Improving intergroup relations through para-social contact: An examination of how pro-social television can heal race relations between Black and White Americans

by

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A dissertation submitted in partial fulfillment
of the requirements for the degree of
Doctor of Philosophy
(Communication)
in the University of Michigan
2013

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DEDICATION

To the One who makes all things possible.

"AND THOU SHALT LOVE THE LORD THY GOD WITH ALL THY HEART, AND ALL THY SOUL, AND WITH ALL THY MIND, AND WITH ALL THY STRENGTH: this *is* the first commandment. And the second *is* like, *namely* this, **THOU SHALT LOVE THY NEIGHBOR AS THYSELF.** There is none other commandment greater than these."

--Jesus Christ
Mark 12:30-31

ACKNOWLEDGMENTS

This dissertation would not have been possible without the help of my committee, especially my wonderful advisor and friend Rowell Huesmann. Thank you Rowell for all of your support throughout the years. I am truly grateful for all the time and energy you have invested in me and my research. Thank you for helping me to grow both intellectually and professionally. Thank you for being a role model of what a great scholar, advisor, and colleague looks like. I can only hope to follow in your footsteps.

I would also like to give special thanks to my friend and mentor Elizabeth Vandewater for always guiding me in the right direction. I would not be where I am today without you. Thanks for always thinking of me whenever an opportunity arises and for lifting my spirits with your inspirational and funny emails. Your friendship is very precious to me and I think we make a great research duo. I hope we will be able to work together more closely in the near future.

I praise God for my wonderful family, my husband Nathaniel, and our children, Calvin, Elijah and Faith. Thank you all for putting in the extra work and for hanging in there when the times got tough. Thanks for the endless smiles and the contagious laughter that helped brighten my day and assure me that everything was in fine order. We make a magnificent team.

Thanks to my parents, especially my mom who thinks I'm the smartest person in the world. Mom, you make me feel so very special and I have yet to meet anyone else who gets as excited as you do every time we talk. Thanks for giving me the confidence to succeed and for raising me with patience. I'm so fortunate to be your daughter. I love you always.

I want to thank my siblings—my brothers Majestis, Andra, Judah, and Terrance, and my sisters Faith, Marleta, Gabrielle, Natasha, and Markita. Thank you all for understanding and forgiving me when I was too busy to return phone calls, late to give birthday wishes, and absent when I was needed at home. Thanks for giving me the security of knowing that you all will always be there for me whenever I need you. You all are the true definition of a supportive family.

A special acknowledgement goes out to my best friend Cherie who continued to be my best friend even though we have been physically separated for over 10 years. Thanks for giving me the time and space to grow without getting a new best friend. Thanks for all of your advice, your support, your conversation, and for being the great person that you are. I could live eight lifetimes and never find another friend as special as you.

And last, to my very close friends Alicia, Sydney, Sylvia, Tamika, Eboni, and Tenia. Thanks for allowing me to run in and out of your lives with no apologies. Although we may not speak on a constant basis, I know that I can reappear out of thin air and your love for me will not have changed—the sign of true friendship.

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Chapter I

Introduction and Literature Review

"the whole idea is to look at the television camera and present as much love as you possibly can to a person who might feel that he or she needs it." -- Fred Rogers

http://www.youtube.com/watch?v=yXEuEUQIP3Q [Please click here first; See Appendix C for transcript].

It is obvious that television can be used as a tool to teach. The question is what does it teach? The media clip you just viewed taught you something, and probably a lot—the power of a humble man, the power of television to teach, and the power of policymakers. Here in this media clip, Fred Rogers gracefully explains to Congress the power of television to teach people how to resolve conflicts and to be at peace with one another. Mr. Rogers, "everybody's favorite neighbor", is considered one of the forefathers of "educational television". His show *Mr. Rogers Neighborhood* was designed to bring peace and love—and he did this by using one of our most dominant and pervasive media technologies: the television.

Neither using television to resolve group conflicts nor using television to teach are new ideas; however, using television to increase intergroup contact and promote positive intergroup relations and pro-social behavior would be a new idea. Currently, there are no studies that use

experimental procedures with an adult population to examine how television can be used to improve interracial relations. Using television is a very promising vehicle for change since Americans on average spend 5 hours per day watching television-- more time than all other media combined (Nielsen, 2010). Further, television's status as a cultural icon gives it the power and authority to serve as a key socializing entity in our society.

In a world today filled with conflict and strife, effective techniques and policies are needed to bring about intergroup understanding, peace, and tolerance. Guided by the *contact hypothesis* and *social learning theories*, the main objective of this dissertation is to examine how television can be used to reduce intergroup tensions and conflicts, and to increase pro-social attitudes and behaviors among people. Few things are more obvious today than the open hate and conflicts among all kinds of racial, cultural, economic, religious, and political groups. Thus, the objective of this dissertation has great policy importance since the survival of a democratic nation depends on the invention of techniques designed to resolve its groups' conflicts.

Available research on television makes it clear that both its use and its effects depend on the content of programs viewed. To date, research about the political and antisocial influences of television far outweighs the consideration given to any other area of children's and adult's involvement with television. The possibility that television viewing may foster positive, pro-social attitudes and behaviors has received very little attention. However, if exposure to pro-social media has an influence on its viewers, then pro-social media can be used as a tool to increase positive behaviors and promote the healthy development of both children and adults.

There is also the potential for pro-social media to combat the negative effects of violence and violent media exposure. This sentiment was expressed almost four decades ago when U.S. Surgeon General William Stewart announced to Congress: "The knowledge that should emerge

from this kind of scientific endeavor will be knowledge aimed to understanding. If television can have a negative effect on children [and adults], it can also be a positive stimulus. We must learn more about how to promote this latter capacity while we learn how to avoid the hazards of the former'' (U.S. Senate, Subcommittee on Communication, 1969, p.339).

Cultural Background of the Contact Hypothesis

Speculation about intergroup contact being able to reduce bias and prejudice first surfaced in the literature in the mid-1930s. (Zeligs & Hendrickson, 1933; reviewed in Dovidio et al. 2003). By the mid-1940s improving interracial conflict was of particular interest since promoting national unity was needed in response to the large scale wartime efforts of the nation. Naturally, the segregated schools, housing, and the armed forces served as promising real-world testing grounds for exploring interracial contact. With research and programs on reducing group conflict steadily on the rise, the *Social Science Research Council* called upon Robin Williams, a prominent sociologist, to serve on the *Committee on Techniques for Reducing Group Hostility*. As a committee member, Williams' role was to investigate the tactics and procedures used by agencies concerned with reducing conflict, and to recommend research and theories for evaluating these agencies techniques and shortcomings. Williams' 1947 report in *The Reduction of Intergroup Tensions* included a valuable section devoted to theories, working hypotheses, and research projects concerned with reducing intergroup tensions and conflicts (Williams, 1947). It is with this report, situated within a theoretical and empirical context, that Gordon Allport developed his highly influential Contact Hypothesis.

The Contact Hypothesis

Allport's (1954) Contact Hypothesis states that intergroup contact can reduce prejudice and promote intergroup harmony, and he prescribed four necessary conditions needed in order

for a positive contact experience. He listed equal status among the individuals, intergroup cooperation, a sharing of common goals, and the support of authorities, laws, or customs as key characteristics needed for contact to reduce prejudice and have positive effects.

Over the years, the hypothesis has inspired a great deal of attention from social scientists interested in reducing prejudice and from educators and policymakers involved with building programs to improve group relations in schools, communities, and the workplace. In addition to examining contact effects on racial and ethnic groups, the hypothesis is widely applicable and has been tested with a wide variety of groups including homosexuals (Herek & Capitanio, 1996), the elderly and homeless (Aberson & McVean, 2008; Allan & Johnson, 2009), and the physically and mentally disabled (Maars & Brown, 1996). Further, these investigations use a wide range of research methods, from field and archival studies to national surveys and laboratory experiments. In fact, hundreds of research articles and book chapters have been written on intergroup contact just during the last few decades, and most empirical investigations find support for the contact hypothesis (Pettigrew, 2008, Pettigrew & Tropp, 2000, 2004; Tropp & Pettigrew, 2005).

Early Empirical Research

Early on, field research on public housing provided some of the most robust results and support for the contact hypothesis. In a notable example, Deutsch and Collins (1951) took advantage of a government housing project designed to help address and examine interracial prejudice. The researchers studied the social and psychological attitudes and behaviors of tenants who were assigned to live in either a low-income integrated interracial community or a low-income segregated bi-racial community.

Two housing projects in Newark assigned black and white residents to live in separate buildings, and two other housing projects in New York City assigned residents to live in buildings that were composed of both black and white tenants. The researchers hypothesized that the amount of contact between the tenants would increase as the distance between their homes decreased and that the white tenants in the integrated projects would be friendlier and have less prejudice toward black people than their counterparts in the segregated housing projects.

The researchers interviewed approximately 500 women on their attitudes and behaviors regarding their neighbors. They found that compared to the segregated bi-racial community, white tenants living in the interracial housing projects had more instances of friendly interracial contact, reported more favorable attitudes toward their black neighbors and black people in general, and reported a more close knit sense of community, a more friendly social atmosphere, and a more positive attitude towards living in the projects in general (Deutsch & Collins, 1951). From these results, it can be concluded that segregation can fuel prejudice and does not provide the opportunity for positive interactions and attitudinal changes to occur. This study also points to the important role that contact, both physical and social, play in reducing intergroup tensions, and in bringing about a united culture not separated by racial divisions.

Although not directly tested, the living conditions seem to encompass most of Allport's conditions for optimal intergroup contact being that individuals living in the same housing community are likely to have a similar economic status and must work together, to some degree, in order to maintain a peaceful and enjoyable home environment. Further, being a field study with the support of authorities, social norms and values with regards to race relations are challenged. These changes in cultural beliefs and in the promotion of cross-cultural relationships

are the first steps in breaking down the walls of prejudice and to increasing positive intergroup relations.

A study investigating the race relations and peer interactions of students in an integrated middle school (48% black, 52% white) is probably one of the best examples of the effects of interracial contact using Allport's criteria for positive change. Schofield and Sagar (1977) observed the cafeteria seating patterns of black and white 7th and 8th grade students in a magnet school that clearly endorsed positive intergroup relations. The racial makeup of the 7th grade was roughly equivalent, whereas in the 8th grade there was an "accelerated academic track" where 80% of the students were white students, and a "regular" class that was mainly black students. Students in the accelerated track attended almost all their classes together, and only had contact with "non-accelerated" students during lunch and gym.

Seating observations were taken one day a week beginning in mid-February until the end of the school year in late June. The cafeteria contained 32 rectangular tables with 16 seats, 8 on each side. The researchers mapped the face-to-face (across from one another) as well as the side-by- side seating arrangements of the students. The researchers found an increase in interracial interactions for both face-to-face and side-by-side seating patterns for the "nontracked" 7th grade students only. On the other hand, for the "academically tracked" and racially imbalanced 8th grade students, there were no positive relations. In fact, there was actually a statistically significant decrease in racial mixing over time for the face-to-face seating arrangements for this group (Schofield & Sagar, 1977). These results show support for the contact theory, despite the fact that the white and black students came from markedly different socioeconomic backgrounds and had clear differences in academic achievement.

In a classic study designed to understand how intergroup relations and conflicts are developed and destroyed, Sherif and his colleagues (1966) carried out 3 carefully constructed natural experiments using 11-12 year old boys participating in a 3 week summer camp program. Unbeknownst to the boys, all the researchers acted like personnel working at the summer camp (e.g. camp director, handyman). In each study, the researchers took the boys through different stages of interpersonal and intergroup contact in order to test several hypotheses related to the different stages of contact and conflict.

In the 1949 Connecticut study, at the *stage of spontaneous interpersonal friendship choices*, the boys were allowed to make short acquaintances with other young boys who they had never met before for about a week. After the boys were consistent in associating with a chosen few, the boys were divided up into 2 separate cabins where 2/3 of their recent friends were in the other cabin. At the *stage of intergroup conflict*, the researchers set up activities such as a tournament of games with prizes for the winners (the boys at both camps thought these activities were at their requests), and created social distance, hostility, and group solidarity. Here, the boys turned on their original friends with name calling, scuffling, and expressions that they did not want to be around the other boys.

In the 1954 Robber's Cave study, the experiment was carried out through the *stage of intergroup cooperation*. At this stage the researchers reduced the intergroup conflict by creating a series of situations where the two groups of boys worked on interdependent activities and had super-ordinate goals. In one such activity, the researchers staged a scene where they took both groups of boys out to the lake, and pretended that when everyone was hungry, the truck that was supposed to go get their lunch would not start. Voluntarily, all the boys pitched in, got a rope, and they all pulled the truck together to get it to start.

In all of these early studies the researchers examined the conditions in which intergroup contact and relations were formed, maintained, and broken. Between all 3 studies, the researchers tested and found support for the 4 basic conditions that Allport suggested were key to positive intergroup contact (i.e. equal status among the individuals, intergroup cooperation, a sharing of common goals, and the support of authorities, law or customs).

Laboratory and Longitudinal Findings

Whereas field experiments and field studies on intergroup relations are valuable especially for their high external validity, and laboratory experiments are valuable for their strong tests of causal theories, both of their implications can be enhanced by integrating them with longitudinal studies. For example, using a natural experiment in combination with a longitudinal survey, Van Laar et al. (2005) studied the prejudice feelings, thoughts, and behaviors of college students over a four year period. The researchers recruited 2000 White, Asian-American, Latino, and African- American students who had been randomly assigned to live with roommates of their same or different race during their first year at the university. During the student's 2nd, 3rd, and 4th year at the university the students were allowed to choose their roommates and could voluntarily pick to live with another of the same or difference race. The researchers argue that this living arrangement satisfied Allport's 4 conditions needed for optimal contact since roommates have equal status and must work cooperatively and pursue some common goals in order to maintain a functional home environment.

The researchers were primarily interested in students who were randomly assigned to live with an outgroup roommate, and students who voluntarily chose to live with an outgroup member after their first year. The researchers administered surveys to the students at 5 different

time periods: during the summer before their first year (with an administrative mass questionnaire), and during the spring quarter in each subsequent year (1997-2000).

When the researchers examined the student's prejudice levels after the first year of random living assignment, they found a number of interesting results. Most importantly, they found improved intergroup attitudes for individuals who were randomly assigned to live with an outgroup member. In particular, exposure to African-American roommates seemed to have more and greater positive effects than exposure to the other groups. And, exposure to African-Americans increased the positive affect, cognitions, and behaviors of outgroup roommates of African-Americans; whereas exposure to Whites, Asian-Americans, and Hispanics roommates only tended to increase the positive affect of the roommate. The researchers also found that for a number of their dependent measures, exposure to Asian-American roommates tended to increase prejudice, especially if the roommate was White (Van Laar et al., 2005).

The results of the longitudinal analysis showed very similar results to the experimental findings. Greater exposure to White, Latino, and African-American roommates during the student's second and third years was associated with more positive affect toward these groups measured in their fourth year. Again, exposure to Asian-American roommates tended to consistently increase various forms of prejudice, especially from White students, and towards Latinos and African-American students. In attempts to understand why exposure to Asian-Americans increased prejudice, the researchers performed some additional analyses using all 5 waves of data and found that Asian-American students had significantly higher levels of prejudice than the other groups. As such, the authors suggest that a peer socialization effect may be occurring, and that the roommates of the Asian-Americans students may be adopting the values and beliefs of their more prejudiced Asian-American peers (Van Laar et al., 2005).

Overall, the claims that can be made from the longitudinal results are substantial—individuals who engage in intergroup contact are more likely to have positive attitudes and behaviors towards outgroup members in their near future and later in life. The long-term effects of positive contact are especially important if the effects are to generalize to other settings.

In sum, both the experimental and longitudinal studies found support for the contact hypothesis, especially with regards to affective measures of prejudice. These results are consistent with previous research, in that an individual's affect is more likely to be changed rather than their cognitions in a contact situation (Pettigrew & Tropp, 2008). However, in order for the positive effects of contact to be stable and to generalize to other situations outside of the immediate contact experience, people need to change the preexisting ideas and beliefs that they hold about a certain group of people.

Does Contact Affect Implicit Prejudice?

To address a similar matter, Henry and Hardin (2006) explored the different components of prejudice to see if the results of intergroup contact were dependent on whether implicit or explicit prejudice was being assessed. Although, implicit and explicit prejudice are often thought to develop from two distinct cognitive dimensions (Dovidio, Kawakami, & Gaertner, 2002), most contact research focuses on explicit prejudice using self-reports. However, assessing implicit prejudice may be a better measure since it is harder to consciously control.

Using an experimental design, the authors examined intergroup contact and explicit and implicit prejudice using both a sample of 160 white and black people in the United States, and a sample of 83 Muslims and Christians in Lebanon (here Muslims have a lower social status). The researchers measured explicit prejudice by using a social distance scale and a racial feeling thermometer. Implicit prejudice was measured with the Implicit Association Task (IAT), a

reaction time task. Using the IAT, attitudes towards the groups were assessed by exposing the participants to names that were identifiably black and white (in experiment 1), or names that were identifiably Muslim or Christian (in experiment 2), and having participants pair the names with words that were positive or negative. Contact was measured by asking participants about their relationships with ingroup and outgroup members.

When examining the relationships between positive outgroup contact and explicit prejudice, the researchers found that for both experiments (i.e. whites and blacks, and Muslims and Christians) greater contact was associated with reduced social distance and less negative feelings towards the outgroup. When examining intergroup contact and implicit prejudice, the researchers found that once again greater contact was associated with less prejudice, but that the significance and magnitude of this effect was dependent on race and religion. Black people in the United States and Muslims in Lebanon showed a strong and statistically significant decrease in implicit outgroup prejudice as a function of intergroup contact, whereas white people and Christians did not significantly decrease their levels of prejudice. In fact, white people with very close contact with black people, and Christians with very close contact with Muslims had the same amount of implicit prejudice than those with the least amount of contact with these groups (Henry & Hardin, 2006).

These results have two main implications. First, the type of prejudice and measures used to assess prejudice has a bearing on the results of studies examining intergroup contact; therefore future researchers should use more sensitive techniques when capturing prejudiced attitudes and beliefs. Second, the effects of intergroup contact may depend on whether the interacting members are from the majority or minority culture. The literature on power and interpersonal relationships makes a distinction between how low status and high status groups deal with and

maintain cultural biases. Since high-status groups already have positive associations that are broadly represented in society, it may be easier for members of low status groups to reduce their implicit prejudices towards them; however, it may be harder for members of high status groups to eliminate the negative stereotypes and biases associated with low status groups. Further, in an intergroup contact situation, low status members tend to have more at stake, and are therefore more likely to be more accommodating and more aware of their behaviors and their speech in the interaction. On the other hand, members of high status groups tend to have less at stake in the contact situation and tend to use more heuristics and stereotypes when interacting with members of a lower-status group (Fiske, 1993).

