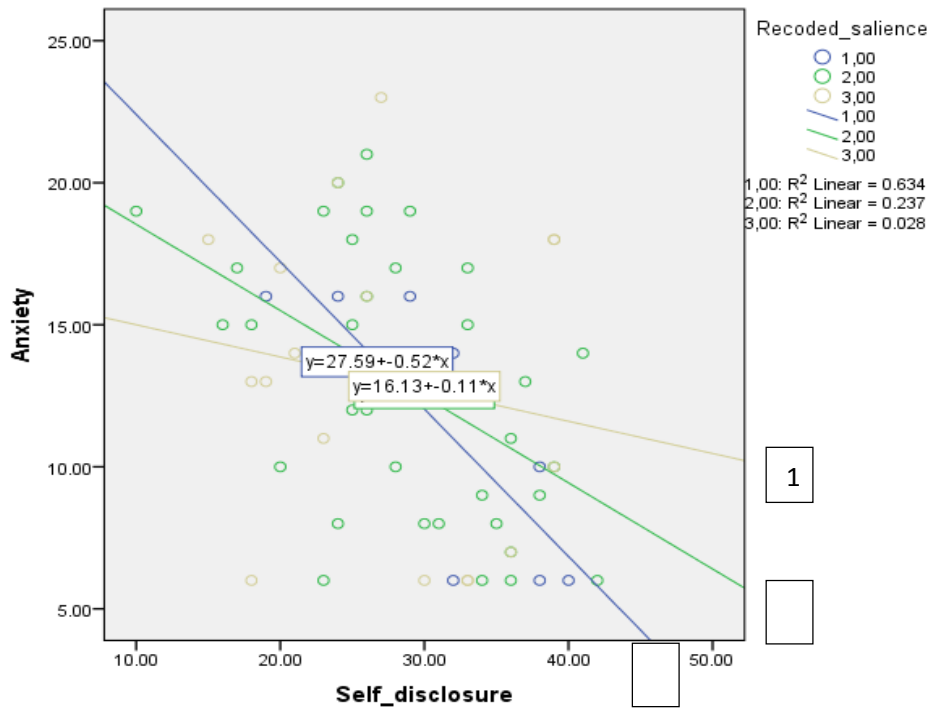
Table 2

Prediction of Moderation Effects of Group Salience on Anxiety: Regression Coefficients

Variable	Model 1			Model 2		
	<i>B</i>	<i>SE B</i>	β	<i>B</i>	<i>SE B</i>	β
Self-disclosure	-0.30	0.08	-0.46*	-1.71	0.44	-2.62*
Group salience	-0.11	0.12	-0.11	-0.116	0.11	-0.115
Self-disclosure x group identity				0.04	0.01	2.19**

Note: Self-disclosure was centred at its mean

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



Note: 1 = low salience, 2 = moderate salience, 3 = high salience

Figure 2. Group salience moderates the effect of self-disclosure on intergroup anxiety.

Typicality as a Moderator of Friendship-Prejudice Relationship

In order to test whether typicality moderated the friendship-prejudice relationship, we first ran independent sample t-tests to determine whether the participants regarded the characters in the vignette as more typical of their respective groups in the control than in the experimental condition. We found that there was no significant difference between the two conditions [$t(144) = 0.34, p = .73$]. We were therefore unable to test the moderating effects of typicality. However, we were puzzled by our finding given that we had, as discussed earlier, found a significant difference between the two conditions in respect of group salience which we considered could only have resulted from our experiment. Because we had asked participants whether they regarded the characters in the vignette as similar to their own cross-race friends we tested, by means of independent sample t-tests, the difference between the scores for similarity to own cross-race friends in the two conditions. We found that $t(130) = 3.82, p < .001, d = .67$, so that there was a significant and moderate-sized difference between the control group ($M = 3.19, SD = 1.27$) and the experimental group ($M = 2.44, SD = 0.94$). This implies that even though participants did not regard the characters in the vignettes as more typical of their respective race groups in the experimental condition, the control group did regard them as more similar to their own cross-race friends than did the experimental group.

Effects of Race and Group Salience on Intergroup Anxiety

Next, we tested the effects of race and condition, on anxiety, by means of a Factorial ANOVA. Our results show that while there were no significant main effects for either race [$F(1,142) = 0.67, p = .42$] or for condition [$F(1,142) = 0.83, p = .37$], there was a significant, if small, interaction effect [$F(1,142) = 7.63, p = .007, \eta^2_p = .05$]. To determine how this effect operated, we ran planned comparisons and found that the significant differences lay between the Black ($M = 15.64, SD = 5.55$) and White group ($M = 12.47, SD = 4.85$) in the control condition [$F(1,142) = 5.75, p = .02$], and in the Black group between the experimental ($M = 12.38, SD = 4.98$) and control conditions ($M = 15.64, SD = 5.55$) [$F(1,42) = 4.57, p = .04$]. Thus, for the Black group, when group salience was low, intergroup anxiety was high, while the reverse was found for the White group. Further, while the difference between the measures of anxiety for the White group in both conditions was not significant, this was not true of the Black group, whose intergroup anxiety was significantly higher in the control than in the experimental condition. Figure 3 demonstrates this finding graphically.

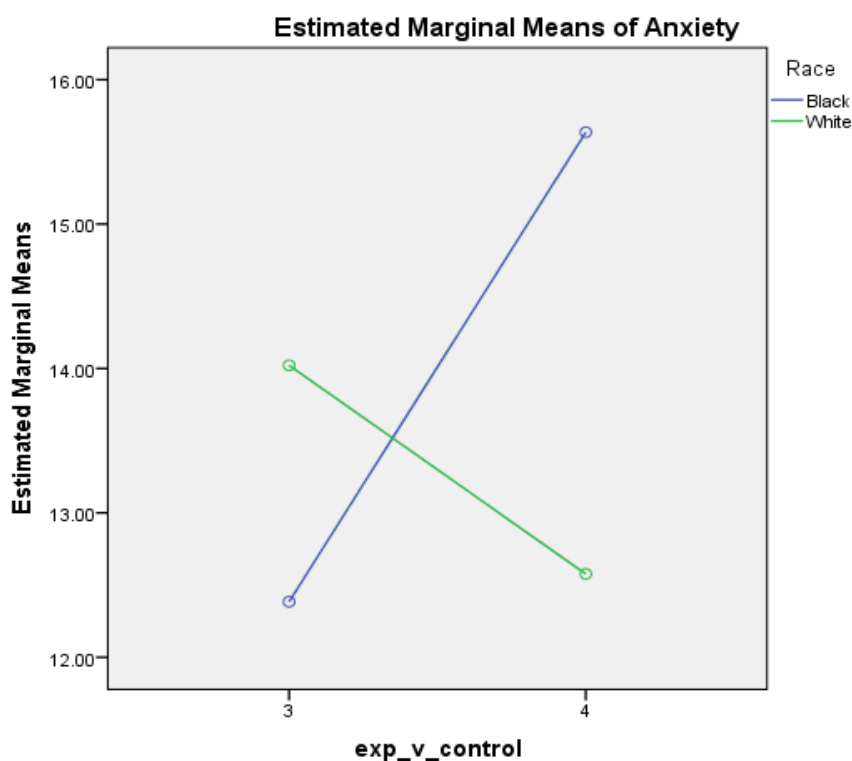


Figure 3. Black group experiences significantly less anxiety in experimental than in control condition, while difference between Black and White group in the control condition is significant.