Meta-Analysis For The Contact Hypothesis

The relation between intergroup contact and prejudice reduction has been thoroughly established. Hundreds of studies, using various methodologies (laboratory experiments, field studies, longitudinal studies, and surveys) have consistently found a positive relationship between intergroup contact and a reduction in prejudiced attitudes and behaviors. To summarize the magnitude and directions of these findings, a number of researchers have performed meta-analyses using research from the area (Pettigrew & Tropp, 2000, 2004; Tropp & Pettigrew, 2005). One of the most widely cited meta-analytic studies on the relationship between intergroup contact and prejudice is Pettigrew and Tropp's (2006) review of 515 empirical studies.

The meta-analysis revealed a significant aggregate correlation between amount of intergroup contact and prejudice toward the outgroup of -.26. As is typical, the experimental studies used in the sample revealed a slightly higher aggregate correlation of -.34 between intergroup contact and prejudice. This effect is considered medium in size and therefore carries great implications with regards to its impact on the greater population (Cohen, 1988). Moreover,

because these are true experiments, causal claims regarding the direction of effects are clear—intergroup contact causes a reduction in prejudice. For the survey and field experiments, as is typical, the meta-analyses showed a slightly lower aggregate correlation of -.20. Although the effect sizes are small to medium in magnitude, the correlation is significant and the claims are substantial—people who have intergroup contact where they live, work, or play are less likely to be prejudiced, and these effects are more likely to be long-term.

Since the contact hypothesis was built with the purpose of helping to solve racial and ethnic prejudice, most of the studies examining the contact hypothesis have looked at the issue of race. When Pettigrew and Tropp (2006) analyzed the difference between studies that examined race (approximately half of the samples), and all others (e.g. homosexuals, disabled), they found that the two groups had almost the same overall effect size (-.22). However, there was a substantial difference in the magnitude of the effect for the experimental studies for the two subsamples. For the racial/ethnic subset, the average correlation was -.22 and for all others, the correlation was -.38. Upon further review, they found that the quality of the prejudice measure was shown to be particularly important when examining racial and ethnic prejudice. Studies with more rigorous prejudice measures produced the largest effects. These results highlight the importance of knowing how to carefully construct and carry out laboratory experiments that are more sensitive and understanding of how race in the contact situation can be manipulated and measured in order to find and produce significant and large positive effects.

Other important findings from the meta analysis reveal support for the claim that positive contact effects do in fact generalize to the entire outgroup, across situations, and toward outgroups not involved in the contact situation ($r = -.21$, $-.24$, and $-.19$ respectively). These results refute many of the claims that the effects from a positive intergroup interaction cannot be

used to change people in a broader social context (Amir, 1976; Forbes, 1997). Further, and surprising, the meta-analysis also showed that Allport's four conditions are not necessary for positive intergroup contact to occur, but that they help in strengthening the impact of the interaction. While not very good news for the theory, these findings are actually very positive results that suggest a *mere exposure effect* (Zajonc, 1968) may be occurring. If so, then simply having positive intergroup contact, (and the more frequent the contact), can increase the liking and positive evaluations of outgroup members.

Recent Theoretical Developments Related To The Contact Hypothesis

Especially because of its policy importance, the contact hypothesis has received renewed interest in the recent years. And now, with ample evidence to support Allport's basic contentions, the contact hypothesis has extended in new directions on its path to become a solid theory. To date, theoretical developments of the contact hypothesis have focused on 3 major areas—1) testing other key conditions that predict when intergroup contact would improve intergroup relations, 2) specifying the mechanisms that explain the relations between intergroup contact and peoples' attitudes, beliefs, and behaviors, and 3) debates on how to make intergroup contact effects generalize beyond the immediate situation.

The Importance of Cross-Group and Indirect Friendships

Over the years, researchers investigating the contact hypothesis have identified more and more conditions that make intergroup contact reduce prejudice. As such, the laundry list of conditions has only served to weaken the theory and make social policies and applications seem unattainable. Pettigrew (1998) argues that these additional conditions are not required to reduce prejudice but that they merely help facilitate positive interactions. However, research has

consistently shown that cross-group friendships are a powerful factor in reducing bias and prejudice.

Cross-group friendships allow for close intimate interactions, cross-group empathy, and other positive mechanisms that help develop positive cognitions and affective ties (Pettigrew, 1998). Further, cross-group friendships may involve a reappraisal of the ingroup, such that ingroup norms and biases are no longer viewed as the only way or the best ways to evaluate situations and people. This new outlook can further serve to put distance between the member and his or her ingroup and to shorten the distance and increase the time spent with outgroup members. In turn, the more outgroup friends you have, the less likely you are to have prejudiced cognitions and attitudes. In fact, even knowledge of an ingroup friend that has a close relationship with a outgroup member has been shown to reduce prejudice (Pettigrew et al., 2007). This is the idea of an extended or indirect contact effect, and while support for it has been found using both experimental (Wright et al., 1997) and survey (Pettigrew et al., 2007) studies, its effects are not as strong as for direct cross-group friendships.

In a valuable and commonly cited study looking at the relations between intergroup contact, outgroup friends, and reduced bias and prejudice, Pettigrew (1997) examined seven national probability samples in France, Great Britain, the Netherlands, and West Germany. He found that people who had more friends of another race, religion, nationality, culture and social class were less prejudiced towards the minority groups in their country, and were more likely to support immigrants. He found that the strongest links were between outgroup friends and affective dimensions of prejudice. Individuals with outgroup friends were more likely to say that they felt sympathy or admiration for minorities than those without outgroup friends. Further, and consistent with the contact hypothesis, he found that the causal pathway from friendships to

reduced prejudice was greater that the reverse path from less prejudice to more friendships. Although strong causal claims cannot be made due to the survey nature of the data, these results suggest that having more outgroup friends leads to more positive attitudes towards outgroup members. With these strong findings, Pettigrew recommends adding crossgroup friendships as a 5th key condition required for positive intergroup contact.

To add stronger support for the important role that outgroup friendships play in promoting positive intergroup relations, Levin, Laar and Sidanius (2003), conducted a longitudinal study looking at the relationships between ingroup and outgroup friendships and the racial attitudes of college students (see above Van Laar et al. 2005 for study design and procedures). They found that students who had more outgroup friends during their second and third years at the university developed more positive feelings towards outgroups and felt less anxious interacting with outgroup members by the end of their 4th year in college. Because this study is longitudinal, stronger claims can be made regarding the direction of effects. Whereas Pettigrew (1997) found a stronger path from friendships to reduced prejudice as opposed to the reverse direction, Levin et al. (2005) found that the two causal paths were approximately equal in magnitude when assessing for both ingroup bias and intergroup anxiety. However, these differences in effect sizes may be related to the different outcomes assessed (prejudice vs. intergroup anxiety). Nonetheless both studies ruled out a number of selection effects by controlling for a number of key variables known to be related to both outgroup friendships and ethnic attitudes (e.g. political conservatism, national pride, socioeconomic status). In sum, the findings from these two studies support the notion that intergroup friendships are a strong and consistent predictor of lower prejudice and less intergroup anxiety. In turn, reducing prejudice and intergroup anxiety increases the likelihood of positive intergroup contact.

Although indirect contact effects are not as strong as direct crossgroup friendships, extended contacts should not be discounted and are particularly important because they do not encounter some of the problems associated with direct contact, mainly intergroup anxiety. Intergroup anxiety has been shown to be a key mechanism when assessing the relation between intergroup contact and positive outcomes. Intergroup anxiety stems from not knowing how to respond to an anticipated intergroup situation, and it is generally associated with negative attitudes towards the situation and the outgroup members. However, observing ingroup members in friendships and in positive interactions with an outgroup member may give the observer scripts to use when faced with a similar intergroup contact situation.

The Mediating Role of Outgroup Empathy and Intergroup Anxiety

Understanding the processes through which intergroup contact occurs has helped to take the contact hypothesis to the more testable and valuable *Intergroup Contact Theory*. The original contact hypothesis only predicted when intergroup contact would lead to positive changes in attitudes and behaviors. It did not explain how and why these changes occurred. Recently, a major addition to the literature and a key focus of contact scholars has been to specify the mechanisms that explain the relation between intergroup contact and peoples' attitudes and behaviors. Recent research has shown affective factors to be especially important mechanisms, even more predictive than cognitive factors (Pettigrew & Tropp, 2008). The current research in the field has highlighted two key affective mediators that have consistently shown to be particularly effective: empathy and intergroup anxiety.

Intergroup contact can reduce prejudice and bias by producing empathy towards the outgroup. Empathy is typically defined as a vicarious emotional and cognitive state brought about by identifying with and understanding another's situation, feelings, and motives (Batson,

Early, et al., 1997). Empathy can trigger emotional experiences, such as sympathy, admiration, or compassion, which can evoke an altruistic motivation to be more supportive towards others, as well as increase the perception that there is a common humanity and shared destiny with the outgroup (Batson et al., 1997; Batson, Polycarpou, et al., 1997). Perspective-taking, the more cognitive dimension of empathy promotes cognitive self-other overlap (sometimes called self-other merger) and is generally assessed by imagining how another feels or imagining how you would feel if you were in another's position (Batson et al., 1997; Batson, Polycarpou, et al., 1997). Both the emotional and cognitive components of empathy have been shown to reduce intergroup anxiety and promote more favorable intergroup attitudes (McFarland, 1999; Vescio, 2003). Since connecting positive emotions to the intergroup situation can increase positive attitudes and behaviors, then logically reducing negative emotions such as intergroup anxiety can decrease intergroup bias and prejudice.

Intergroup anxiety refers to feelings of uncertainty, embarrassment, rejection, misunderstanding, or discrimination when anticipating a contact situation with an outgroup member (Stephan & Stephan, 1985). Intergroup anxiety may be caused by an array of factors such as minimal previous contact with outgroup members, a history of intergroup conflict, negative stereotypes of the outgroup, and status differentials. Regardless of its cause, the expectation of negative consequences from the interaction may cause the individual to avoid the contact situation altogether, leading to an increase in group polarization. In addition, a heightened physiological arousal, often caused by anxiety, is associated with a more narrow cognitive performance and an increase in the use of heuristics such as stereotypes (Richeson et al., 2003). As such, it is critical to reduce intergroup anxiety in order for a positive intergroup contact experience to take place.

Pettigrew and Tropp (2008) performed a meta-analysis of 54 studies to see which mediating factors were most important in explaining how intergroup contact reduces prejudice. They also found that the affective factors of intergroup anxiety and empathy/perspective-taking were more powerful than cognitive processes (i.e. enhancing knowledge about the outgroup) in explaining the contact-prejudice association. Using structural equation modeling (SEM) techniques in combination with the Sobel test, the meta-analysis revealed a z of -26.55 ($p<.0001$) for the mediating effect of intergroup anxiety, a z of -12.43 ($p<.0001$) for the mediating effects of empathy, and a z of -3.87 ($p<.001$) for the mediating effect of knowledge. The z-score allows for the comparison of scores in the different studies and represents how many standard deviation units the raw score is above or below the mean score. These results support the idea that contact reduces anxiety and this reduction in anxiety is associated with a reduction in prejudice. In addition, their results showed that contact increases empathy, and that empathy reduces prejudice. It is important to also note that these two key mediators (anxiety and empathy) only explained about half of the variance of intergroup contact on prejudice. As such, more mediators are at play, and recent literature has identified several new mechanisms such as *threat* that need to be systematically examined to help explain how intergroup contact reduces prejudice (Pettigrew, 2008).

In an empirical study, Aberson and Haag (2007) tested the mediational effects of perspective taking and anxiety on contact, and explicit and implicit racial attitudes. With a sample of 159 white undergraduate students, the researchers administered the Implicit Attitudes Test (IAT) and self-report measures of contact, perspective taking, anxiety, stereotype endorsement, and explicit attitudes towards black people. Their results showed a number of interesting findings. With regards to anxiety, they found that participants who had contact with

black people had less anxiety about black people and were more likely to have more positive stereotypes and more positive explicit attitudes towards black people. With regards to perspective taking or empathy, the researchers' tests revealed that contact with black people improved white participants' ability to take the perspective of black people. Further, this increase in perspective taking was related to less intergroup anxiety towards black people. They also found that anxiety mediated the relationship between perspective taking and explicit attitudes and stereotype endorsements.

Although the study revealed that contact with black people was also related to less implicit bias, there were no mediational effects found for anxiety or perspective taking on implicit attitudes. These varying effects could be because implicit and explicit prejudice are often thought to develop from two distinct cognitive dimensions; and therefore contact, dimensions of contact, or different mediating processes may impact implicit and explicit prejudice in different ways.

The Problem of Generalization

There has been extensive elaboration of the contact hypothesis addressing the issue of generalization, particularly the ability to generalize the positive intergroup contact from the outgroup individual to the outgroup as a whole. The process of generalizing from interpersonal to intergroup is a central issue for theory, research, and policy. Cook (1978) brings attention to this issue and observed that much of the earlier work on contact did not generalize. Several scholars have offered models to address the issue of generalization, and most models focus on *category salience* as a key moderator in assessing how the contact that occurs at the interpersonal level can be transferred over to the entire outgroup that the member belongs to. Category

salience refers to the degree that the intergroup interaction members represent a strong identification with their group.

Intergroup Contact Theory

Hewstone and Brown (1986, 2000) theorize that contact effects generalize best to the outgroup when group membership is salient and occurs within an interdependent cooperative framework. When group saliency is high, the interaction is not seen on a interpersonal level but rather as an interaction that could take place between any individual from their respective groups. These effects are most promising when both the outgroup and ingroup members are typical or representative of the group that they belong to. However, a typical representative poses two problems. First the likelihood of two typical members meeting in any meaningful or prolonged interaction is low since these individuals are typically segmented by distinctive spheres, characteristics, and interests. Second, and unfortunately, when interaction members are seen as typical of their group, negative stereotypes, beliefs, and attitudes associated with that group also become cognitively accessible and can impede the formation of a positive intergroup interaction.

Decategorization Model

Brewer and Miller (1984) theorize that if contact members come to see themselves as individuals engaging in intimate interactions and not as members of groups, then generalization would be more likely to occur. They argue that positive intergroup contact is most effective when the contact focuses on the *personalization* or the exchange of idiosyncratic information about one's self, with low group saliency. The personalization process should reduce the salience of category distinctions and lessen the use of cognitive scripts and attitudes that would normally come to mind when primed with the original outgroup categories. The authors theorize that as

more and more personal information is acquired, an increase in personalized representations and a decrease in group saliency will, with time, change the negative scripts and attitudes associated with the outgroup. However, one issue of concern with complete decategorization is the requirement that an individual relinquish their existing group identities. This may be an unreasonable or impossible request for both majority and minority group members.

Common Group Identity Model

Gaertner and Dovidio (2000) suggest that reconceptualizing or recategorizing the boundaries is a more effective strategy to increase generalization, rather than dissolving identities as suggested by Brewer and Miller (1984). They theorize that after extended intergroup contact has occurred, individual members can come to think of themselves as part of the larger intergroup and lose their distinct category boundaries. Here, members are seen as part of one large inclusive group or super-ordinate entity joined together by a common group identity. This common group identity highlights similarities among the members and transforms the interaction from "us" versus "them" to a more united "we". As such, the stereotypes and prejudices previously associated with the original category groups should be reduced or eliminated. However, in order for people to think of themselves as one large group, extended contact must occur first, and unfortunately most groups never reach a high enough level of interpersonal contact in order to reconceptualize themselves and see themselves and others as belonging to a common super-ordinate group. Further, the model does not necessarily require members to totally abandon their individual group identity. The authors put forth the idea that individuals can maintain a dual identity in that both a subgroup and super-ordinate identity can be salient simultaneously.

Empirical Evidence Addressing Generalization of Effects

The first experiments to provide some strong evidence on the strengths of the different categorization conditions were conducted by Gonzalez and Brown (2003) using 114 undergraduate students. The purpose of their study was to see which of the above mentioned models produced results that generalized beyond the immediate contact situation. In a three phase experiment the researchers used the degree of group salience (i.e. one group condition, two groups condition, separate-individuals, and a dual-identity condition) as a moderator in examining the relationship between intergroup contact and prejudice. In the first phase of the experiment, the researchers created ingroup identification and intergroup bias. In order to do so, they arbitrarily separated four participants into two separate groups (the "Analytics" and the "Synthetics") with distinctive labels and names. The groups then independently completed a short cooperative problem solving task. In the second phase of the experiment, the researchers had the participants do a second problem solving task but this time under the different categorization conditions. In the final phase of the experiment the researchers tested the different types of contact situations' ability to generalize its effects towards other ingroup and outgroup members with which the participant had no direct contact.

In the typical "two-groups" condition, one group wore red shirts (the Analytics) and the other group wore blue shirts (the Synthetics). Each group took a photograph holding a poster with their group name on it. The poster was later hung on the wall behind each group. During the tasks, the groups had segregated seating so that the 2 members of each group sat on the same side of the table while they performed complementary and cooperative tasks within group boundaries. In the "separate-individuals" condition, each participant wore name badges and different colored t-shirts. Each participant took a photograph while working independently.

During the task, each individual sat at a different table and worked on the task independently. They were also told to talk to one another and exchange personal conversation and solutions. Here, there were no signs or visual cues of the former group memberships (decategorization). In the "one-group" condition, all four participants wore the same blue t-shirt and a common university badge. One photograph was taken of the four group members holding one banner with their group name written on it. The banner was then hung in the middle of the wall in the room. During the task, the members took on complementary and cooperative roles and sat around the table in an integrated fashion (i.e., where each person sat beside a previous--in phase 1 experiment--outgroup member). And last, in the "dual identity" condition, all four participants wore the common university badge but 2 members wore red shirts and 2 members wore blue shirts. Three photographs were taken: 1 photo of the red shirts holding their group banner, 1 photo of the blue shirts holding their group banner, and 1 photo of all four participants holding a common university banner while each group member also held their own group banner. During the task, there was segregated seating in that the members of each group sat on the same side of the table while they performed complementary and cooperative tasks within group boundaries.