Effects of Race on Prejudice

We first determined, by means of regression analysis, whether race moderated the relationship between friendship and prejudice. We centred the continuous variable, friendship, and computed an interaction term for friendship and race, by multiplying their scores. We then entered the centred variable and race into Block 1, and the centred variable, race and the interaction term, into Block 2, and regressed these on social distance and affective prejudice, our two measures of prejudice (Appendices I and J display residual histograms and scatterplots). Results showed that race did not moderate the relationship between friendship and either social distance [R^2 change = .00, $F(1,61) = 0.03$, $p = .87$] or affective prejudice [R^2 change = .00, $F(1,60) = 0.03$, $p = .86$].

Next, in order to determine whether the effect sizes of the friendship-prejudice relationship were different for the two population groups, we split the file according to race. We determined that, as regards affective prejudice, for the Black group the effect was insignificant [$R^2 = .08$, $F(1,19) = 1.56$, $p = .23$], while for the White group the effect was significant, but small [$R^2 = .12$, $F(1,41) = 5.71$, $p = .02$]. For social distance, neither result was significant [$R^2 = .03$, $F(1,19) = 0.48$, $p = .49$ for the Black group, and $R^2 = .05$, $F(1,42) = 2.12$, $p = .15$ for the White group] (it should be noted that degrees of freedom are low because of the low number of cross-race friends, resulting in a low number of scores for self-disclosure to cross-race friends. Further, the White sample size was more than double the Black sample size for purposes of this analysis).

Discussion

Friendship Measures

One of our research aims was to use in our analysis the four measures of friendship found by Davies et al. (2011) to be the best predictors of prejudice, and to heed their call to examine several measures at once to “identify both unique contributions of each aspect of friendship controlling for the others as well as potential patterns of interaction among processes and of mediation” (p. 345). The fact that the data for number and percentage of cross-group friends were extremely skewed and unable to be transformed, meant that we were unable to use these two measures of friendship in our analysis. This finding of low numbers of cross-race friends for both Black and White participants is unfortunately not that different from that which Gibson (2004) found almost a decade ago. While Black people make up the majority of the population (79.6% according to the latest census conducted by Statistics SA, 2011) so that opportunities for friendships with White group members would necessarily be

limited, the reverse does not apply. This issue is addressed in our Limitations and Recommendations section.

Further, although another friendship measure, time spent with outgroup friends, did not significantly predict prejudice, it did significantly and positively predict self-disclosure to such friends, indicating that the more time one spends with cross-group friends, the more one self-discloses to them. This is entirely consistent with the literature on the topic according to which neither quality nor frequency of contact alone is sufficient for prejudice reduction; rather it is the two combined which have optimal effect (Voci & Hewstone, 2003).

Relationship between Variables

We found that self-disclosure to outgroup friends significantly negatively predicted prejudice, so that the skewness of distribution of data for quantity of friends tells us that, while the majority of participants have few cross-race friends, they appear to self-disclose to those that they do have sufficiently to affect their attitudes. This points to the quality rather than the number of friendships as being important in predicting prejudice, and to the necessity for contact to be meaningful, as Allport (1954/1979) originally suggested. The research literature has emphasised the importance of self-disclosure as a predictor of reduced prejudice (Turner, Hewstone, & Voci, 2007; Turner, Hewstone, Voci, Paolini, et al., 2007). According to Ensari and Miller (2002), it is this very aspect of friendship that introduces the personalisation element, the first step in the process towards reduced prejudice (Pettigrew, 1998). By enabling contactants to focus on the personal aspects of each other as individuals, disclosure reduces threatening aspects of the interaction, and encourages a process that is reciprocal, thereby promoting mutual trust, and with it a positive attitude towards the discloser (Ensari & Miller, 2002).

Our findings regarding the different measures of friendship show that time spent with cross-race friends, and the self-disclosure which spending time with such friends promotes, are together important in reducing prejudice. This is in accordance with the findings of Davies et al. (2011), to the effect that time spent with cross-group friends, and self-disclosure to such friends, were the measures of friendship that best predicted prejudice. Davies et al. suggest that the reason for this could be that these behavioural aspects of the friendship, which indicate commitment to the relationship, create the conditions necessary for positive emotions to form and to generalise beyond the friendship.

It is noteworthy that Fozdar (2011) found that beneath the text of trust and closeness which her respondents reported, ran the subtext that cross-race friendships induced high levels of anxiety and guardedness. Based on our findings, however, it appears that that cross-race

friendships, though few in number, invite reciprocal disclosure and trust, and ultimately lowered prejudice.

We found further that intergroup anxiety fully and significantly mediated the relationship between cross-group friendship and both our measures of prejudice. Intergroup anxiety comprises of fear of negative consequences for oneself (e.g., saying or doing something inappropriate or being on the receiving end of such speech or behaviour), and negative evaluations by members of both the outgroup (e.g., of being stereotyped) and the ingroup (e.g., of being rejected for intermingling). It may lead for example to simplified cognitive processing and hence stereotyping, or to perceived threats to group identity and hence the exacerbation of ingroup bias (Stephan & Stephan, 1985). Positive contact between cross-group friends has been shown to alleviate intergroup anxiety, which then allows for complex cognitive processing and in turn reduced stereotyping and greater attention to personal details, step one of the process to lowered prejudice (Miller, 2002; Pettigrew, 1998). Friendship, which embodies the optimal contact conditions, should therefore successfully predict this relationship (Turner, Hewstone, Voci, Paolini, et al., 2007).

We also found that group salience, which was higher in the experimental condition, significantly moderated the relationship between friendship and anxiety in that, at higher levels of friendship/self-disclosure and higher group salience, intergroup anxiety was reduced. These findings are consistent with the theory advanced by Hewstone and Brown (1986), to the effect that high group salience in cross-group friendships reduces intergroup anxiety, by drawing attention to differences and removing the threat to the groups' distinctiveness. Further, it is only when connections are made between outgroup friends and their relationship to the outgroup, that the positive feelings toward these friends generalise to the rest of the outgroup and translate into reduced prejudice. These findings, that high group salience moderates the friendship-anxiety relationship, are however in contradistinction to the findings of Fozdar's (2011) qualitative research, wherein she found that intergroup friendships were fraught with tension and anxiety, with tremendous effort expended to invisibilise race which, despite respondents' protestations to the contrary, appeared to be the 'elephant in the room'.