Following the contact situation, the participants filled out questionnaires on evaluative ratings of and symbolic reward allocations to ingroup and outgroup members with whom they had just interacted. The questionnaire results showed that intergroup bias was reduced in all four conditions. More importantly, they measured the ability of these positive attitudes and interactions to generalize to other outgroup members with whom the participants had no direct contact. To do so, they had the participants watch 2 short video clips of two unknown groups (named the Analytics and the Synthetics) working separately. After watching the video clips, the participants once again filled out the same evaluative and reward allocation questionnaire, but

this time assessing the groups in the short video clips. The results of this questionnaire showed that the positive intergroup attitudes observed in the direct contact situation did not transfer to the groups in the video for all 4 conditions. Rather only the "one-group" and the "dual-identity" conditions showed less intergroup bias towards the mediated groups. When comparing the dual-identity and one-group condition, the researchers found no significant differences in bias between these two groups. Both groups reduced bias close to zero.

In a similar experimental study Guerra et al. (2010) assessed the generalization of effects using 9-10 yr. old European-Portuguese and African-Portuguese children. They also found that the positive effects of a one-group identity and a dual-identity generalized to other outgroup members, whereas categorizing the children into 2 separate groups was not effective in generalizing beyond the immediate contact situation. Further, these results remained stable in a 3 week follow-up assessment. The researchers also found that the preference and effects of the one-group and dual-identity method was dependent on whether the participants were from the minority or the majority group culture. Some studies have found that majority groups prefer a one-group representation (as in this study) and others have found that majority members prefer a dual-identity (Dovidio, Gaertner, & Kafati, 2000). This same pattern has also been found for minority groups (Gaertner et al., 2007). Obviously something else is at play here and more research in this area is needed for understanding the psychological processes and effectiveness of the different group categories with different groups of people.

The two studies reported above both seem to support Gaertner and Dovidio's (2000) Common Group Identity Model, and a degree of category salience as recommended by Hewstone and Brown (1986, 2000). As it stands now, for theoretical or practical significance, the ruling consensus in the field is to make race salient when determining how to create positive

intergroup interactions, and in making sure that those interactions transfer beyond the initial or immediate contact situation. These results also point to the importance of understanding context and culture, especially the historical context between the two groups when creating artificial contact situations or policies to promote positive intergroup contact in applied settings. Furthermore, it seems that in order to better understand individuals and their attitudes and beliefs, it is best to take into account their identity and power within the larger social cultural context. However, in doing so, it almost inevitably draws physical distinctions and ethnic separations.

Television and the Parasocial Contact Hypothesis

Linking Allport's Contact Theory (1954) and Horton and Wohl's (1956) concept of *Parasocial Interaction*, Schiappa, Greg, and Hewes (2005) developed the Parasocial Contact Hypothesis (PCH). Parasocial interaction refers to the idea that viewers form beliefs and attitudes about characters they see in the media, particularly on television. Parasocial interaction has been commonly referred to as the mass-mediated equivalent of interpersonal interaction by many communication scholars. Here it is argued that viewers cognitively process and affectively respond to mediated messages and vicarious experiences with media figures in a similar manner as they would direct face-to-face interpersonal contact with a live person (Kanazawa, 2002; Reeves & Nass, 1998). As such, parasocial interaction can influence viewers' attitudes and opinions about groups in a similar manner as direct intergroup contact. The parasocial contact hypothesis suggests that exposure to positive intergroup contact with minority groups in the media can teach viewers how to interact with minority members in a positive manner. Viewing these mediated pro-social interactions can potentially reduce negative prejudices and stereotypes

associated with outgroups; and this effect may be especially strong for members of the outgroup with which the viewer has very limited direct contact.

It is important to note a distinction between Schiappa, Greg, & Hewes (2005) parasocial contact hypothesis and Allport's (1954) contact hypothesis. The contact hypothesis suggests that the positive effects of contact on prejudice would be stronger for individuals who have friends with members of the outgroup whereas the parasocial contact hypothesis suggests that the positive effects of parasocial contact on prejudice would be stronger for individuals who do not have friends from the outgroup. The current study will test whether or not having friends from the outgroup impacts (or is more strongly related) the relationship between parasocial contact and prejudice.

Empirical Evidence for the Parasocial Contact Hypothesis

To test their parasocial contact hypothesis Schiappa et al. (2005, 2006) conducted four studies assessing parasocial contact with homosexuals and a male transvestite. In their first study, 174 college students enrolled in an undergraduate course called *Television Studies: Six Feet Under,* were exposed to ten episodes of the television series *Six Feet Under* for a period of five weeks. During this time, there were no in-class discussions over the show until after the experiment had ended. *Six Feet Under* is about a dysfunctional family who owns and operates a funeral home in Los Angeles. During the first season, one of the sons in the family is coming to terms with his homosexuality and is "coming out" to friends and family.

Students filled out pre and post questionnaires on their exposure to the movie, sexual prejudice, parasocial interactions with the main characters, their number of gay acquaintances, level of familiarity with the characters, and interpersonal attraction. Although the authors did not use a true experimental design and therefore strong causal claims cannot be made, they did find

that, after exposure to the movie series, prejudice towards gay men was reduced and the participants could form distinct judgments about each gay character. However, they found no association between the amount of parasocial contact experienced by viewers and the levels of prejudice they displayed toward gays for participants who already had homosexual friends.

Overall, these results support the contact hypothesis but also raise questions regarding the generalizability of the effects. Because the viewers personalized the gay characters and saw them as distinctive individuals, they may not have associated the gay characters as being typical or representative of gay people as a group, and thus the positive effects of the vicarious contact situation may not be applied to the larger gay community.

In the second study, a true experiment, Schiappa et al. (2005, 2006) exposed undergraduate students in the treatment group to the reality show, *Queer Eye for the Straight Guy. Queer Eye for the Straight Guy* is a makeover show featuring five gay professionals helping a heterosexual male with his lifestyle, appearance, and living quarters. Participants assigned to the treatment group were shown three episodes of the reality show and then completed post tests measures, including the Attitudes towards Lesbians and Gays (ATLG) scale, personality inventories, and various measures of parasocial interaction. In support of the parasocial contact hypothesis, they found that, compared to participants in the control group, participants exposed to the gay characters on the show reported less prejudiced attitudes toward gay men and less stereotypical beliefs about gays' personality traits. However, the more gay friends a participant had, the less impactful the show was on their attitudes towards gays.

The third experiment was conducted to test the generalizability of the parasocial contact hypothesis to another stigmatized minority group: male transvestites. Here the researchers exposed undergraduate students in the treatment group to the 80 minute stand-up comedy show

Dress to Kill, featuring Emmy award winning male transvestite Eddie Izzard. The students filled out pre and post-test questionnaires similar to those in the first study mentioned above. Similar to the authors second study, they found that, compared to the control group, participants exposed to the comedy show reported a greater pre-to-post decrease in prejudiced attitudes toward male transvestites and a greater degree of changed personality beliefs about transvestites in general.

Finally, Schiappa, Gregg, and Hewes (2006) surveyed 245 undergraduate students on whether their exposure to *Will & Grace* affected their attitudes towards gay men. They measured the participant's frequency of viewing the show, attitudes towards homosexuality, parasocial interactions with main characters, and how much previous contact they had with homosexuals. First, they found that most viewers see the portrayals of gay men on Will & Grace as positive. From their surveys, they found that the more gay acquaintances and friends the participants reported, the less likely they were to hold prejudicial beliefs about gay men. With regards to parasocial contact, they found that the greater the viewing frequency of Will & Grace, and the greater the level of parasocial interaction with the gay characters, the lower the level of sexual prejudice they held towards gay men. Further, participants who reported the least amount of direct gay contact had the strongest negative correlation between parasocial interaction with gay characters and sexual prejudice. For participants who reported having many gay friends, there was no significant relationship between exposure to the show and prejudiced attitudes (Schiappa, Gregg, & Hewes, 2006).

Overall, the authors found support for their parasocial contact hypothesis. Positive intergroup contact with stigmatized groups via television reduced the bias and prejudices that viewers had towards those groups. Of particular interest are the findings regarding cross-group friendships. In all three studies looking at homosexuals, the authors consistently found that

cross-group friendships were a key predictor in reduced prejudice against homosexuals. For those participants who had gay friends, the show did not add any additional positive benefits to their preexisting positive beliefs and attitudes towards gays. Here a ceiling effect may be occurring, and if so, a more precise and sensitive measure of positive beliefs about gays may need to be used in future studies.

Further, and more importantly, for those who did not have cross-group friendships with homosexuals, viewing cross-group friendships between gay and straight people on television was related to less prejudiced beliefs about homosexuals. These findings have important policy implications since they point to the media as a promising vehicle to promote positive social change. Especially for individuals who choose not to or do not have the opportunity to engage in direct intergroup contact, a vicarious intergroup experience can be extremely beneficial in improving their intergroup relations.

Similarly, Ortiz and Harwood (2007) conducted a study to test the parasocial contact hypothesis but from a social cognitive perspective. The authors were interested in examining the processes that explain how exposure to positive intergroup contact on television can influence viewer attitudes. The researchers surveyed straight white participants about their exposure to the television shows *Will & Grace*, a sitcom that involves positive intergroup contact between straight and gay characters, and *Real World: Austin*, a reality TV show which involves positive intergroup contact between black and white characters. They measured participants' identification with the ingroup character, their perceptions of how typical they thought the outgroup character was of the outgroup, their intergroup anxiety towards black or gay people, and their attitudes regarding the outgroup.

They found that exposure to both shows predicted positive attitudes towards outgroup members but no support that exposure to the shows predicted less intergroup anxiety. With regards to identification, they found mixed support for their hypotheses. The more the participants identified with the ingroup character from *Will & Grace* the less intergroup anxiety and social distance they had towards gay people. However, participants who identified more with the ingroup character from the show *Real World: Austin* showed more social distance towards black people and no effect for anxiety. When they looked at identification as a moderator of the relationship between parasocial contact and anxiety and social distance, the results were somewhat backwards. Those who had a "high" identification with the ingroup character on *Will & Grace* showed no significant interaction effects, but those participants who reported a "low" identification with the ingroup character also reported lower levels of anxiety and social distance towards gay people. There were no significant interaction effects for identification for *Real World: Austin*.

Overall, the findings from these studies bring up some interesting questions regarding the role and strength that indirect contact effects and cross-group friendships have on viewers' attitudes and beliefs regarding outgroup members. The contact hypothesis would predict that identifying with an ingroup member who is engaged in pro-social intergroup contact would have positive effects on other ingroup members. These results assessing contact parasocially do not seem to fully support this notion. Overall, these findings suggest that the more outgroup friends one has the less likely exposure to intergroup contact will effect one's attitudes and behaviors towards outgroups. These differences bring up some interesting questions on how a vicarious experience with the media may differ from a direct or indirect contact experience, especially

with regards to the roles that identification and cross-group friendships play in reducing prejudice.

THEORIES OF PROCESS: EXPLANATION OF LEARNING MECHANISMS

The contact hypothesis has developed substantially over the past decades, but it still does not have a solid foundation in which to explain its phenomenon. It is still not situated within a broader, more comprehensive theoretical framework that looks at the interrelated set of ideas that help explain contact effects and make predictions. Several social psychological theories may be especially helpful in examining, explaining, and predicting phenomena associated with the contact and the parasocial contact hypotheses. Social cognitive theories can help explain both the short-term and long-term effects of exposure to pro-social media on individuals' feelings, behavior, and cognitions. There also exists a fair amount of empirical research on pro-social media contact in support of these theories.

SOCIAL COGNITIVE THEORIES

According to social learning theory (Bandura, 1986), behaviors and attitudes are learned in a social context. Social learning theory stresses the importance of observational learning and posits that individuals become socialized by watching models (in real life and in the media) and imitating their behaviors. Observational learning refers to the cognitive process of remembering behaviors and attitudes performed by others, and to the mental encoding of these observed social stimuli into one's schema. Social cognitive theory contends that people's observations and interpretations of what they see and who or what they identify with the most helps determine their behavior (Bandura, 1986). Identification is a key tenet of social learning theory. The more a person identifies with the model and sees the model as a role model or similar to oneself, the more likely the person will learn and adopt the behaviors and attitudes of the model. By

observing televised models engaged in positive intergroup contact viewers can learn how to have positive interactions with outgroup members in their future. More elaborate social learning theories focus on memory and attention processes and describe the basic steps and data structures that explain how humans' cognitive processes operate to regulate behaviors as a result of their interactions with the social world (Huesmann, 1998).

Long Term Processes

Script Theory

Huesmann's social information processing model posits that observational learning has long-term effects on the development of an individual's scripts, attribution biases, and normative beliefs (Huesmann, 1998). Cognitive scripts are guides or sets of rules for expected and appropriate social behaviors that are stored in a person's memory to help them assess and respond to future problem solving tasks and social encounters (Abelson, 1976). Cognitive scripts are initially developed from observational learning and direct experience, and later become stable with reinforcements or conditioning. Reinforcements and consequences play a critical role in observational learning since the observer not only encodes the model's behavior but also encodes other peoples and things reactions to the models behavior as part of their social script. The extent to which a person acts out a script and imitates a model is dependent upon the rewards and punishments that the model receives and upon the extent to which the person identifies with the model (Huesmann et al., 2003). Scripts that depict undesirable consequences are not likely to be encoded as possible scripts for future use. However, if an observed behavior is being reinforced, the script that suggested that response is more likely to be retrieved and used in the future (Huesmann, 1998). Furthermore, individuals will enact scripts that are consistent with their beliefs about social norms. Normative beliefs are cognitions that regulate behaviors by

helping an individual evaluate scripts and filter out scripts of behaviors that are inappropriate for the individual. With regards to media exposure, observing an intergroup contact scene where characters are displaying positive attitudes and behaviors can give the viewer scripts or guides to use when in (or anticipating) an intergroup contact situation. Memorizing scripts can be especially useful if individuals have intergroup anxiety or minimal previous contact with outgroup members.

Neoassociationism

Research in cognitive psychology has shown that scripts not only function as independent guides for behavior but also become accessible and maintained in a person's memory depending on how often and how elaborately they are rehearsed (Huesmann, 1998). Moreover, rehearsal of a script enhances its connections in the memory network by forming stronger bonds or clusters with other scripts that emphasize similar actions (Klatzky, 1980). Scripts with strong connections are easily accessible and are used as a primary means for dealing with new situations. To save energy humans are inclined to spend as little cognitive effort as possible in forming judgments, and do not process all of the information coming in (or do so in the same manner for all information), but rather rely on heuristic constructs or shortcuts when processing most information. Further, the more accessible or frequently primed shortcuts are more likely to be used when making sense of our environments. Short-term processes such as priming help to strengthen scripts and make them more likely to be called upon in the future. In the case of pro-social media, exposure to positive media functions as a cue that primes particular mental notes associated with positive behaviors and attitudes. With repeated exposure, the association between the media stimuli and the mental links become stronger; thus the more positive

intergroup contact experienced (directly or vicariously), the greater the number of cues that will elicit pro-social thoughts and attitudes.

Short-term Processes

Priming

Berkowitz and Rogers (1986) discuss priming as when the presentation of a stimulus activates a semantically related concept (memory node), and thus for a period of time heightens the likelihood that the concept, and thoughts with similar conceptual meanings will come to mind again. Priming is a concept based on accessibility models of information processing and assumes that people form attitudes or associations that are most salient (i.e. most accessible) when they make decisions (Hastie & Park, 1986). Thus, the more accessible or primed pathways are more likely to be used when making sense of our environments.

Excitation Transfer Theory

Excitation Transfer Theory (Zillmann, 1971) posits that physiological arousal experienced as a result of an arousing stimulus will increase the likelihood or intensity of subsequent behavior due to its carry-over effects. Although emotions decline over time, viewers who are still feeling the effects of an earlier excitation (being conscious of it or not) are more likely to engage in subsequent behaviors (pro-social or not) in a more intense manner. With regards to pro-social media, exposure to positive emotions, attitudes, or behaviors such as smiling, hugging, or helping may produce a positive physiological arousal in viewers. This physiological arousal is then transferred over into other contexts (e.g. intergroup contexts) where the viewer is located, and begins to exert a positive emotional influence on the situation at hand.

Empirical Evidence in Support of Social Cognitive Theories

From a social cognitive perspective, most research assessing the relationship between exposure to pro-social media and positive outcomes has focused on children and exposure to children's television programming. Further, most of these studies have specifically looked at altruism rather than prejudice reduction (Friedrich & Stein, 1973; Mares, 1996).

In 2003, Smith et al. conducted a content analyses where they examined a randomly selected week of TV programming for altruism. They assessed more than 2000 programs across different genres and 18 different channels from 6am-11pm. They found that 73% of the programs displayed altruism. On average, viewers of these programs saw about 3 acts of altruism per hour. Altruism was found to be more common in situation comedies and children's shows than in other types of programming. In children's programming specifically, altruism occurs at a rate of four times an hour while violence occurs at a rate of fourteen times an hour. As such, American children who watch an average of 3 hours of children's programming per day will see around 4,320 acts of altruism and 15,330 acts of violence each year (National Television Study, 1997; Smith, Smith, Pieper, Yoo et al., 2006).

The first meta-analysis to assess the effects of pro-social media found that the correlation between watching pro-social television and pro-social behavior was twice as big as the effect size associated with watching violent television on aggressive behavior (Hearold, 1986). Although it is a significant contribution to the literature, this meta-analysis was criticized for its broad definition of pro-social behavior (e.g. borrowing books from a library; Mares & Woodward, 2001). Later, Mares & Woodward (2005) conducted a meta-analysis of 34 studies examining the influence of pro-social television exposure on children's positive behaviors. They examined the effects of pro-social media on three different outcomes of positive behavior—

altruism, social interactions, and reducing stereotypes. They found an effect size (r) of .37, .24, and .20 respectively across the three different behaviors. Across all three positive behaviors, the average effect size for the influence of pro-social media on positive behaviors was .27, only slightly less than the effect sizes for violent media (Paik & Comstock, 1994).

Some recent notable experimental and field studies have reported results of similar effect sizes. Gentile et al. (2009) showed with a laboratory experiment that short-term exposures to playing pro-social video games cause increases in pro-social behavior and decreases in aggressive behavior afterwards. Cole et al. (2003) conducted a naturalistic study of Israeli and Palestinian children's exposure to a children's pro-social show called "Rechov, Sumsum/Shara's Simsim."