Turner, Hewstone, Voci, Paolini, et al. (2007) argue that one way of ensuring that group salience is high is to "ensure that those involved in the contact are perceived as sufficiently typical of the group as a whole" (p. 239), while Brown et al. (1999) state that "typicality is linked to salience and thence to generalization" (p. 745). This is because contactants need to be seen as exemplars of their respective groups in order for the positive effects of the contact scenario to generalise to the rest of the outgroup (Johnston & Hewstone, 1992). While we

found that group salience was significantly higher in the experimental than in the control condition (across both population groups), we found no significant difference between the two conditions in respect of participants' perception of the typicality of the characters in the vignettes. The issue was therefore how to explain the difference in group salience in the two conditions when the characters in the vignettes were seen as equally typical in both. We had asked the participants whether they considered the characters to be similar to their own cross-race friends, and found that they regarded the characters as significantly more similar to their own cross-race friends in the control than in the experimental condition. This perhaps implies that participants saw the characters as less typical in the control than in the experimental condition. It may therefore have been that the participants did not want to appear racist by commenting directly on the typicality or otherwise of the vignette characters. Thus it may be that our results do show (if indirectly) that typicality is necessary for group salience to be invoked.

In summary, our findings align with Pettigrew's (1998) model for friendship to lead to reduced prejudice, namely that the contact situation should facilitate friendship potential and, once friendships are formed, high group salience is then required for prejudice towards the outgroup to be reduced.

We then turned our attention to understanding the effects of Black/White race on our results.

Effects of Race on Variables under Study

We found that while race did not significantly moderate the relationship between friendship and anxiety, it did interact with the conditions to result in differences between the Black and White groups in the conditions of high and low group salience. While the Black group experienced lower (though not significantly lower) anxiety than the White group in the experimental condition, this was not true of the control condition, where the Black group experienced significantly higher anxiety than the White group. As we have discussed earlier, research suggests that higher group salience leads to lower intergroup anxiety in cross-group contact (Hewstone & Brown, 1986), so that the results for the Black group are explicable in terms thereof. However, some argue that high group salience may not moderate the friendship-anxiety relationship in all cases, including those where the minority rather than majority group is measured (Voci & Hewstone, 2003). Islam and Hewstone (1993) suggest that minorities tend to experience more anxiety than majorities, while Gaertner and Dovidio (2000) state that minorities experience more outgroup distrust. This may explain why we found that for the White group, inter-group anxiety was higher at higher levels of group

salience, when cues as to group differences were evident. This finding may be surprising given that, while the White population is and always has been the minority in numerical terms, it has enjoyed majority status in all other respects. The following statement by Swart et al. (2011) may shed light on this apparent discrepancy:

These speculations about potential contact effects as a function of group status are, however, problematic within the South African context where the nature of one's group status can shift substantially as a function of the context ... within which the labels of "majority" and "minority" are assigned. (p. 1235)

While the White population may still be economically dominant, White people are cognisant of their minority numerical status and are aware that their economic dominance will not last indefinitely. Their increased anxiety in situations which call attention to group differences may be understood in terms thereof. This is entirely in accordance with the theory that group salience functions to reduce intergroup anxiety by reducing threats to a group's distinctiveness (Hewstone & Brown, 1986); where on the other hand it functions to increase threats to distinctiveness, as in the case of the threat to the majority status that the White population has enjoyed, increased anxiety may be the outcome, as we found in our research. What this tells us is that findings regarding the contact hypothesis cannot be understood without embedding them in the context in which they arise, which lends credence to Fozdar's (2011) caution that the contact theory cannot be divorced from the wider socio-economic situation.

As regards the effect of race on the friendship – prejudice relationship, we found that race did not significantly moderate this relationship so that, regardless of race, cross-race friendship led to reduced prejudice. In analysing effect sizes, we found that the effects of friendship on affective prejudice were significant (but small) for the White group, but not the Black group. Tropp and Pettigrew (2005) noted that the effects of contact are weaker for minority than majority groups, possibly because minority groups do not perceive that the optimal contact conditions, notably equality of status between interactants, are met. Further, Hewstone, Rubin, and Willis (2002) state that members of minority groups show more ingroup bias when status boundaries are considered illegitimate. Based on these theories, and given the historical inequality of status between the Black and White populations in South Africa, it is unsurprising that contact effects were insignificant for the Black participants (although it is unclear why this was also the case for the measure of social distance for White

participants). While some may argue that the point of contact is primarily to change the attitudes of the dominant majority group (Voci & Hewstone, 2003), as we have discussed previously, in the case of South Africa, clear-cut lines between majority and minority groups are not easily located, and if contact is to be effective at reducing prejudice, it should significantly impact the attitudes of both groups.

Limitations and Future Directions

A drawback of the current research is tied to the sampling population. Given that the majority of psychology students are females, and that women are more likely to self-disclose than men (Fehr, 2004), the results regarding self-disclosure, our measure of friendship, do not necessarily present a balanced picture. Further research should therefore obtain a sample size that is balanced in terms of gender.

Because of the low number of cross-race friends of members of both population groups, we were unable to use the measures of number/percentage of cross-race friends in our analysis to determine how these predicted prejudice. While not necessarily a limitation of our research per se, given South Africa's racially divisive history, such analysis would have provided worthwhile information. Since we have demonstrated that cross-race friendship predicts reduced prejudice, the factors inhibiting the formation of cross-race friendships require further and deeper investigation. Qualitative analysis may prove a rich source of information in this regard.

About, Mendelson, and Purdy (2003) caution about using self-report measures of friendship, and Davies et al. (2011) state that "researchers should assess some of the more subjective factors [to measure friendship] using more robust methods than the typical self-report" (p. 345). We would argue that this applies not only to friendship measures, but to all other measures where participants would be inclined to underreport so as not to appear prejudiced. Our findings regarding the absence of difference between the control and experimental groups on the issue of typicality, notwithstanding the significant difference between the two groups in respect of group salience, is a case in point. As Hewstone et al. (2002) state: "Ingroup favouritism is generally not found when participants are forced to rate target groups on negative as opposed to positive scales or to make negative rather than positive allocations to ingroup and outgroup members" (p. 586). Future research should therefore employ questions that act as a check on self-report bias (for example our question regarding similarity of characters in the vignettes to cross-race friends), and/or frame the questions in such a way that they do no call on participants' bias.

Finally, given some of our anomalous findings regarding the effects of race and group status on intergroup anxiety and prejudice, we suggest that further research on race relations in South Africa examines in more depth how South Africans experience this thorny issue, as Fozdar (2011) has done in the context of New Zealand.

In conclusion, we believe that we have demonstrated that, notwithstanding the peculiarities of South Africa's race-relations landscape, the contact hypothesis, in particular its emphasis on intergroup friendships and their role in reducing prejudice, is as valid here as it is in other contexts. In light of this, and given that we have found that members of both Black and White population groups have low numbers of cross-race friends even in settings where one would expect otherwise, future research should focus on opportunities and barriers to fostering friendships among Black and White South Africans.

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Appendix A
Pilot Vignettes
Piloted on Black Persons

Vignette 1

You are at a braai in Goodwood on a summer Sunday with some of your friends. A guy introduces himself to you as John Higgins and says he overheard you talking about UCT. He's apparently also studying there and you start chatting and find out that you are in some of the same lectures and that you like and dislike a lot of the same lecturers, and that you share a wide range of interests. As you are chatting someone turns on the TV in the house and the newsreader says that taxis are blockading the city in protest against something that you don't catch, and it's uncertain when the blockade will end. The newsreader says that many people who take taxis will be unable to get to work. John swears about these damn Black taxis, hogging our roads and dictating to us, and making life a misery for drivers.

Vignette 2

You are at a braai in Goodwood on a summer Sunday with some of your friends. A guy introduces himself to you as John Higgins and says he overheard you talking about UCT. He's apparently also studying there and you start chatting and find out that you are in some of the same lectures and that you like and dislike a lot of the same lecturers, and that you share a wide range of interests. As you are chatting someone turns on the TV in the house and the newsreader says that President Zuma has just taken his fifth wife. Some people at the party start laughing. John says: "As usual Zuma is a laughing stock. When will Blacks live according to civilised rules?"

Vignette 3

You are at a braai in Goodwood on a summer Sunday with some of your friends. A guy introduces himself to you as John Higgins and says he overheard you talking about UCT. He's apparently also studying there and you start chatting and find out that you are in some of the same lectures and that you like and dislike a lot of the same lecturers, and that you share a wide range of interests. As you are chatting someone turns on the TV in the house and the newsreader says that people in Clifton have complained to their municipality about a ritual slaughter that took place at their neighbour. When asked for a response, the neighbour said

that the complainants are simply being unneighbourly. John says: “Typical Blacks, complaining about unneighbourliness when they continue to perform barbaric customs in a civilised place”.

Vignette 4

You are at a braai in Goodwood on a summer Sunday with some of your friends. A guy introduces himself to you as John Higgins and says he overheard you talking about UCT. He’s apparently also studying there and you start chatting and find out that you are in some of the same lectures and that you like and dislike a lot of the same lecturers, and that you share a wide range of interests. As you are chatting someone turns on the TV in the house and the newsreader says that the body corporate in a block of flats in Sea Point has complained to their municipality about ten people occupying an apartment for two. John says: “Typical Blacks, complain about living in poverty but look at what happens when they live in luxury?”

Vignette 5

You are at a braai in Goodwood on a summer Sunday with some of your friends. A guy introduces himself to you as John Higgins and says he overheard you talking about UCT. He’s apparently also studying there and you start chatting and find out that you are in some of the same lectures and that you like and dislike a lot of the same lecturers, and that you share a wide range of interests. As you are chatting someone turns on the TV in the house and the newsreader says that someone - you don’t catch the name - has said that Mandela was too soft on Whites. John shakes his head, saying: “The Whites have paid plenty for apartheid. Pale males can’t find jobs and crime has meant that we can’t live as we used to. Yet look at the rich Blacks with their fancy cars and homes.”

Vignette 6

You are at a braai in Goodwood on a summer Sunday with some of your friends. A guy introduces himself to you as John Higgins and says he overheard you talking about UCT. He’s apparently also studying there and you start chatting and find out that you are in some of the same lectures and that you like and dislike a lot of the same lecturers, and that you share a wide range of interests. As you are chatting someone turns on the TV in the house and the newsreader says that parliament has just passed a law that allows the government to take back White land at market value. John says: “Just great! What exactly are these Blacks capable of doing with the land? Time to leave the country.”

Piloted on White Persons

You are at a braai in Goodwood on a summer Sunday with some of your friends. A guy introduces himself to you as Thandile Nkomo and says he overheard you talking about UCT.

He's apparently also studying there and you start chatting and find out that you are in some of the same lectures and that you like and dislike a lot of the same lecturers, and that you share a wide range of interests. As you are chatting someone turns on the TV in the house and the newsreader says that taxis are blockading the city in protest against something that you don't catch, and it is uncertain when the blockade will end. The newsreader says that many people who take taxis will be unable to get to work, while car owners are furious. Thandile swears about these damn Whites who complain about being unable to drive their cars to work while Blacks still have no transport.

Vignette 2

You are at a braai in Goodwood on a summer Sunday with some of your friends. A guy introduces himself to you as Thandile Nkomo and says he overheard you talking about UCT. He's apparently also studying there and you start chatting and find out that you are in some of the same lectures and that you like and dislike a lot of the same lecturers, and that you share a wide range of interests. As you are chatting someone turns on the TV in the house and the newsreader says that President Zuma has just taken his fifth wife. Some people at the party start laughing. Thandile says: "as usual the Whites laugh at our customs, but why should we Blacks have to live according to their rules?"

Vignette 3

You are at a braai in Goodwood on a summer Sunday with some of your friends. A guy introduces himself to you as Thandile Nkomo and says he overheard you talking about UCT. He's apparently also studying there and you start chatting and find out that you are in some of the same lectures and that you like and dislike a lot of the same lecturers, and that you share a wide range of interests. As you are chatting someone turns on the TV in the house and the newsreader says that people in Clifton have complained to their municipality about a ritual slaughter that took place at their neighbour. When asked for a response, the neighbour said that the complainants are simply being unneighbourly. Thandile says: "Typical Whites, complaining about neighbours performing African customs while living on African soil".

Vignette 4

You are at a braai in Goodwood on a summer Sunday with some of your friends. A guy introduces himself to you as Thandile Nkomo and says he overheard you talking about UCT. He's apparently also studying there and you start chatting and find out that you are in some of the same lectures and that you like and dislike a lot of the same lecturers, and that you share a wide range of interests. As you are chatting someone turns on the TV in the house and the newsreader says that the body corporate in a block of flats in Sea Point has complained to

their municipality about ten people occupying an apartment for two. Thandile says: “Typical Whites, two people living in huge luxurious flat while complaining about Black people cramping their style.”