Rechov Sumsum/Shara'a Simsim, produced in conjunction with an Israeli, Palestinian, and American (Children's Television Network) production company, is a television series design to teach tolerance to children living in Israel, the West Bank, and Gaza. In the show, the characters demonstrate pro-social actions towards one another, show mutual respect and understanding, and learn about their own and other groups culture. The title Rechov Sumsum/Shara'a Simsim means Sesame Street in Hebrew and Arabic. The show is in mixed magazine format including, live-action, animation, documentaries, and puppet segments. The show airs in an Israeli and Palestinian version, and both versions of the show are bilingual, with the Israeli broadcast containing more Hebrew, and the Palestinian more Arabic. Both versions also include "cross-over" segments which are episodes when characters who live on the Israeli street (Rechov Sumsum) visit their friends on the Palestinian street (Shara'a Simsim) and vice versa. These cross-over segments are the main source of intergroup contact between the different groups.

Using the Rechov Sumsum/Shara'a Simsim television series, Cole et al. (2003), conducted a naturalistic study to assess young children's stereotypes and social knowledge of one another. They recruited preschool children from the local elementary schools in the communities. There were 99 Palestinian, 113 Israeli-Jewish, and 63 Palestinian-Israeli children who participated in the study. The researchers interviewed the children on their social and moral concepts using the Social Judgment Instrument (Fox et al., 1999) before the debut of Rechov Sumsum/Shara'a Simsim and then again four months later. The Social Judgment Instrument is a five part interview questionnaire that measures children's stereotypes, cultural knowledge of everyday life, social judgments, identifications of cultural symbols, and knowledge of the television series characters. The Social Judgment instrument was specifically designed to assess the effects of Rechov Sumsum/Shara'a Simsim by including measures that deal with real issues that these groups face on a day to day basis.

After being exposed to the television series for a period of 4 months, the researchers found that with regards to stereotypes, Israeli-Jewish and Palestinian-Israeli children had an increase in positive attitudes towards outgroups; whereas Palestinian children had an increase in negative attitudes towards outgroups. One justification for these negative results may be due to the fact that the Palestinian children saw a version of the show that did not include as many cross-over segments or intergroup contact situations as the version that the Israeli children were exposed to. As such, the Palestinian children may not have had a long enough opportunity to observe, model and learn scripts on how to deal with a contact situation with outgroup members. Further, the pro-social scripts embedded in the television series may not have become accessible or maintained in the children's memory since they were not rehearsed or elaborated on due to the limited amount of exposure to intergroup contact. Consequently and consistent with the contact

literature, Palestinian children may have had more intergroup anxiety, and subsequently more negative attitudes towards outgroup members. Intergroup anxiety has been shown to be a key mediator when assessing the relationship between intergroup contact and positive outcomes (Pettigrew, 2008). A further explanation could be related to the fact that the Palestinian children held a minority status and were being policed by a "threatening" Israeli army in their communities. Having support of authority figures such as police is a key condition needed in order for intergroup contact to reduce prejudice and for positive intergroup relations to develop.

Although the study found an unfortunate increase in negative attitudes towards the outgroup for Palestinian children, the study also found support for the idea that friendships play a key role in promoting positive intergroup relations. The researchers found that Palestinian children were more likely to give friendship justifications to solve intergroup conflict situations after exposure to the show. Research on the contact hypothesis has shown that cross-group friendships increases outgroup empathy, and empathy has been found to evoke altruistic motivation and decrease prejudice and bias.

Another interesting pro-social media intervention titled *Different and the Same* is a prejudice reduction video series created by Family Communications, the producers of Mr. Rogers Neighborhood. The series was specifically designed to help reduce prejudice in elementary school children and to teach them about fairness, awareness, inclusion, and respect. The curriculum consisted of nine 12–15 min videos for children and a teacher’s guide. The themes of the nine videos are (1) name-calling, (2) being excluded from the group, (3) speaking a different language, (4) stereotyping, (5) standing up against prejudice, (6) interracial friendships, (7) cultural identity/ assimilation, (8) definitions of being American, and (9) hate crimes. All of the video scenes take place in a school environment, using animal puppets that are not

representative of any racial group to present very complex ideas, and racially diverse adult role models, played by live actors, who help the puppets resolve difficult intergroup situations.

Social modeling and the tenets of social learning theory were the main techniques used to promote learning and decrease prejudice in this video series. Identification with characters and role models, reinforcing positive behaviors and attitudes, and giving scripts on how to handle interracial conflict were used to promote learning and other pro-social behaviors.

Several researchers have conducted studies using this intervention program with children of various racial and ethnic backgrounds. In the studies conducted by Graves (1999) and Katsuyama (1997), they found that compared to children who did not see the videos, children exposed to the videos held more positive attitudes towards cross-race friendships and were more likely to make cross-race friendship selections. This was particularly true for white children in integrated classrooms. White children exposed to the videos were also more willing to be altruistic towards a child of a different race. Once again, the importance of cross-group friendships emerges as a key factor when examining the relationship between intergroup contact and positive attitudes.

Further, children exposed to the video series also became more aware of group norms as an explanation for prejudice and interpersonal conflict. These findings highlight why it is so important for policies and programs aimed at reducing intergroup conflict to have strong support from the authority, laws, and customs of the land. The success of many of the real world applications of intergroup contact, such as the integration of housing projects, the armed forces, and the school systems could not have happened or produced such positive effects if it was not for the government initiating and supporting the efforts. Social norms and normative beliefs

regulate people's behaviors by helping them evaluate scripts and filter out scripts of behaviors that are inappropriate to the individual and the larger cultural standards.

Last and unfortunately, exposure to the videos did not change children's assessments of how they rated the cognitive and intellectual performance of children of a different race. These results also support the consistent findings in the contact literature that intergroup contact has less of an effect on an individual's cognitions. Although taught in the video series, the children did not learn to modify the negative ideas they held with regards to the intellect of outgroup members. Once again, a change in the way people come to think about, and the preexisting ideas and beliefs that they hold about a certain group of people need to change in order for positive effects of contact to be stable.

Chapter II

Hypotheses and Methods

Testing the Parasocial Contact Theory

Guided by the *contact hypothesis* and *social learning theories*, the main objective of this dissertation is to investigate whether pro-social mixed race television can be used to reduce intergroup tensions and conflicts, and to increase pro-social attitudes and behaviors among people. More specifically, I tested whether white participants' television exposure to positive intergroup contact between black and white characters improved their racial attitudes and behaviors towards black people, and reduced their anxiety about interacting with black people.

To accomplish this, I conducted a true experiment in which I randomly assigned white college students to watch either a television clip showing pro-social mixed race interactions or pro-social all white interactions. Then, I assessed their post television attitudes about black people, anxiety about interacting with black people, empathy toward black people, and preferred social distance from black people with explicit and implicit measures.

On the basis of the prior research above, I developed five conceptual hypotheses about television exposure to intergroup contact and its effect on viewers' attitudes and behaviors that were tested with this experiment.

H1: Television exposure to positive intergroup contact will

a) increase positive attitudes and feelings towards black people

b) increase empathy toward black people

c) decrease intergroup anxiety about black people

H2: Mediation hypotheses:

The effect of exposure to positive intergroup contact on positive attitudes and feelings towards black people will be partially mediated by

a) decreases in intergroup anxiety about black people

b) increases in empathy toward black people

H3: Moderation hypothesis for having black friends -- Having more black friends will strengthen the effect of viewing positive intergroup contact by

a) increasing empathy toward black people

b) decreasing intergroup anxiety about black people

c) increasing positive attitudes and feelings towards black people

H4: Moderation hypotheses for parasocial identification with ingroup (white) characters – identifying more with the white characters will increase the effect of viewing positive intergroup contact by

a) increasing empathy toward black people

b) decreasing intergroup anxiety about black people

c) increasing positive attitudes and feelings towards black people

H5: Within the mixed race condition, perceiving the black characters to be typical of black people in general will be

a) positively related to attitudes and behaviors towards black people

b) positively related to empathy towards black people

c) negatively related to anxiety towards black people

Participants

Participants were 183 undergraduates who were recruited from the introductory communications studies subject pool from the University of Michigan. Participants were given course credit for their participation. About half the participants were drawn from the fall semester participant pool. The majority of these were first semester freshmen. The remainder was drawn from the winter semester participant pool. A power analysis showed that a relatively small population effect size of about r = .20 will be detected 77% of the time with a two-tailed test with this sample size of 183 (i. e., the power of the test is .77). If the effect size in the population is .5, the power would increase to .96.

Participants signed up for the study online and did not know anything about the nature of the study until they arrived at the lab. Once they arrived, participants were told that they were "participating in a study to look at their responses to popular television shows because many academic and industry professionals have expressed interest in understanding what makes certain television shows more enjoyable than others."

Design

The study used a standard Post-Test Only Control Group experimental design. Participants were randomly assigned to one of two groups (TV condition: view pro-social interactions between Black and White actors or view pro-social interactions between all White actors) with two alternative TV clips nested within group as a random factor.

Procedures

Prior to the participant's arrival, the experimenter randomly assigned them to the mixed race or all white television condition and to the specific TV clip they would see within the condition. Immediately upon entering the lab, participants read and signed the consent form.

Next they viewed a computer screen to “confirm their identity” and “coincidentally” to get some limited information about their conversation partners. The computer screen showed a picture of the participant and, seemingly coincidentally, pictures of their conversation partners. Under each participant’s picture their school unique-name and their class standing was given. Participants then “confirmed their identity” by agreeing that we had the correct school unique-name and class standing posted underneath their picture. While the participant’s identity information was correct, their conversation partners had fake identification information and their pictures revealed them to be black college students of the same gender as the participant. After the participant confirmed their identity and had a chance to coincidently view the race of their conversation partners, they watched the assigned TV clip for approximately 15 minutes.

After viewing the TV clip, participants were told to go to another room and set up 3 chairs (that were folded up against a wall) for themselves and their two conversation partners, so they can sit and have a conversation about the TV clip. The participant was also told to go ahead and have a seat “while the researcher goes and checks in on the other two partners.” The room in which the participant set up the chairs was empty except for the chairs. The distance between the subject’s chair and his or her “partners” chairs was measured after the participant finished the study. This dependent measure of social distance between the subject and the other two hypothetical participants was computed as the mean of the two physical distances between the subject’s chair and the other two chairs minus the distance between the two chairs of the conversation partners (see a detailed description in ‘Measures’ section below). This measure is the primary dependent variable of interest.

After a few moments, the researcher returned to the room in which the participant was setting up the chairs and apologized to the participant. The researcher explained to the participant

that one of their conversation partners' TV clip froze and that he/she was running about 10 minutes behind. The participant was then asked to perform a reaction time task (see *Measures* below) and fill out questionnaires while waiting on the other partner to finish viewing the TV clip. After the participant filled out the questionnaires, he or she was debriefed (told that there were really no other participants there and explained the purpose of the study), thanked, and dismissed.

Stimuli

The King of Queens is an American sitcom that ran for nine seasons from 1998 to 2007 on CBS. Based on the *Honeymooners*, the show revolves around Doug and Carrie Heffernan, a loving blue-collar married couple from Queens, N.Y. who are living the everyday blessings, challenges and realities of love, life, family, and marriage. Deacon Palmer is Doug's best friend and co-worker, and Carrie's best friend is Deacon's wife, Kelly. Doug and Carrie are white and Deacon and Kelly are black. The two couples (individually and together) are often showcased hanging out, working together, and at family gatherings. The video clip shows a scene where the house next door to Doug and Carrie goes up for sale, and they are eager and excited about the prospect of having their best friends, Deacon and Kelly become their new neighbors. Doug and Carrie give Deacon and Kelly a tour of the house, and express to each another (and privately to themselves) their love and affection for their best friends. The video clip also displays pro-social behaviors such as smiling, sharing, hugging, and cooperation.

Scrubs is an American comedy that ran from 2001 to 2010 on ABC. The show revolves around J.D., a young attending physician, who begins the series as a staff intern at Sacred Heart Hospital. J.D.'s best friend is Turk, who is a surgeon and also began the series as an intern. J. D. is white and Turk is black. J.D. and Turk were roommates when they attended college as well as

medical school. Two other major characters are Elliot and Carla. Elliot is a white female and Carla is a black female (note: the actress Carla is actually Latina, but she can "pass" as black on TV). Elliot, another intern is also very close with J.D. Her relationship with J.D. becomes romantic on several occasions throughout the series and at several points in time they are also roommates. Carla is the hospital's head nurse, and starts dating Turk early in the series. They later get married and start a family together. Carla is very protective and close to J.D. and affectionally calls him "Bambi". Despite initially disliking each other, Carla and Elliot become very close friends. The show features the characters supporting one another as they juggle personal and professional issues, friendships, patients, romance, and family obligations. *Scrubs* was shown in both the experimental condition and in the control condition. In the experimental (mixed race) condition, the video clip shows a scene where Turk and Carla are just returning from their honeymoon. Turk and J.D are overwhelmed with excitement to see each other again. Later, the scene cuts to when Carla is in labor, and Elliot serves as her best friend and primary caretaker. The clip displays pro-social behaviors such as interracial praying, dancing, singing, hugging, laughing, and smiling.

In the control condition, the video clip shows a scene where Elliot and J.D. are giving gifts to each other and working together as a team to help the interns in the hospital. During times of emergencies at the hospital, Elliot and J.D. are shown calling on each other to help revive their patients and make major medical diagnoses. The clip also shows J.D. and Elliot sharing secrets, medical tips, and relying on each other's strengths to support their individual weaknesses. J.D. and Elliot are also shown congratulating each other and being affectionate with one another.

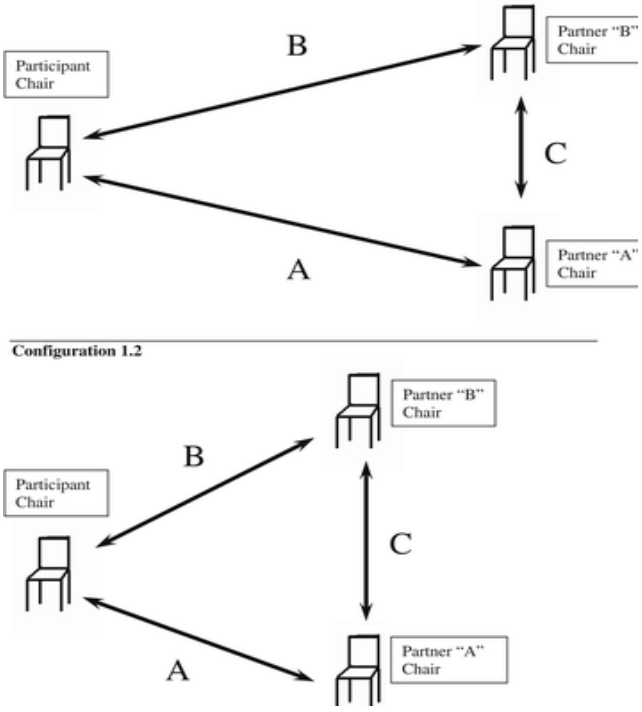
Frasier is an American sitcom that ran from 1993 to 2004 on NBC. A spin-off of *Cheers*, Frasier revolves around the Crane family, Frasier and Niles who are brothers and both psychiatrists, their father Martin who is an injured and retired police officer, Daphne who is a physiotherapist and Martin's caretaker, and Roz who is Frasier's co-worker and close family friend. The show focuses on family and life issues, such as sibling rivalry and chaos, parent-child clashes, love, and friendship. The video clip shows a scene of Daphne's birthday gathering at the Crane's family home. Each family member (including Roz) is giving gifts to Daphne, and everyone is smiling, laughing, and hugging each other. The video clip also shows scenes of intimate conversations between friends and between lovers, expressions of care and concern for one another's troubles, sharing and empathizing with each other's fears, and a scene of Roz helping Frasier with household chores.

Measures

Social Distance and Prejudice Measures

Physical measure of social distancing. A physical social distance measure was used to assess whether white participants who were exposed to the pro-social intergroup TV clip would place their chairs closer to the black conversation partners. Figure 1. below illustrates the configuration of chairs. To calculate the dependent variable, the distance the participant put between the two fake conversation partners chairs (C in the figure) was subtracted from the average distance between the participant's chair and each of the other two chairs (A + B / 2 in the figure). Thus, the higher the value of this dependent variable, the greater the social distance a participant is placing between themselves and their black conversation partners (accounting for the distance between the chairs of the partners). The measurement and distance index was modeled after the procedures designed by Goff, Davies, and Steele (2008).

Figure 1. Physical Measure of Social Distance. Imagine that A=B>C in Configuration 1.1 and A=B=C in Configuration 1.2. In Configuration 1.1 the participant is social distancing from the conversation partners and the dependent variable will be greater than 0. In Configuration 1.2 no social distancing is occurring and the value of the dependent variable will be 0.



Drawing taken from "The space between us: Stereotype threat and distance in interracial contexts," by Goff, P., Steele, C., and Davies, P., 2008, *Journal of Personality and Social Psychology*, 94, p.94.

Social distance measure. Bogardus' (1967) social distance measure is a 5-item scale that assesses racial attitudes and the level of acceptance of members from different ethnic groups (e.g. "Having blacks as your next door neighbors", "About having a close relative marry a black person"). Respondents were asked to indicate their level of opposition on a 5-point scale ranging from 1 (*very much in favor*) to 5 (*very much opposed*). It is important to note that social distance is a commonly accepted general measure of attitudes and behaviors, and is quite often framed as a measure of prejudice as well as a measure of comfort, intimacy, and closeness. In this sample, the reliability for all 5 items was .90

Multidimensional racial attitudes scale. The Multidimensional Racial Attitudes Scale (Czopp & Montheith, 2006) is a 30-item questionnaire that assesses both positive stereotypes and negative prejudices towards African-Americans. The present study only uses 5 items that assess prejudices related to inferiority, government policies, and interracial contact (e.g. "Housing laws should be passed that encourage greater racial integration of neighborhoods", "I think it would be fun to have a black roommate"). Responses are scored on a 7-point scale which ranged from 1= strongly disagree, to 7=strongly agree. The scale was scored so a higher score indicated more positive racial attitudes toward African-Americans. In this sample, the reliability for all 5 items was .66.

Negative affect toward African-Americans. A feeling thermometer scale was used to assess participants' general feelings towards different religious, racial, and sexually oriented groups. One item on the scale asks participants to rate how warm or cold they feel towards African-Americans on a 7-point scale ranging from extremely warm = 1 to extremely cold = 7.

Measures of Parasocial Identification

Four scales were used to assess the various components of participant's parasocial interactions and relationships with the televised main characters.

Perceived Homophily. Five items were taken from McCroskey, Richmond, and Daly (1975) Perceived Homophily Scale. The items assess how similar or different the character is from the participant on a 7-point scale (e.g., "Please rate how much each character is similar to you", "Please rate how much each character thinks like you"). In this sample, the reliability for all 5 items was .82.

Social Attraction. Social attraction (used as a measure of parasocial interaction) was assessed using a subset of the Interpersonal Attraction measure developed by McCroskey and

McCain (1974). The scale consists of five items on a 7-point scale ("strongly agree" to "strongly disagree") that examine how desirable social interaction with the character would be (e.g., "I think Deacon could be a friend of mine"). In this sample, the reliability for all 5 items was .84.

***Parasocial Interaction*.** According to a meta-analysis of 30 parasocial interaction studies, the social attractiveness of the character and their perceived realism are the two items most relevant and most strongly associated with parasocial interaction (Schiappa, Allen, Gregg, 2006). Thus, parasocial interaction was assessed with these two items on a yes/no scale (e.g. "I would like to get to know a person like Doug", and "Doug is like a real person to me"). In this sample, the reliability for both items was .33.

Uncertainty Reduction. Five items were taken from Kellerman and Reynolds (1990) Measurement Scale for Level of Uncertainty (and used as a measure of identification). The scale assesses how well the participant feels he or she knows each character (e.g. "How well do you think you can predict Deacons feelings and emotions?"). Responses were on a 4-point scale which ranged from 1= very well, to 4= not very well. In this sample, the reliability for all 5 items was .87.

Parasocial Identification with the White Characters.

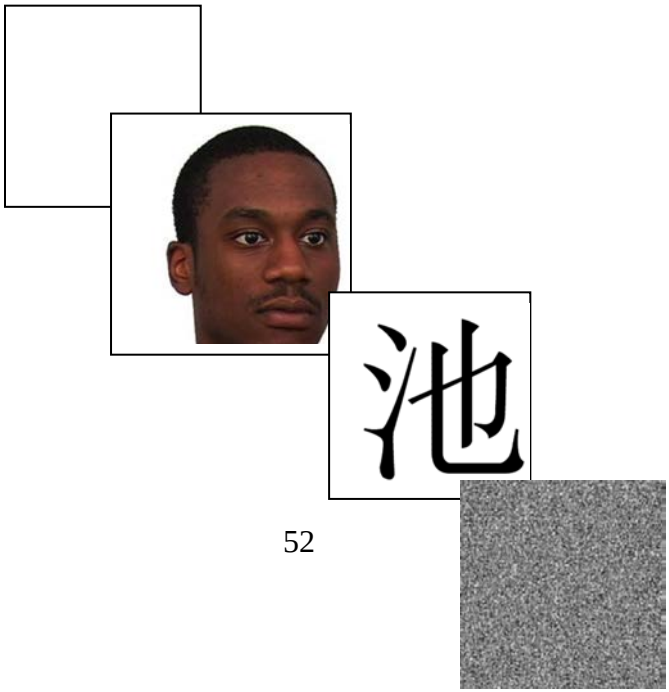
Factor analysis and reliability analysis were conducted on the four "parasocial identification" scales (above) to construct a single scale to measure *parasocial identification with the white (ingroup) characters*. Although the literature makes a conceptual distinction between "identification" "parasocial interactions" and "similarity" the three concepts are highly correlated with (and confounded within) each other (Eyal & Rubin, 2003**;** Tian & Hoffner, 2010). Factor analysis and reliability analysis revealed 4 factors consisting of 17 items total and a reliability alpha of 85.

Empathy towards Black People

Scale of Ethnocultural Empathy. The Scale of Ethnocultural Empathy (Wang et al., 2003) is a 31 item questionnaire that measures empathy toward people of racial and ethnic backgrounds different from one's own. The scale assesses four types of empathy: empathic feeling and expression, empathic perspective taking, acceptance of cultural differences, and empathic awareness. The present study only uses 14 of the items that make up the empathic feelings and expressions (e.g. "When other people struggle with racial or ethnic oppression, I share their frustration"), and the empathic perspective taking (e.g. "It is difficult for me to relate to stories in which people talk about racial or ethnic discrimination they experience in their day to day lives") subscales. Participants were asked to rate the extent to which they agree or disagree with each statement on a 5-point scale ranging from 1 (strongly disagree) to 5 (strongly agree). In this sample, the reliability for all 14 items was .70.

Intergroup Anxiety towards Black People

Intergroup anxiety towards black people. Standard priming procedures were used to assess participant's intergroup anxiety towards black people. In short, participants were primed with a picture of a black or white person, followed by the presentation of a Chinese pictograph, and then a mask. Participants then quickly rated how the Chinese pictograph made them feel. Here is an example:



Similar to the priming procedures of Payne and colleagues (2005, 2007), each trial began with a pre-mask (white square) displayed for 2000ms, followed by the presentation of race (black or white face) for 75ms. Next participants were shown a blank screen for 125ms and then the Chinese pictograph for 750ms. Following the pictograph, a post-mask (gray square) was presented until the participant pressed the response key. The next trial began as soon as the participant made a response. All images appeared in the middle of the computer screen. All participants completed a total of 24 trials that included 12 black faces and 12 white faces, in a randomly ordered fashion. The task took approximately 5 minutes. Anxiety scores were created by taking the average of the 12 black faces and subtracting it from the average of the 12 white faces.

The participants were presented with the following message on the computer screen:

Thanks for watching the television clip! Although you may have seen the show before, it may be new for some of our participants. Prior research has shown that most people have a bias and tend to judge new material in a certain manner.

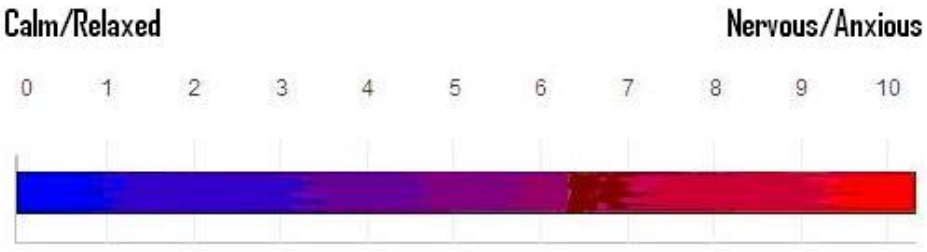
The following task is designed to see your snap judgments to novel stimuli.

We will show you three images flashed one after another on the computer screen. The first image will be a familiar image (a person's face)--this is just to bring everyone to the same starting point. The second image will be an unfamiliar Chinese symbol. The last image is a blurry gray box. Do nothing in response to this box; it is just to prepare you for your next trial.

Your task is to evaluate how the Chinese symbols make you feel as quickly as possible.

Using the mouse, you will record how the Chinese symbol makes you feel on a color coded feeling thermometer.

Here is what the feeling thermometer looks like.



Clicking on or near the RED means the symbol makes you feel more ANXIOUS or NERVOUS. Clicking on or near the BLUE means the symbol makes you feel more CALM or RELAXED.

Remember, there are no correct answers; please respond with your own "gut" feeling as quickly as possible!

You will now have 3 practice trials.

Remember RED=more anxious and BLUE=more calm

Please place one hand on the mouse, and when you are ready press the next button.

***Participant completes 3 practice rounds**

You are now finished with the practice trials. When you are ready, please place your fingers on the appropriate keys and press the spacebar in order to start the experiment.

***Priming Exercise begins**

You are now done with this task. Please press the space bar to finish the study.

Group Typicality.

Two items assessed perceptions of how each major character was similar or representative of their respective group (e.g., "How similar is Deacon to other black people?"). Responses ranged from 1 (not at all) to 5 (a great extent). In this sample, the reliability for both items was .51.

Previous Black Contact.

One item assessed how much direct social contact participants have with black individuals. The item scores on a 4-point scale ranging from 1 = "I do not know any black people personally; only distant or superficial contact" to 4 = "I have more than 3 black friends".

Movie Satisfaction Scale.

Ten items asked participants to indicate their level of satisfaction (e.g. "The movie was enjoyable", "The movie was boring") with the television clip on a scale of 1 (strongly disagree) to 10 (strongly agree).

Other Self-Concepts and Behaviors that may Contribute to a Person's Level of Attitudes and Behaviors

Prior Exposure to Shows. One item asked participants to indicate the amount of time they spent watching the television clips (e.g. Frasier) on a 6 point scale, with 1= never and 6 = daily.

Interaction Anxiousness Scale. The Interaction Anxiousness Scale (Leary, 1983) is a 15-item scale which assesses how socially anxious and nervous people feel in various social situations (e.g. "Parties often make me feel anxious and uncomfortable", "I usually feel comfortable when I'm in a group of people I don't know"). Responses are scored on a 5-point scale which ranges from 1= not at all characteristics of me, to 5= extremely characteristics of me.

Pro-social Tendencies Measure. The Pro-social Tendencies Measure (Carlo & Randall, 2002) consists of 23 items and assess six types of pro-social behaviors: altruistic, compliant, emotional, dire, public, and anonymous (e.g. “When people ask me to help them, I don’t hesitate”, “I think that helping others without them knowing is the best type of situation”). Participants were asked to rate the extent to which each statement described themselves on a 5-point scale ranging from 1 (does not describe me at all) to 5 (describes me greatly).

Chapter III

Results

Analysis Plan

To test for main effects, the data were first analyzed with a mixed model one-way analyses of variance (ANOVA) with television condition (white vs. mixed race) as the main independent variable and with the specific TV clip seen as a two-level random factor nested within television condition. To test the first hypothesis about the effects of intergroup contact on attitudes and behaviors toward black people, I used social distance assessed by the physical distance between chairs (as described in the measures section) as the primary dependent variable in the ANOVA. Then, I repeated the ANOVA for the other five dependent variables in Hypothesis 1: empathy, anxiety, feelings, racial attitudes, and the scale of social distance towards black people.

Path analysis techniques were then used to test the mediation hypotheses. The mediators tested included empathy and anxiety towards black people. To test each moderation hypothesis, the hypothesized moderator was added as another independent variable to the mixed-model analysis of variance model used to test the main effect of condition. The potential moderator's main effect and interaction with the TV clip condition were tested. Continuous moderators were standardized before being entered in the analysis. The key test for moderation was whether the interaction was significant between the TV clip condition (white vs. mixed race) and the

hypothesized moderator. The moderators tested included having black friends (which was dichotomized) and the level of parasocial identification with white characters.

Preliminary Analyses

Before testing any of the hypotheses, a number of preliminary analysis were conducted. First, the means and standard deviations were computed for the six dependent variables. These are shown in Table 1. Next, I examined whether the specific TV clip chosen within a condition, the specific research assistant who ran the participant, or the semester in which the participant was run significantly affected the results.

Table 1. Overall Means and Standard Deviations for the Dependent Variables for All Participants

Scale Items	N	Mean	Std. Deviation
*Relative Chair Distance	183	1.48	11.61
Intergroup Anxiety	179	-5.30	30.32
Social Distance	183	2.31	.75
Negative Feelings Thermometer	183	2.96	1.04
Positive Racial Attitudes	183	4.78	.91
Empathy	183	3.58	.65

***** The higher the value of this dependent variable, the greater the social distance a participant is placing between themselves and their black conversation partners.

Comparisons of Television Ratings between the Two Versions of Each Television Clip. Multivariate Analysis of Variances (MANOVAs) were used to test for significant differences between the two TV clips in the control condition, and between the two TV clips in

the experimental condition, on a variety of potentially important television characteristics. The multivariate results were significant for the particular television clip watched in the experimental condition, Pillai's Trace = .233, F = 2.644, df = (10,87), p = .007, indicating significant differences in some characteristics of the television clips. The univariate F tests show a significant difference between the two TV clips in how exciting, F = 11.93, df = (1,96), p = .001, involving, F = 3.94, df = (1,96), p = .05, and stimulating, F = 7.63, df = (1,96), p = .007 they were. Participants found *Scrubs* to be more exciting, involving, and stimulating than *King of Queens*. There were no significant differences between the two TV clips in how absorbing, arousing, boring, enjoyable, entertaining, frustrating, or fun they were.

The multivariate results were also significant for the particular TV clip watched in the control condition as well, Pillai's Trace = .220, F = 2.09, df = (10,74), p = .036, indicating significant differences in some characteristics of the television clips. The univariate F tests showed that there was a significant difference between the two television clips, in that *Scrubs* was more absorbing, F = 5.02, df = (1,83), p = .028, enjoyable, F = 8.40, df = (1,83), p = .005, entertaining, F = 11.16, df = (1,83), p = .001, exciting, F = 8.19, df = (1,83), p = .005, fun, F = 17.02, df = (1,83), p = .000, involving, F = 5.81, df = (1,83), p = .018, and stimulating, F = 6.54, df = (1,83), p = .012 than *Frasier*. There were no significant differences between the two television clips in how arousing, boring, or frustrating they were.

Comparisons of Scores on the Dependent Variable between the Two Versions of Each Television Clip.

Multivariate Analysis of Variances (MANOVAs) were also used to test for significant differences on all the dependent variables between the two TV clips in the control condition, and between the two TV clips in the experimental condition. The multivariate results were not

significant for the particular TV clip watched in the experimental condition, Pillai's Trace = .034, F = .501, df = (6,86), p = .806, or the control condition, Pillai's Trace = .058, F = .783, df = (6,77), p = .586, indicating no significant differences in relative chair distance, anxiety towards black people, and the self-report measures of attitudes (i.e. social distance, multidimensional racial attitudes, feeling thermometer toward African Americans, and empathy towards black people) between the two television clips in each condition.

Comparisons of Scores on the Dependent Variables between Research Assistants. Multivariate Analysis of Variances (MANOVAs) were also used to test for significant differences on all the dependent variables between the research assistants in the control condition and between research assistants in the experimental condition. The multivariate results were not significant for the particular research assistant in the experimental condition, Pillai's Trace = .590, F = 1.32, df = (42,510), p = .09, or the control condition, Pillai's Trace = .509, F = 1.19, df = (36,462), p = .214, indicating no significant differences in relative chair distance, anxiety towards black people, and the self-report measures of attitudes (i.e. social distance, multidimensional racial attitudes, feeling thermometer toward African Americans, and empathy towards black people) between the research assistants in each condition.

Comparisons of Scores on the Dependent Variables between Semesters in which Participants Were Run.

Multivariate Analysis of Variances (MANOVAs) were also used to tests for significant differences on all the dependent variables between the semesters in which the data were collected in the control condition and between the semesters in which the data were collected in the experimental condition. The multivariate results were not significant for the particular semester in which the data were collected in the experimental condition, Pillai's Trace = .048, F = .725, df

= (6,86), p = .630, indicating no significant differences in relative chair distance, anxiety towards black people, and the self-report measures of attitudes (i.e. social distance, multidimensional racial attitudes, feeling thermometer toward African Americans, and empathy towards black people) between the two semesters in which the data were collected. However, the multivariate results were significant for the semesters in which the data were collected in the control condition, Pillai's Trace = .190, F = 3.02, df = (6,77), p = .011, indicating significant differences in some dependent variables. The univariate F tests show a significant difference between the two semesters in which the data were collected on the chair distance measure, F = 3.69, df = (1,84), p <.001. Participants in the control condition placed their chairs significantly closer to their black conversation partners during the Winter semester than in the Fall semester. There were no significant differences in anxiety towards black people or on the self-report measures of attitudes (i.e. social distance, multidimensional racial attitudes, feeling thermometer toward African Americans, and empathy towards black people) between the two semesters in which the data were collected.

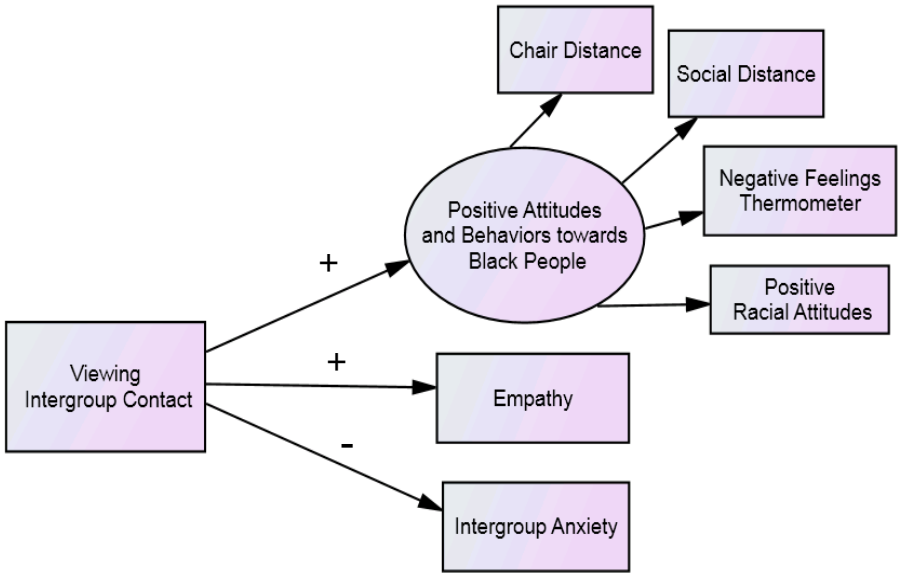
Comparisons of Scores on the Dependent Variables between Potential Confounding Factors.

Multivariate Analysis of Variances (MANOVA's) were also used to test for significant differences between participants in the control condition and experimental condition on prior exposure to the television shows, general anxiety when in interactions with others, and general pro-social tendencies. The multivariate results were not significant between conditions, Pillai's Trace = .418, F = .948, df = (3,179), p = .42, indicating no significant differences in prior exposure to the television shows, anxiety when in interactions with others, and pro-social tendencies between the participants in the two conditions.

Testing the Main Hypotheses

My first hypothesis was that television exposure to positive intergroup contact would a) increase empathy toward black people b) decrease intergroup anxiety about black people, and c) increase positive attitudes and feelings towards black people. This hypothesis is diagrammed in Figure 2.

Figure 2. Hypothesis 1: The Direct Effects of Exposure to Positive Intergroup Contact



Given that the preliminary analyses showed that the specific television clip used and the semester in which the participant was run could affect the dependent variables, it was decided to include these variables in the analyses testing the first hypotheses. Therefore, in order to assess whether television exposure to positive intergroup contact affects white participant's attitudes and behaviors, anxiety, and empathy towards black people, I conducted a series of two-way mixed model analyses of variance that examined the effect of the semester the data were collected and television condition (white vs. mixed race) on the dependent variables, with television treated as a random effect nested within condition and semester as a categorical

covariate. The dependent variables tested were social distance as measured by relative chair distance, anxiety towards black people, and the self-report measures of attitudes (i.e. social distance scale, multidimensional racial attitudes, feeling thermometer toward African Americans, and empathy towards black people) The means for each condition in each semester are shown in Table 2. The means collapsed across semesters are shown in Table 3.