Vignette 5

You are at a braai in Goodwood on a summer Sunday with some of your friends. A guy introduces himself to you as Thandile Nkomo and says he overheard you talking about UCT. He’s apparently also studying there and you start chatting and find out that you are in some of the same lectures and that you like and dislike a lot of the same lecturers, and that you share a wide range of interests. As you are chatting someone turns on the TV in the house and the newsreader says that someone - you don’t catch the name - has said that Mandela was too soft on the Whites. Thandile nods his head, saying: “The Whites should have been made to pay more for apartheid; still in the same cushy jobs and living the same luxurious lifestyles, while we Blacks continue to live in poverty”.

Vignette 6

You are at a braai in Goodwood on a summer Sunday with some of your friends. A guy introduces himself to you as Thandile Nkomo and says he overheard you talking about UCT. He’s apparently also studying there and you start chatting and find out that you are in some of the same lectures and that you like and dislike a lot of the same lecturers, and that you share a wide range of interests. As you are chatting someone turns on the TV in the house and the newsreader says that parliament has just passed a law that allows the government to take back White land at market value. Thandile says: “Great! Once we’ve taken back the land the Whites stole, we can look after ourselves. Watch the Whites say how they will be leaving the country.”

Appendix B

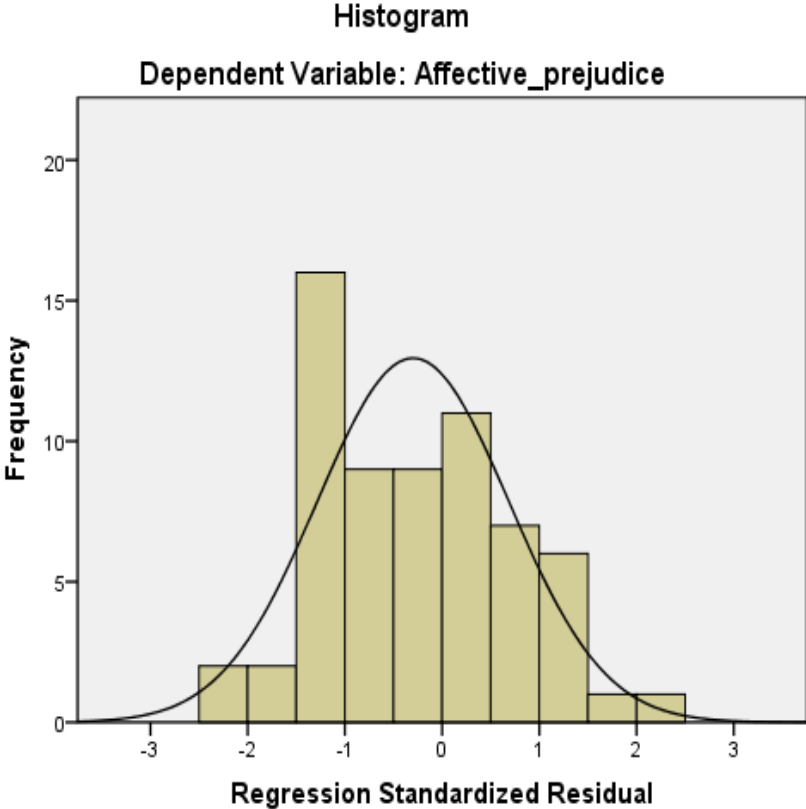
Consent Form and Questionnaire

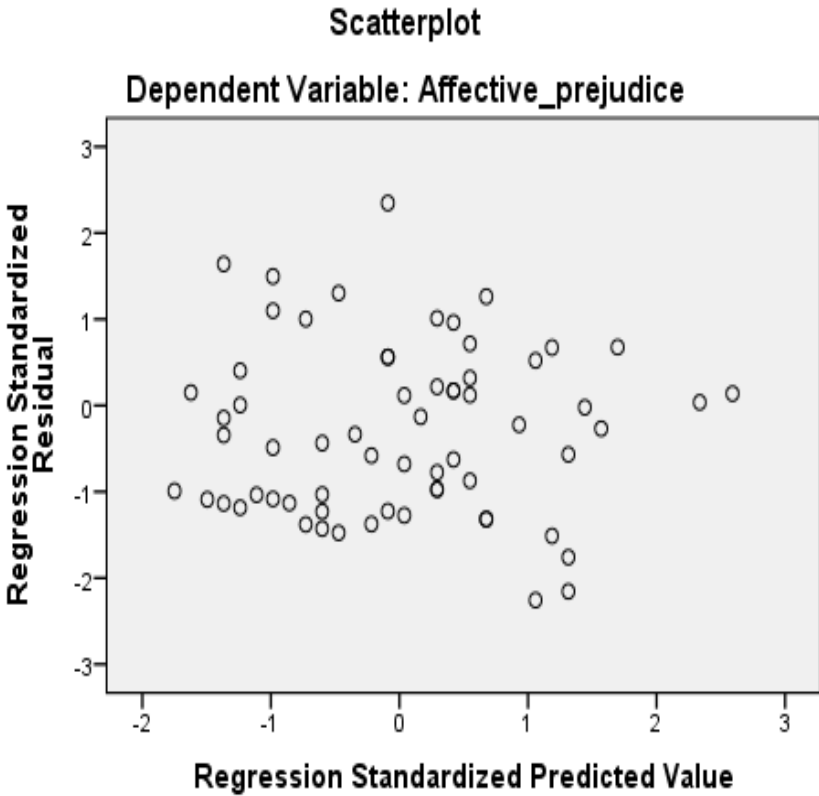
Appendix C

Poster Advertising Survey

Appendix D

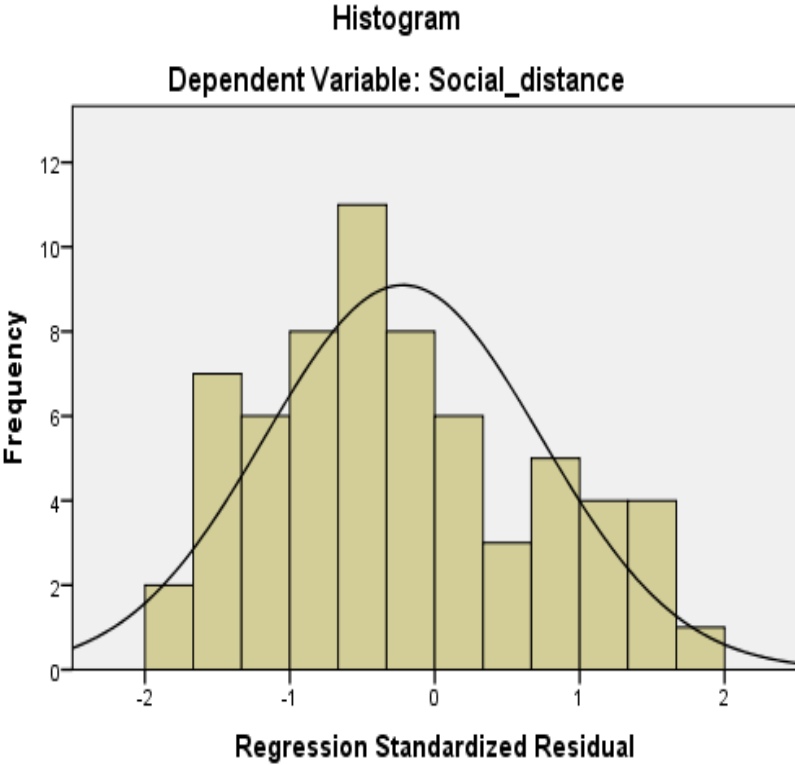
Histograms and Scatterplots of Residuals for Regression of Friendship on Affective Prejudice