Table 2. Means and Standard Deviations for Semester of Data Collection as a Moderator of the Relationship between Viewing Intergroup Contact and Attitudes and Behaviors for All Participants

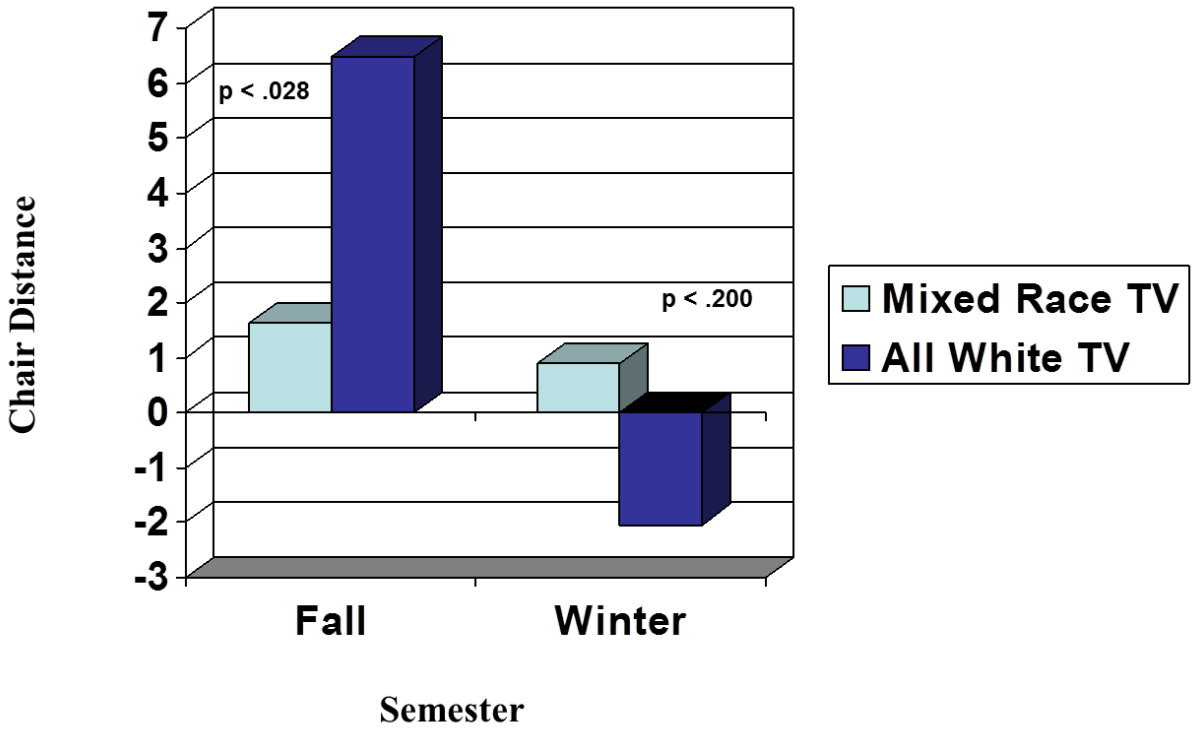
	Mixed Race (*n*=103)		All White (*n*=91)	
	Fall 2011	Winter 2012	Fall 2011	Winter 2012
Scale Items	*M (SD)*	*M (SD)*	*M (SD)*	*M (SD)*
Relative Chair Distance	1.64 (12.78)	.89 (11.06)	6.49 (9.35)	-2.05 (11.61)
Intergroup Anxiety	-9.63 (30.42)	-10.43 (33.79)	4.50 (23.95)	-3.37 (29.33)
Social Distance	2.32 (0.83)	2.29 (0.69)	2.36 (0.83)	2.28 (0.70)
Negative Feelings Thermometer	3.00 (0.96)	2.80 (1.09)	3.08 (1.12)	3.00 (0.98)
Positive Racial Attitudes	4.59 (0.96)	4.78 (0.95)	4.85 (0.87)	4.90 (0.85)
Empathy	3.33 (0.49)	3.66 (0.61)	3.72 (0.60)	3.58 (0.56)

Table 3. Mean Differences in Attitudes and Behaviors for Mixed Race and All White Conditions for All Participants

	Mixed Race (*n*=103)	All White (*n*=91)	Mean Comparisons
	M *(SD)*	*M* *(SD)*	Univariate *F* (1,186)
Scale Items			
Relative Chair Distance	0.59 (15.26)	2.38 (11.37)	0.24
Intergroup Anxiety	-9.10 (41.19)	0.09 (27.34)	4.62*
Social Distance	2.30 (0.74)	2.33 (0.76)	0.07
Negative Feelings Thermometer	2.88 (1.02)	3.09 (1.05)	1.92
Positive Racial Attitudes	4.70 (0.94)	4.84 (0.89)	1.12
Empathy	3.53 (0.69)	3.64 (0.58)	2.14

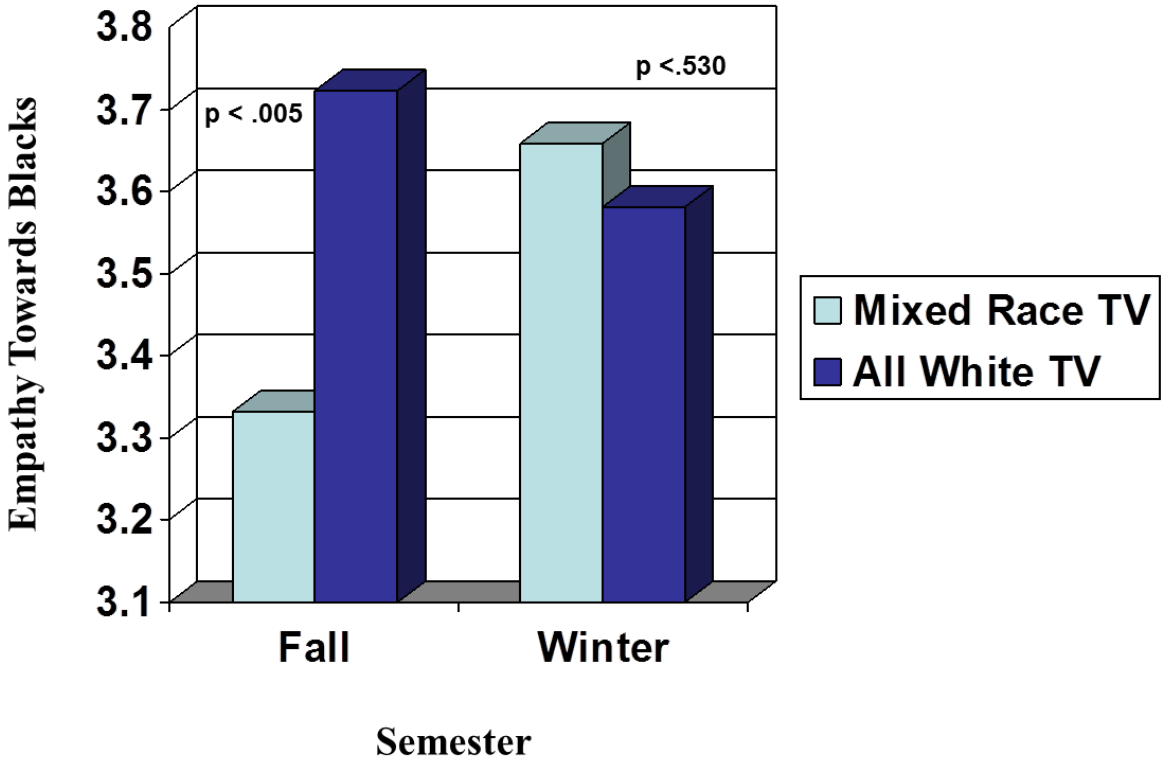
There was a significant interaction between the effects of television condition and the semester in which the data were collected on the relative chair distance measure, F (1, 177) = 5.23, p = .023. This interaction is diagrammed in Figure 3. Remember that lower chair distance scores means less social distancing from black people. Planned post-hoc analysis showed that among participants from the Fall semester, those who were in the all white television condition put their chairs significantly farther away from their black conversation partners (p <.028) than participants who were in the mixed race television condition. Among participants in the Winter semester, there were no significant differences in chair distance whether the participants were in the mixed race or the all white television condition. The main effect for condition collapsing across semesters was marginally significant (F (1, 177) = 5.93, p = .073).

Figure 3. The Semester in which the Data were Collected Moderates the Effect of Viewing Intergroup Contact on Chair Distance for All Participants



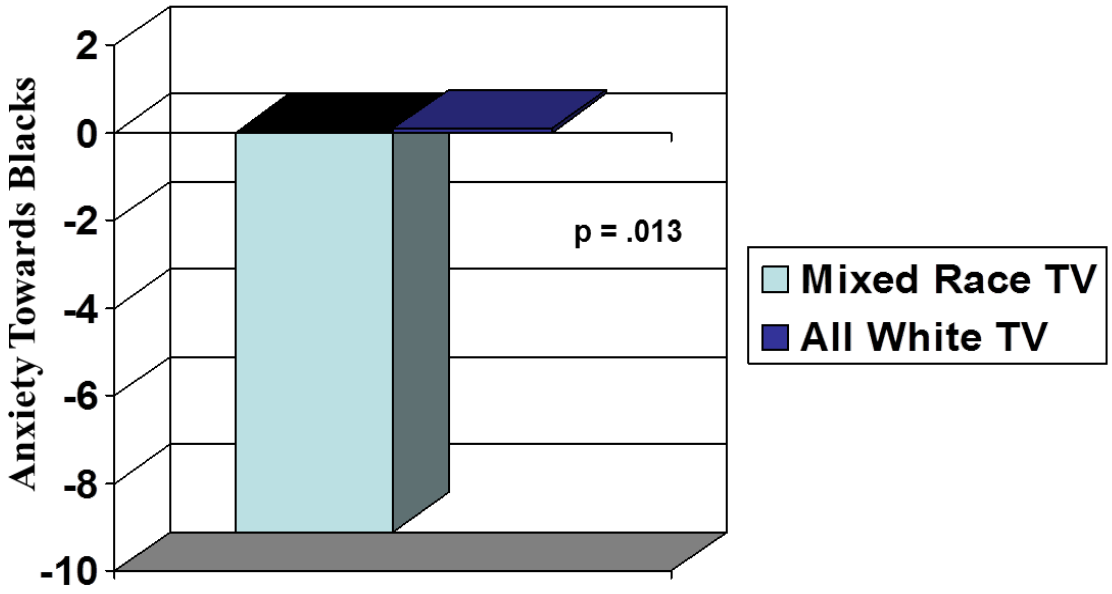
There was also a significant interaction between the effects of television condition and the semester in which the data were collected on the empathy measure, F (1, 176) = 6.45, p =.012**.** This result is diagrammed in Figure 4. Planned post-hoc effects analysis showed that participants in the Fall semester who participated in all white television condition had greater empathy for black people than participants who participated in the mixed race television condition (p =. 005). However, for participants in the Winter semester, there were no significant differences in empathy towards black people whether the participants were in the mixed race or the all white television condition. The main effect for condition collapsing across semesters was not significant (F (1, 176) = 1.51, p = .343).

Figure 4. The Semester in which the Data were Collected Moderates the Effect of Viewing Intergroup Contact on Empathy for All Participants



While there were no significant interaction effects on the anxiety measure (F (1, 173) = .612, p = .435), there was a main effect for anxiety towards black people in both semesters (F (1, 173) = 36.88, p = .013). This result is diagrammed in Figure 5. The results show that participants who were exposed to the mixed race television clip had significantly less anxiety towards black people than participants who were exposed to the television version with all white characters.

Figure 5. Mean Anxiety Scores for Each Type of TV Clip for All Participants

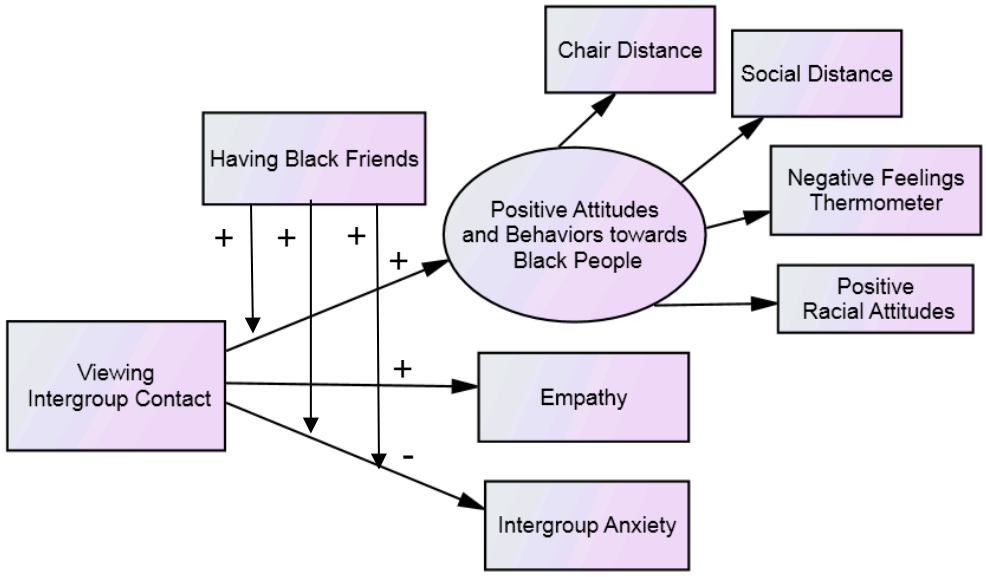


There were no significant interaction effects of condition and the semester in which the data were collected on social distance, racial attitudes, or feelings towards African-Americans. There were also no main effects of condition on these variables.

What Moderates The Effect?

Having Black Friends. I hypothesized that having more black friends would strengthen the effect of viewing positive intergroup contact and a) increase empathy toward black people b) decrease intergroup anxiety about black people and c) increase positive attitudes and behaviors towards black people. This hypothesis is diagrammed in Figure 6.

Figure 6. Hypotheses About Moderation of "Having Black Friends"



Because the main analysis showed condition effects on chair distance and empathy varied by semester, I tested the moderation hypotheses in Figure 6 for chair distance and empathy separately for each semester (see Table 4). I tested the moderating hypotheses for the other dependent variables collapsed across semesters.

Two-way mixed-model ANOVAs with the specific television clip nested within the television condition were conducted that examined whether there was an interactive effect of having black friends and television condition (white vs. mixed race) on the dependent variables (see Table 5). There was a significant interaction between the effects of television condition and having black friends on the relative chair distance measure for the Fall semester only, F (1, 76) = 4.96, p = .029. This is diagrammed in Figure 7 below. Planned post-hoc analysis showed that participants in the mixed raced television condition who reported having black friends placed their chairs significantly closer to their black conversation partners than participants in the all white television condition who reported having black friends (p = .004). However, for participants who did not have black friends, the television condition had no significant effect,

though the trend was for exposure to the mixed race television clip to increase chair distance. The main effect for condition was not significant (F (1, 8.61) = .551, p = .478.

There were no significant interactions between the effects of television condition and whether participants had black friends on anxiety towards black people F (1, 172) = 1.91, p = .276, social distance F (1, 177) = 2.02, p = .157, multidimensional racial attitudes F (1, 177) = .340, p = .561, feelings toward African Americans F (1, 177) = .551, p = .459, chair distance for the Winter semester F (1, 94) = .593, p = .443, and empathy towards black people F (1, 76) = .273, p = .603; F (1, 95) = 1.63, p = .205 for the Fall & Winter semesters respectively. However it is worth noting that the direction of the mean scores on anxiety towards black people (shown in Figure 8) was consistent with the mean scores for chair distance in Figure 7.