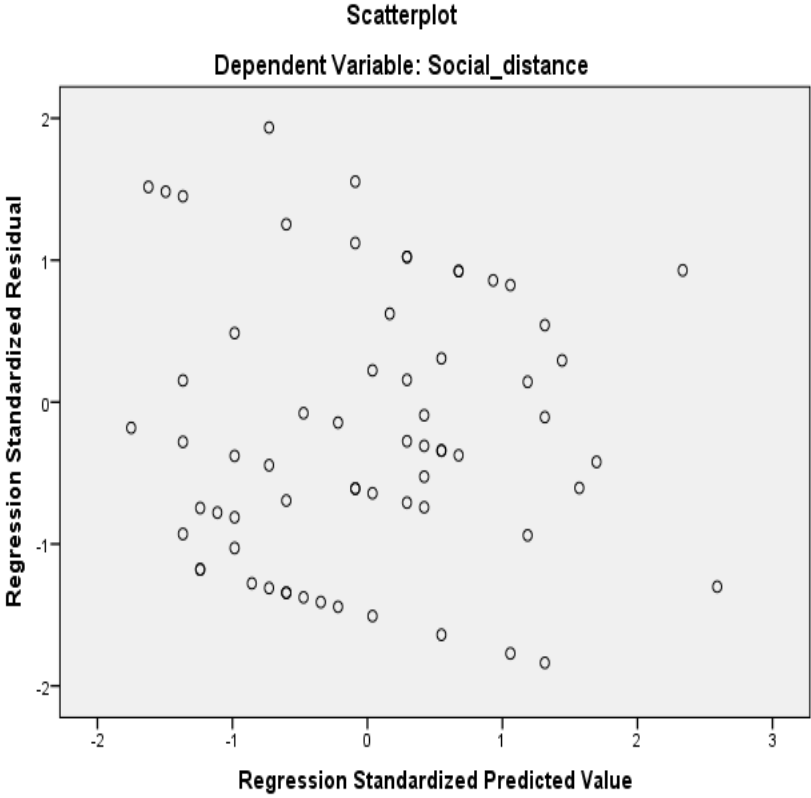




Appendix E

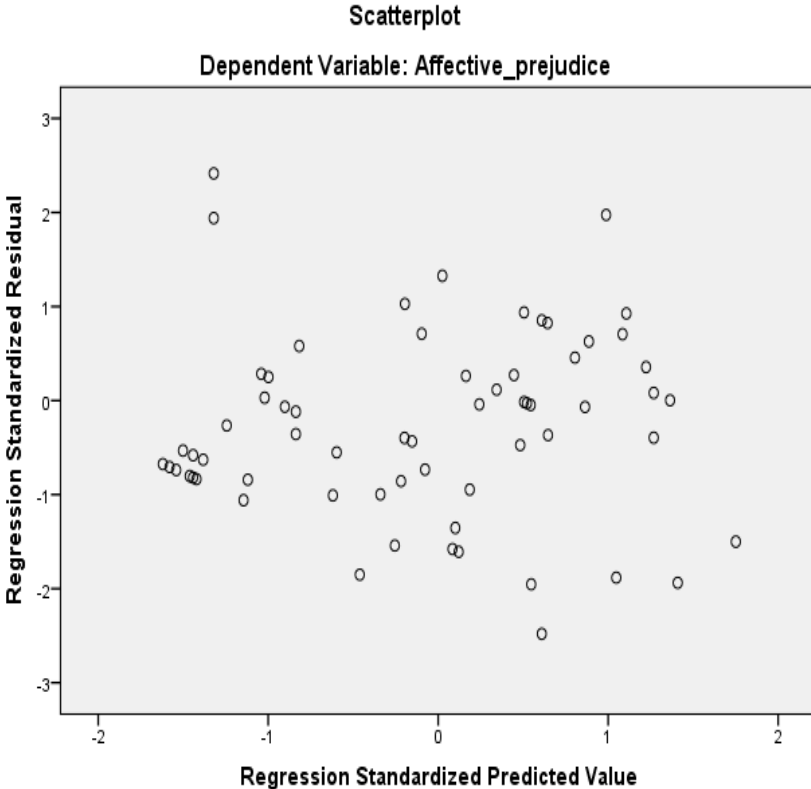
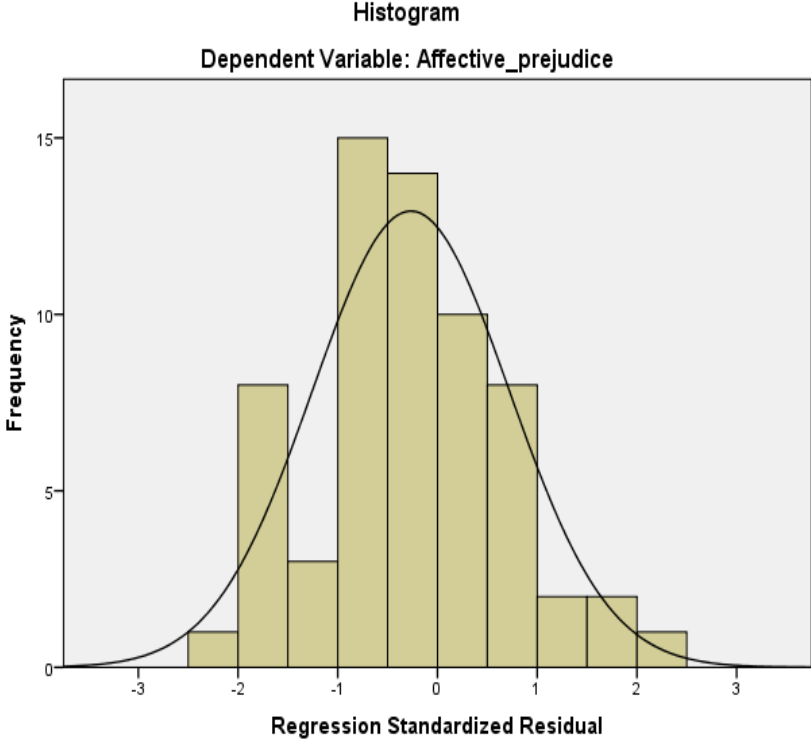
Histograms and Scatterplots of Residuals for Regression of Friendship on Social Distance





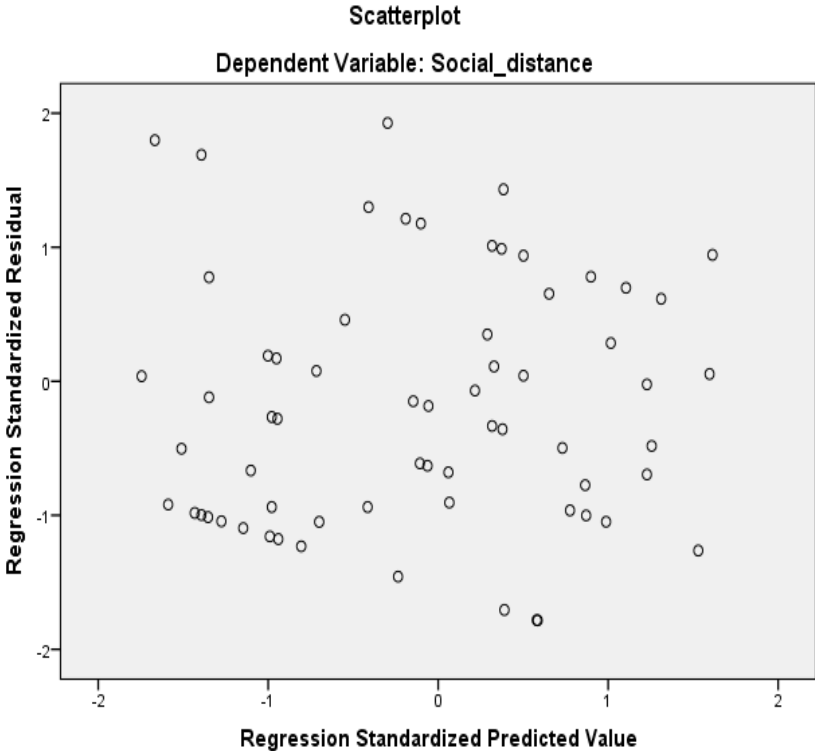
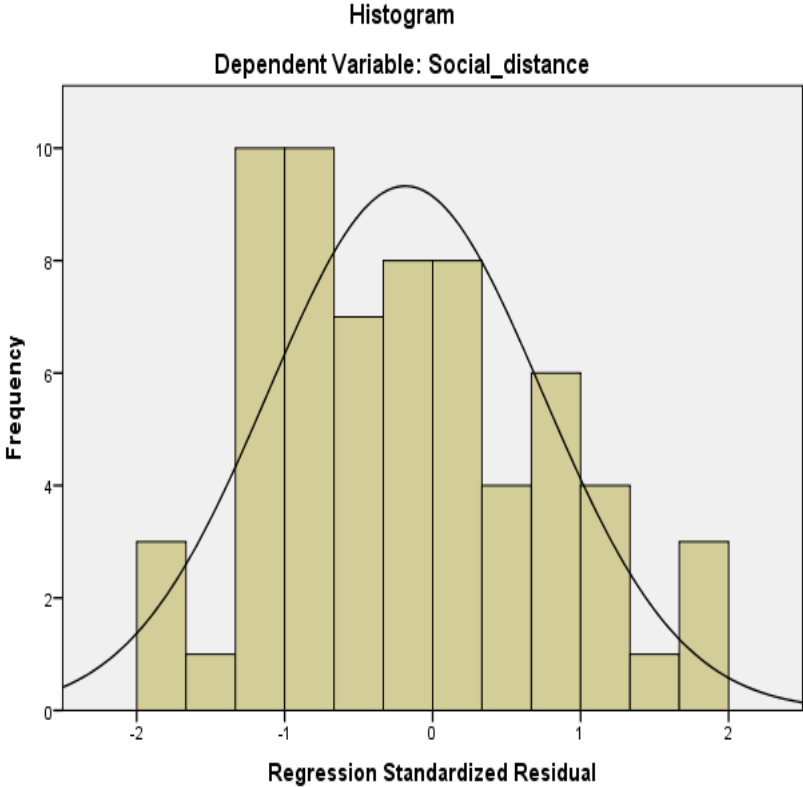
Appendix F

Histograms and Scatterplots of Residuals for Mediation Effect of Anxiety on Friendship-Affective Prejudice Relationship



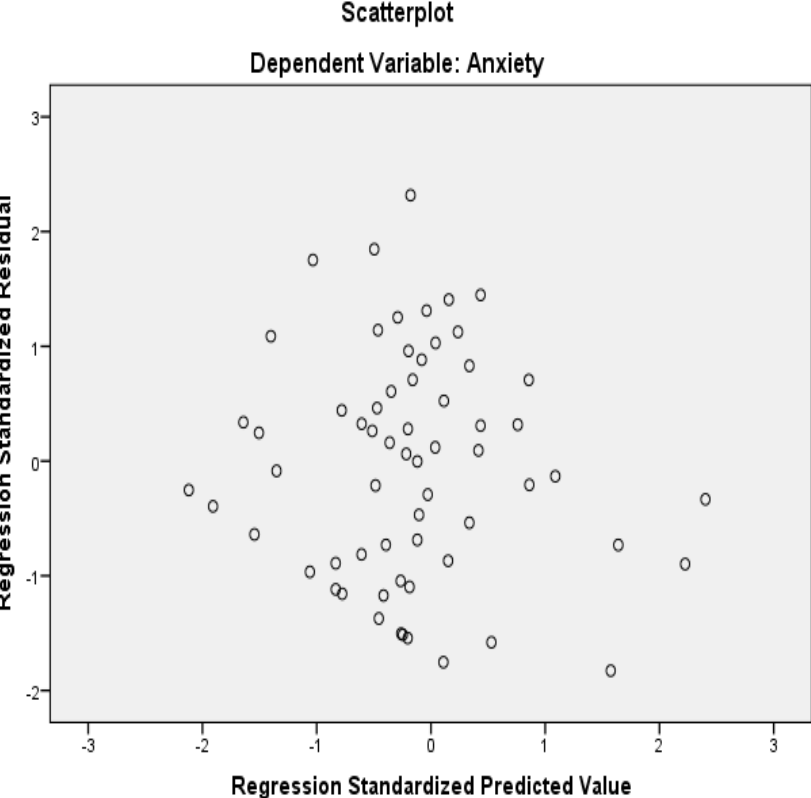
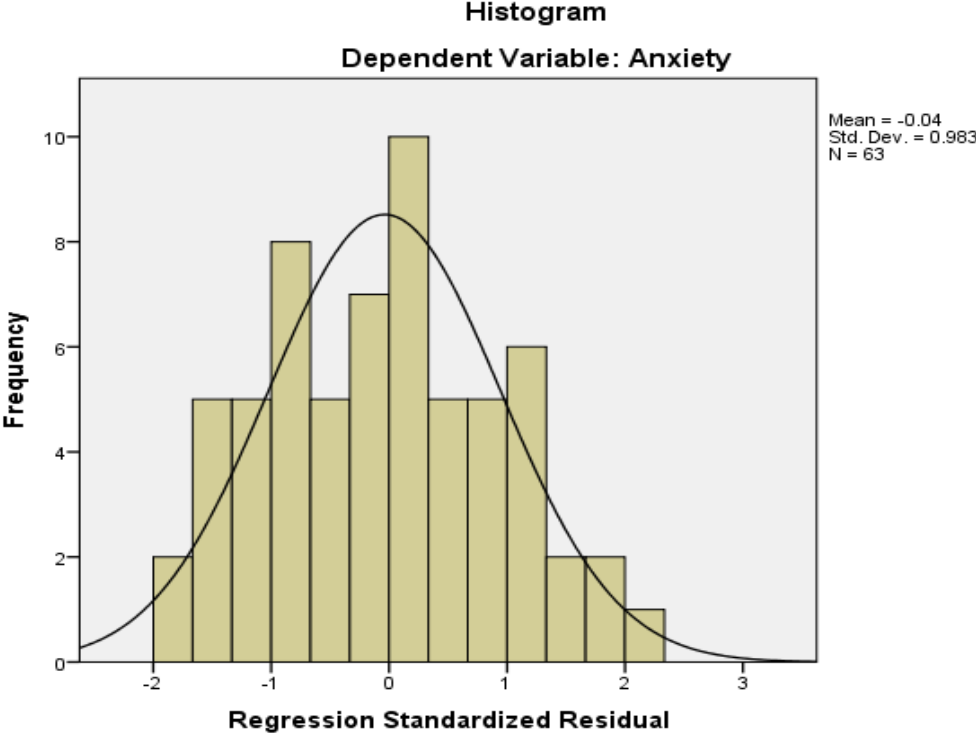
Appendix G