Figure 7. Having Black Friends Moderates the Effect of Viewing Intergroup Contact on Chair Distance for Fall participants

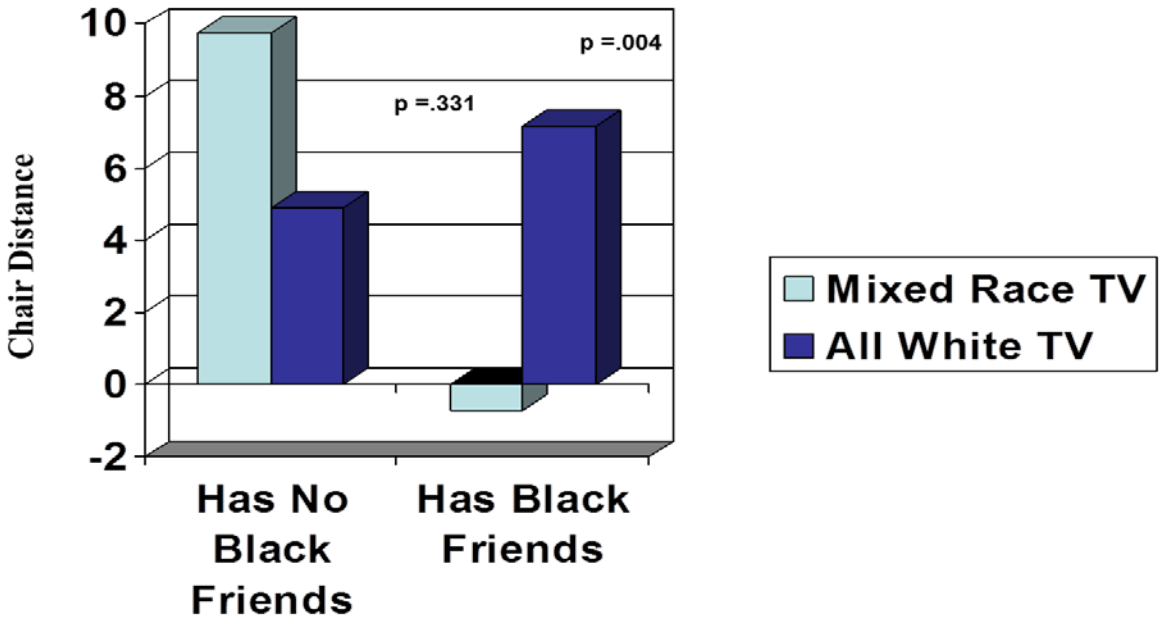


Figure 8. Having Black Friends and the Effect of Viewing Intergroup Contact on Anxiety for All Participants

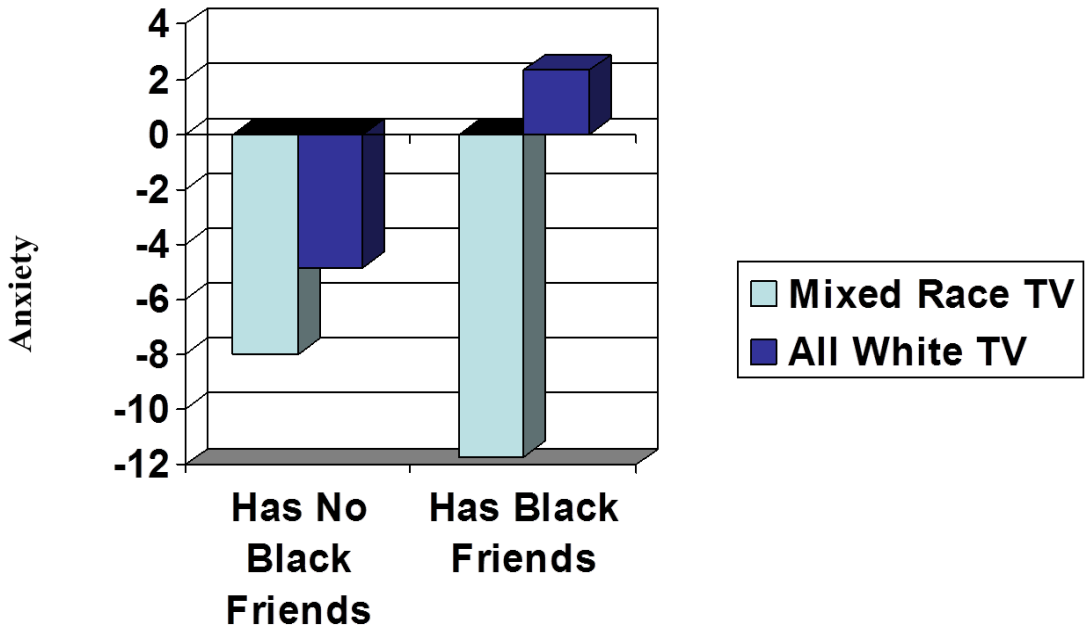


Table 4. Means and Standard Deviations for having Black Friends as a Moderator of the Relationship between Viewing Intergroup Contact and Chair Distance and Empathy by Semester for All Participants

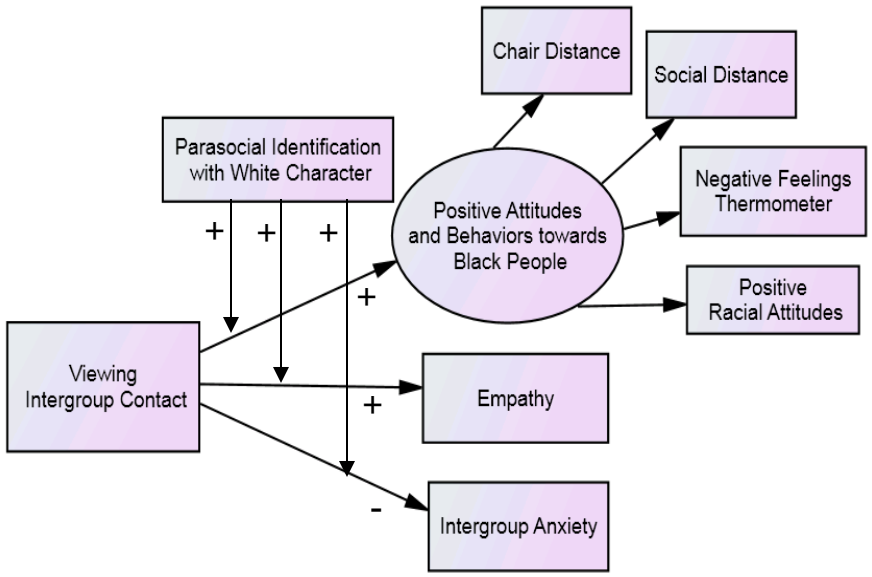
	Fall (*n*=82)				Winter (*n*=101)			
	Mixed Race (*n*=44)		All White (*n*=38)		Mixed Race (*n*=54)		All White (*n*=47)	
	Has Black Friends	Has No Black Friends	Has Black Friends	Has No Black Friends	Has Black Friends	Has No Black Friends	Has Black Friends	Has No Black Friends
Scale Items	*M* (*SD*)	*M* (*SD*)	*M* (*SD*)	*M* (*SD*)	*M* (*SD*)	*M* (*SD*)	*M* (*SD*)	*M* (*SD*)
Relative Chair Distance	-.71 (12.36)	9.6 (11.33)	7.2 (9.93)	4.63 (7.67)	1.60 (10.23)	-.97 (13.47)	-2.40 (11.04)	-1.35 (13.00)
Empathy	3.38 (0.60)	3.37 (0.86)	3.77 (0.63)	3.6 (0.50)	3.80 (0.71)	3.30 (0.61)	3.65 (0.53)	3.46 (0.62)

Table 5. Means and Standard Deviations for having Black Friends as a Moderator of the Relationship between Viewing Intergroup Contact and Attitudes and Behaviors for All Participants

	Mixed Race		All White	
	Has Black Friends	Has No Black Friends	Has Black Friends	Has No Black Friends
Scale Items	*M* *(SD)*	*M* *(SD)*	*M* *(SD)*	*M* *(SD)*
Intergroup Anxiety	-11.65 (30.93)	-8.04 (34.72)	2.31 (26.74)	-4.83 (28.18)
Social Distance	2.20 (0.76)	2.60 (0.62)	2.30 (0.71)	2.35 (0.85)
Negative Feelings Thermometer	2.71 (0.98)	3.40 (1.04)	2.90 (1.03)	3.35 (1.02)
Positive Racial Attitudes	4.73 (0.91)	4.56 (1.09)	4.98 (0.88)	4.65 (0.78)

Parasocial Identification with the White Character. Based on social learning theories, I hypothesized that identifying more parasocially with the white characters would increase the effect of viewing positive intergroup contact and a) increase empathy toward black people b) decrease intergroup anxiety about black people, and c) increase positive attitudes and feelings towards black people. This hypothesis is diagrammed in Figure 9.

Figure 9. Diagram Showing the Hypothesized Moderating Effect of Parasocial Identification with the White Character

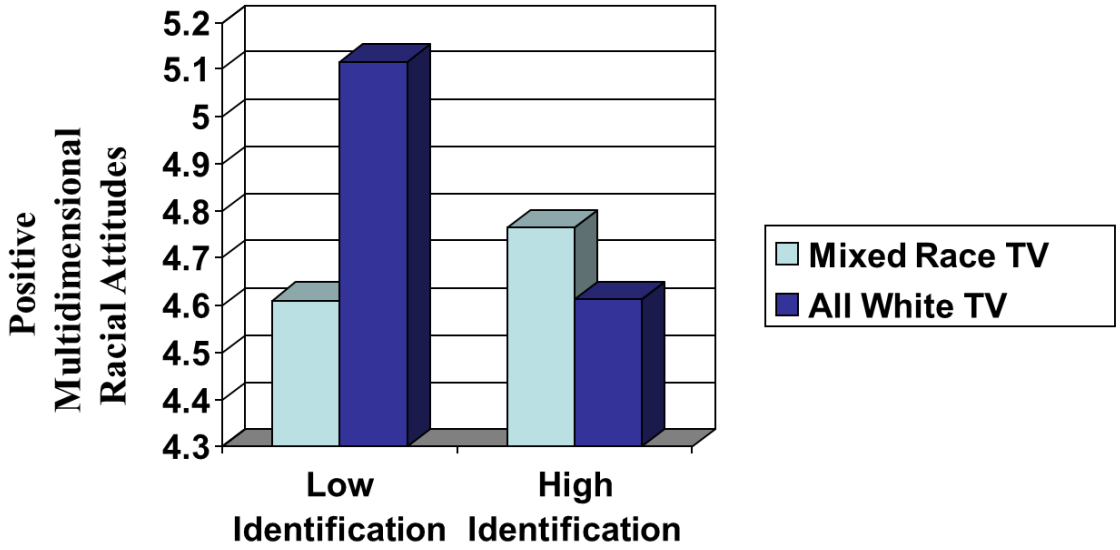


Two-way mixed-model ANOVAs with specific television clip nested within the television condition were conducted that examined whether there was an interactive effect of parasocial identification with the white television characters and television condition (white vs. mixed race) on the dependent variables: chair distance, anxiety towards black people, and the self-report measures of attitudes (i.e. social distance, multidimensional racial attitudes, feelings towards African Americans, and empathy towards black people).

There was a significant interaction between the effects of television condition and parasocial identification with white characters on multidimensional racial attitudes, F (1,177) = 6.38, p = .012, and a marginally significant interactive effect on feelings towards African-Americans, F (1,177) = 3.57, p = .061.

The interactive effect of condition and parasocial identification with the white character on racial attitudes is diagrammed in Figure 10. The high identification group in the figure represents those who scored above the median on parasocial identification with the white character and the low group represents those who scored below the median. Planned post-hoc analysis showed that viewing the mixed race television clip significantly decreased positive racial attitudes for those low on parasocial identification with the white character ($p < .001$) while viewing the mixed race television clip increased (but not significantly, $p = .43$) positive racial attitudes for those who identified highly with the white character. The main effect for condition collapsing across levels of identification was not significant (F (1, 177) = 2.56, p = .264.

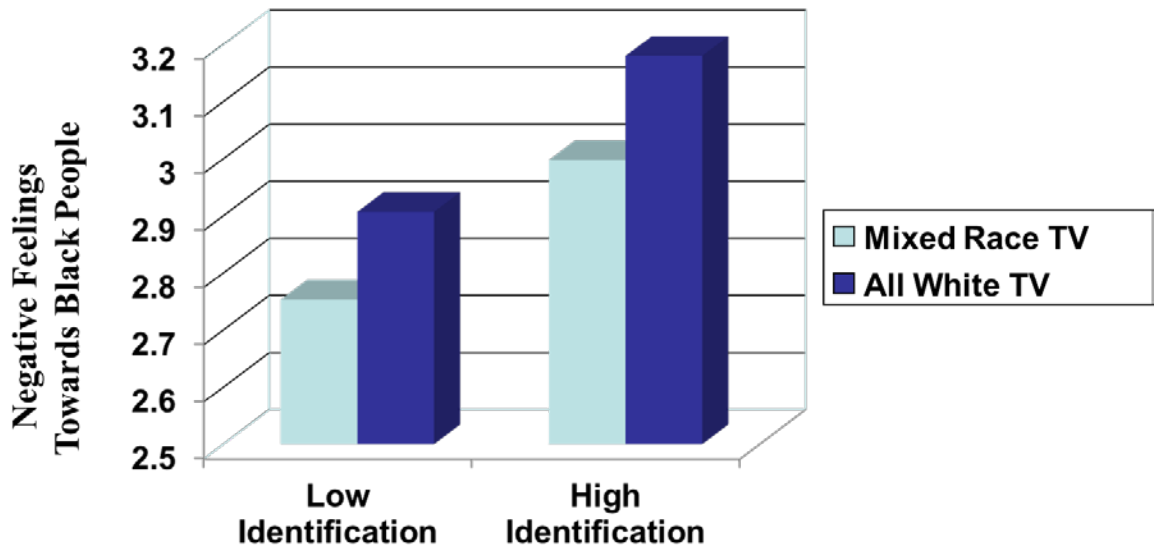
Figure 10. Parasocial Identification with the White Character Moderates the Effect of Viewing Intergroup Contact on Multidimensional Racial Attitudes for All Participants



The marginally significant moderating effect of parasocial identification with the white character on negative feelings towards black people is diagrammed in Figure 11. Post-hoc simple effects analysis showed that for participants who identified more with the white characters, the

mixed race condition significantly decreased negative feelings towards black people (p =.022). For participants who identified less with the ingroup character, the movie condition had no significant effect, though the trend was for exposure to the mixed race movie to decrease negative feelings. However, the pattern of results seems mostly to reflect a main effect that higher parasocial identification with the white characters seems to be correlated with more negative feelings toward African-Americans (F (1,177) = 1.46, p = .23. The main effect for condition collapsing across levels of identification was not significant (F (1, 177) = 2.07, p = .302.

Figure 11. Identification with the White Character Moderates the Effect of Viewing Intergroup Contact on Feelings Towards Black People for All Participants



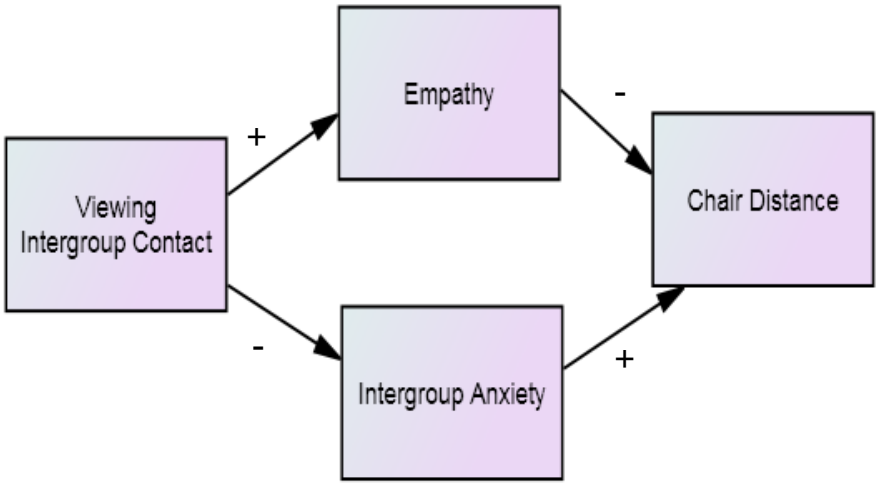
There were no significant interactions between the effects of television condition and parasocial identification with the white character on intergroup anxiety towards black people F (1, 172) = 1.02, p = .315, social distance F (1, 177) = .425, p = .515, or empathy towards black people F (1, 76) = 1.78, p = .187; F (1, 95) = 1.58, p = .211 for the Fall & Winter semesters

respectively, or relative chair distance F (1, 76) = .868, p = .355; F (1, 94) = .694, p = .407 for the Fall & Winter semesters respectively.

What Mediates the Effects?

Based on the contact hypotheses, I hypothesized that the effect of exposure to positive intergroup contact on positive attitudes and feelings towards black people would be partially mediated by a) increases in empathy toward black people, and b) decreases in intergroup anxiety about black people. These hypotheses are diagrammed in Figure 12.

Figure 12. Hypothesis Related to Mediation of the Effect of Viewing Intergroup Contact on Chair Distance



Generally speaking, mediation occurs when (1) the independent variable significantly affects the mediator, (2) the independent variable significantly affects the dependent variable in the absence of the mediator, (3) the mediator has a significant unique (from the independent variable) effect on the dependent variable, and (4) the direct effect of the independent variable on the dependent variable shrinks upon the addition of the mediator to the model (Baron & Kenny, 1986).

Below I examine the mediation hypotheses for the dependent variables that have been shown to be affected by the television condition (point 2 above). It makes no sense to examine mediation for the other dependent variables. For example, I only examined the mediation hypotheses with the chair distance measure for the Fall semester because chair distance was not affected by the television condition in the winter semester.

Mediation by Empathy. Using SPSS Amos, regressions were conducted with the fall semester data to examine the effects of television condition and empathy on the relative chair distance measure. The results showed no significant mediation by empathy of the effects of television condition on the relative chair distance measure. There was a significant direct effect from television condition to empathy as shown earlier, but it was not in the hypothesized direction, and there were no significant direct effect from empathy to chair distance. The results of the analysis are displayed below in Figure 13.

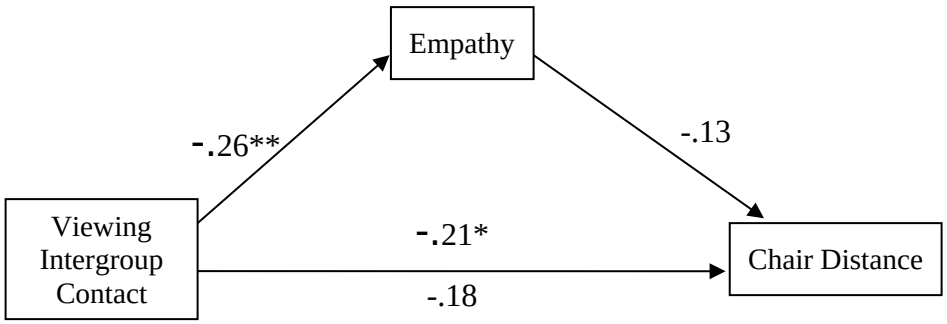


Figure 13. Standardized coefficients (beta) derived using regression testing for the mediating effect of empathy between viewing intergroup contact and relative chair distance for fall participants.

Because the moderation analyses showed condition effects on chair distance depending on whether participants had black friends, I also tested the mediation hypotheses for empathy

using a two-group model made up of participants who did and did not have black friends. The results of the analysis are displayed below in Figure 14.

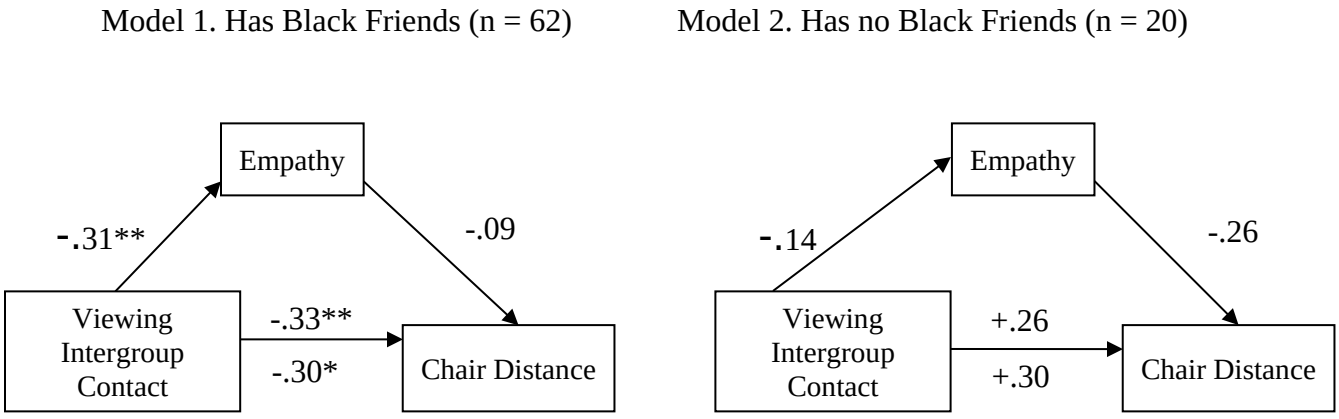


Figure 14. Standardized coefficients (beta) derived using regression testing for the mediating effect of empathy between viewing intergroup contact and relative chair distance for fall participants who did or did not have black friends.