Histograms and Scatterplots of Residuals for Mediation Effect of Anxiety on Friendship-Social Distance Relationship



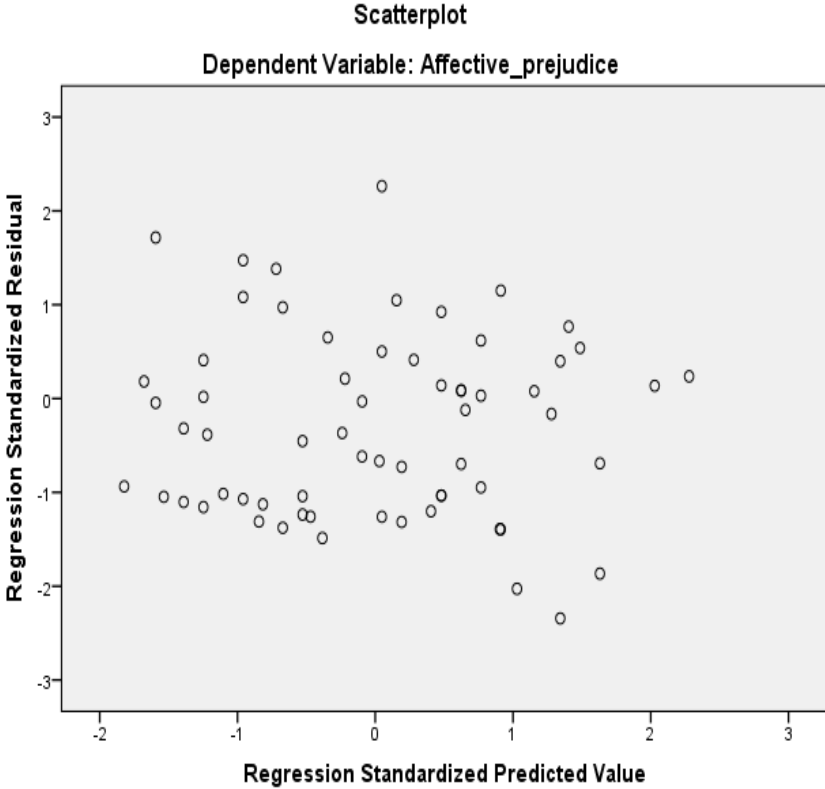
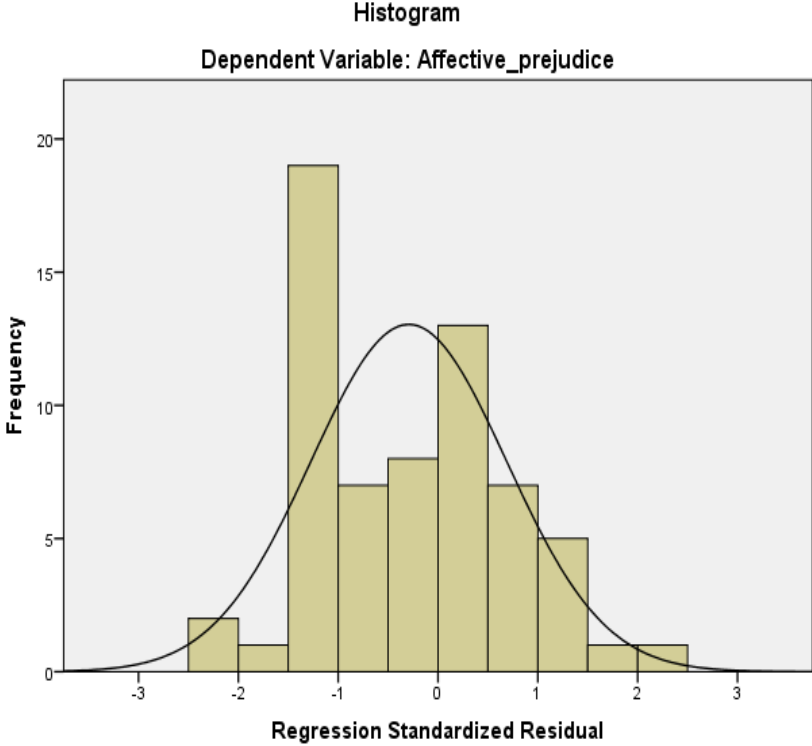
Appendix H

Histograms and Scatterplots of Residuals for Moderation Effect of Group Salience on Friendship-Anxiety Relationship



Appendix I

Histograms and Scatterplots of Residuals for Moderation Effect of Race on Friendship-Affective Prejudice Relationship



Appendix J

Histograms and Scatterplots of Residuals for Moderation Effect of Race on Friendship-Social Distance Relationship