The results show differences in the effects of the television manipulation to chair distance and differences in the relation of empathy to the television manipulation, but do not show moderated mediation. Empathy did not mediate the effect of condition on the relative chair distance measure for participants who did or did not have black friends. For those with black friends, there were significant direct effects from condition to empathy and from condition to the relative chair distance measure. For those who did not have black friends there were no significant direct effects from television condition to empathy or chair distance and no significant indirect effects from empathy to the relative chair distance measure.

Mediation by Anxiety. Using SPSS Amos, regressions were conducted to examine whether anxiety mediated the effects of television condition on the relative chair distance measure. The results illustrated in Figure 15 showed no significant mediation. There was a significant direct effect from television condition to anxiety and from television condition to

chair distance, but no significant direct effects from anxiety to chair distance, and thus no significant indirect effects of television condition on chair distance through anxiety.

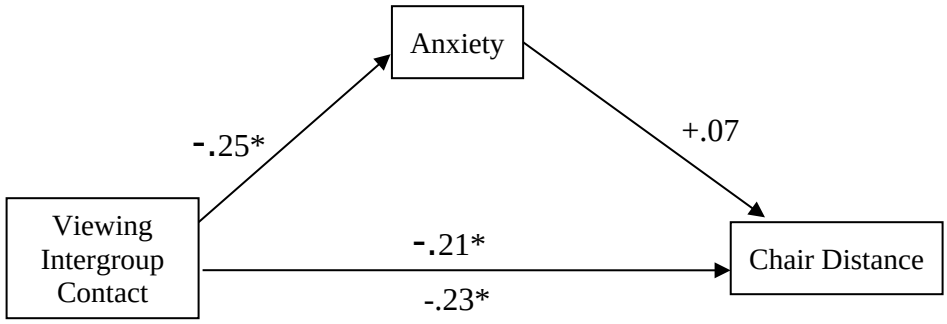
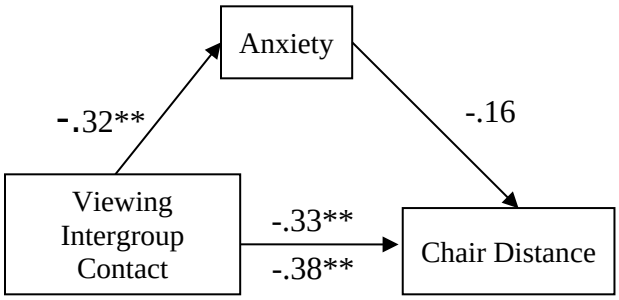


Figure 15. Standardized coefficients (beta) derived using regression testing for the mediating effect of anxiety between viewing intergroup contact and relative chair distance for fall participants.

Once again, because the moderation hypotheses showed condition effects on chair distance depending on whether participants had black friends, I tested the mediation hypotheses in Figure 15 using a two-group model made up of participants who did and did not have black friends. The results of the mediated model are displayed below in Figure 16.

Model 3. Has Black Friends (n = 62)



Model 4. Has no Black Friends (n = 20)

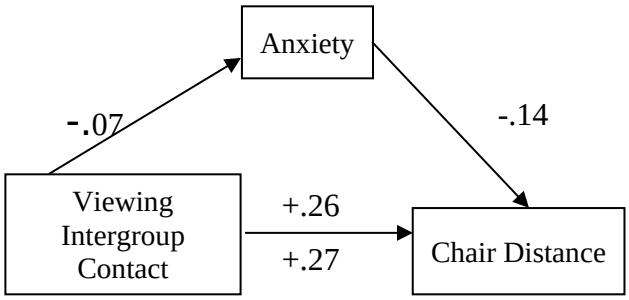


Figure 16. Standardized coefficients (beta) derived using regression testing for the mediating effect of anxiety between viewing intergroup contact and relative chair distance for fall participants who did or did not have black friends.

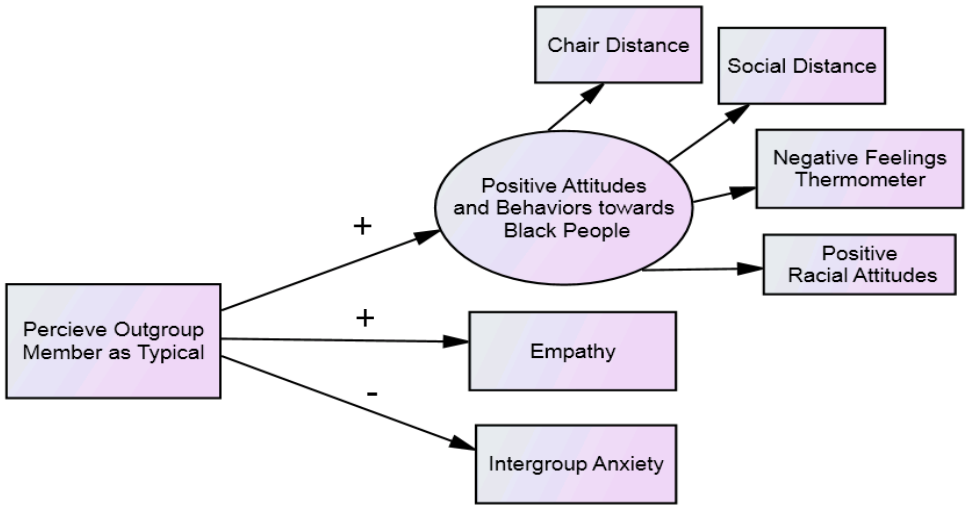
The results are suggestive of moderated mediation but the indirect path for the "has black friends" group is not significant. For those with black friends, there was a significant direct effect from television condition to anxiety and from television condition to the relative chair distance measure, but no significant direct effects from anxiety to chair distance. For those who did not have black friends there were no significant path coefficients.

Other Main Effects

Effects of black characters being perceived as typical members of the outgroup.

I also hypothesized that within the mixed race television condition only, the more participants saw the black characters as typical of black people in general, 1) the more empathy they would feel towards black people 2) the less anxiety that would have towards black people, and 3) the more positive attitudes and behaviors they would have towards black people. This effect cannot be tested as a mediation effect because scores on the perception variables could only be obtained from participants in the mixed race television condition. However, if there is no relation between perception of typicality and a dependent variable within the mixed race group, we know that this variable could not be a mediator of the experimental effect on that dependent variable. These hypotheses are diagrammed in Figure 17.

Figure 17. Hypothesized Effects of Perceiving Outgroup Members in a Pro-social Mixed Race Video as Typical of Their Group on Intergroup Anxiety, Empathy Towards the Outgroup, and Attitudes Towards the Outgroup



In order to assess whether participants' perceptions of how typical they believed the black characters where of black people as a group affected their attitudes and behaviors, anxiety, and empathy towards black people, I conducted a series of one-way mixed model analyses of variance that examined the effects of perceived group typicality (typical vs. not typical) on the dependent variables, with television treated as a random effect nested within group typicality. The dependent variables tested were relative chair distance, anxiety towards black people, and the self-report measures of attitudes (i.e. social distance, multidimensional racial attitudes, feelings towards African Americans, and empathy towards black people) The means for each group are shown in Table 6.

There were no significant effects of how typical black characters were seen on chair distance, social distance, anxiety, empathy, racial attitudes, and feelings towards African-Americans. Consequently we can conclude that perceptions of the characters typicality as a

member of the outgroup cannot mediate the effect of viewing mixed race television clips on the dependent variables.

Table 6. Mean Differences in Attitudes and Behaviors for Perception of Outgroup Characters as a Typical or Non-Typical Outgroup Member Conditions for All Participants

	Typical (*n*=103)	Non-Typical (*n*=91)	Mean Comparisons
Scale Items	*M (SD)*	*M (SD)*	
Relative Chair Distance	1.26 (10.22)	1.18 (13.23)	1.00
Intergroup Anxiety	-12.74 (34.16)	-8.89 (29.87)	0.46
Social Distance	2.24 (0.83)	2.36 (0.68)	0.72
Negative Feelings Thermometer	2.93 (1.02)	2.85 (1.06)	0.48
Positive Racial Attitudes	4.65 (1.08)	4.73 (0.84)	0.76
Empathy	3.48 (0.70)	3.58 (0.70)	0.35

Summary of Results

The main hypothesis of this study, that exposure to media portrayals of mixed race pro-social interactions would decrease viewers' anxiety about social interactions with the other race, would decrease their preferred social distance from the other race, and would increase their empathy toward the other race were only partially supported. Participants who were exposed to the mixed race television clips did show significantly less anxiety towards black people afterwards than did participants who were exposed to the television version with all white characters. This was true for participants tested in both semesters. However, the effects of television condition on preferred social distance as measured by the chair distance measure

varied between semesters. In the Fall semester, participants who were in the all white television condition put their chairs significantly farther away from their black conversation partners than participants who were in the mixed race television condition, but this was not true of participants in the Winter semester. There was also a significant interaction between the effects of condition and the semester in which the data were collected on the empathy measure. Contrary to my hypothesis, participants in the Fall semester who were in the all white television condition had greater empathy for black people than participants who were in the mixed race television condition during the Fall semester. This was not true of participants in the Winter semester.

With regards to moderating effects, having black friends significantly increased the effect of viewing the mixed race television clips on reducing social distance from black people as measured by the relative chair distance measure for the Fall semester. Participants in the mixed raced television condition who reported having black friends placed their chairs significantly closer to their black conversation partners than participants in the control condition who reported having black friends. However, for participants who did not have black friends, the distances were not significantly different between the television conditions. Parasocial identification with white characters in the television clips also moderated the effects of the television condition on the multidimensional racial attitudes scale, and marginally moderated the effects of television condition on the feeling thermometer. Viewing the mixed race television clips increased positive racial attitudes toward black people for those who identified highly with the white characters but significantly decreased positive racial attitudes toward black people for those low on parasocial identification with the white character. Furthermore, for participants who identified more with the white characters, viewing the mixed race television clip significantly decreased their negative feelings towards black people.

The mediation analysis did not identify any significant mediators of the effects of viewing mixed race television clips (versus all white) on the dependent variables though some of the results were suggestive of possible mediation. There were also no significant effects of how typical the black characters in the mixed race television clip were perceived to be on any of the dependent variables.

Chapter IV

Discussion

The main objective of this dissertation was to examine how television can be used to reduce intergroup tensions and conflicts, and to increase pro-social attitudes and behaviors among people. Guided by the Contact Hypothesis and Social Learning Theories, I tested how white participants' television exposure to positive intergroup contact between black and white characters is related to their racial attitudes and behaviors towards black people. This study also examined potential factors that may help to explain how intergroup contact can improve intergroup relations, and examined some key cognitive processes known to be responsible for these positive effects.

Overall, the main results provided significant support for the (parasocial) contact hypotheses and social learning theories of media effects. Television exposure to pro-social intergroup relations had a positive effect on the way at least some individuals related to members of the outgroup -- in particular those who already had some friends from the outgroup. The results were also positive for the population represented by the sample studied in the Fall, though the factors that distinguished that sample are not clear. These results provide a complex vision of the role of media in promoting pro-social attitudes and behaviors, and points to some potential limitations and advantages that contact parasocially may have that are not present with direct interpersonal contact.

This chapter is divided into major headings based on the hypotheses posed in the Introduction Chapter. More careful attention is given to findings that seem to fit together and to findings that may be extremely helpful for future research in this area.

Intergroup Contact and Positive Behaviors and Attitudes

Television exposure to positive intergroup contact decreased the social distance (as assessed by the relative chair distance measure) a sub-set of white participants felt towards their black conversation partners. The results showed that participants in the Fall semester who were in the all white television condition put their chairs significantly farther away from their black conversation partners than participants who were in the mixed race television condition during the Fall semester. These results mirror other studies that have found intergroup contact to reduce prejudice and social distance towards members of the outgroup (Henry & Hardin, 2006; Ortiz & Harwood, 2007; Pettigrew & Troop, 2006; Schiappa et al. 2005, 2006; Van Laar et al., 2005). Consistent with social learning theories, individuals who observed the televised models engaging in positive intergroup contact were probably primed with positive thoughts and attitudes. With priming, the accessibility of these thoughts and attitudes would be quite high and easy to use when they met and interacted with their black conversation partners. Exposure to positive emotions, attitudes, and behaviors in the television clips may have also produced a positive physiological arousal in the viewers that may have later transferred over into expected intergroup context.

There is also a small minority of research that has shown intergroup contact to increase prejudice (Amir, 1976; Marin & Salazar, 1985) however, this was not the case in the current study. In Pettigrew and Tropp's (2006) meta-analysis on intergroup contact and prejudice, they found that roughly five percent of the research studies on intergroup contact found a positive

relationship between contact and prejudice. Many of these studies point to or explain how negative factors within the contact situation, such as anxiety, threat, and authoritarianism, helped to produce these negative effects. These negative factors have been shown to inhibit the potentially positive effects of intergroup contact, and future contact studies need to be designed with the goal of incorporating as many positive features (e.g. friendships, empathy, and equal status) as possible while avoiding the former negative attributes. The current study was designed with this in mind.

Television exposure to positive intergroup contact did not significantly increase positive racial attitudes and behaviors as measured by the feeling thermometer, the multidimensional racial attitudes scale, or the social distance scale. Theoretically, these measures should have been related to positive intergroup contact as was the anxiety and the chair distance measure; however, these measures are all explicit self-report measures and therefore may have been weaker measures (or less sensitive) or may have tapped different cognitive dimensions of attitudes (Dovidio, et al., 2002). Some research has shown that implicit or indirect measures and explicit measures of attitudes are unrelated (Aberson & Haag, 2007; Greenwald et al., 1998) especially within the domain of prejudice and stereotypes (Dovidio, et al., 2002), whereas others have found relations between the two (McConnell & Leibold, 2001). Self-report measures, such as these, are also prone to social desirability effects, in that participants are more likely to answer these questions in a manner to be seen in a favorable light. Several studies looking at prejudice with ethnic minorities have shown that the correlation between self-report measures and implicit measures of prejudice to be low when individuals were highly motivated to control prejudice reactions (Payne, 2001, 2005). Banse and Gawronski (2003) found that in an environment in

which racial prejudice is seen as unfavorable, higher levels of social desirability reduced the amount of self-reported negativity towards ethnic minorities.

Taking into account the literature on the role of explicit and implicit measures, especially with regards to assessing prejudice, it was very important to have my primary dependent measure, the relative chair distance measure, not be a self-report measure. Measuring racial attitudes and behaviors with an observational measure avoided many of the issues associated with response biases and other problems associated with direct measures.

Furthermore, Pettigrew and Tropp (2006) discuss in their meta-analysis on intergroup contact studies that the quality of the prejudice measures were particularly important for the racial and ethnic studies. They found that the prejudice measures that were more rigorous and of higher quality tended to show larger effect sizes. Although most contact research uses explicit or self-report measures of prejudice, assessing prejudice indirectly or through behavior are better measures. Since attitudes do not always predict behaviors, behavioral measures are often considered to be the ultimate criterion for psychological research methods (Wicker, 1969).

Intergroup Contact and Anxiety

As predicted, television exposure to positive intergroup contact did decrease participants' anxiety towards black people. The results showed that participants who were exposed to the mixed race television clips had significantly less anxiety towards black people than participants who were exposed to the television version with all white characters. This finding is consistent with the contact hypothesis, social learning theories, and other empirical studies that have found intergroup contact to reduce anxiety (Aberson & Haag, 2007; Stephan & Stephan, 1985; Voci & Hewstone, 2003). Intergroup anxiety is often caused by having a limited amount of previous contact with outgroup members and by not knowing how to respond to or relate to the outgroup.

For some participants, exposure to the mixed race clip may have been an opportunity for them to increase their amount of familiarity or time spent with the outgroup, and this may have made them feel more relaxed and less anxious about the expected interaction.

Exposure to the mixed race clip may have also reduced the participants' feelings of uncertainty about the interaction or any expectations of negative outcomes that are often associated with intergroup interactions. From a social learning perspective, exposure to the models in the mixed race clip taught viewers how to interact with members of the outgroup by providing them with positive cognitive scripts to use in the interaction, and by the incorporation of these scripts into the viewer's schema. These positive scripts and schemas should decrease the amount of anxiety individuals feel about the intergroup contact situation, and allow them to think more clearly and have a higher level of cognitive performance while in the intergroup interaction. In turn, higher cognitive functioning will decrease the probability that individuals will rely on heuristics such as stereotypes when making evaluations about the contact experience.

Intergroup Contact and Empathy

Television exposure to positive intergroup contact did not increase the amount of empathy white participants held towards black people. Rather, the results showed that participants in the Fall semester who were in the all white television condition had greater empathy for black people than participants who were in the mixed race television condition. This finding is contrary to what the contact hypothesis proposes and to many of the studies that assess the relationship between intergroup contact and empathy. The contact hypothesis suggests that intergroup contact would reduce prejudice and bias by producing empathy towards the outgroup. Several studies have indeed found that empathizing with an outgroup member promotes more favorable attitudes and behaviors towards the outgroup (Aberson & Haag, 2007; Pettigrew &

Tropp, 2008). However, there have also been studies that show that intergroup contact does not produce empathy and in fact can increase negative feelings and attitudes. Vorauer and Sasaki (2009) found that empathy actually blocked intergroup contact from reducing prejudice. Their results suggested that having an empathic attitude towards outgroup members is good outside of, but not within an intergroup contact-situation. They claim that the activation of meta-stereotypes are responsible for these effects. Meta-stereotypes refers to stereotypes that come to mind when being evaluated by a member of the outgroup, and are often evoked in intergroup interactions. Meta-stereotypes are primed when an individual wonders and tries to predict what the outgroup members think of them. The activation of these meta-stereotypes block the generalization processes associated with the usually positive effects of empathy and makes it difficult for individuals to empathize with outgroup members. These generalization processes are responsible for the emotional and cognitive states needed to identify with and understand another's situation, feelings, and motives. As such, individuals who viewed the mixed race television clips may have been preoccupied thinking about what the outgroup member thinks about them (or the white character) and may have blocked other cognitive processes that were needed to link the intergroup situation with empathy towards the outgroup.

Another possible explanation for these unexpected findings is often referred to as the "Cosby effect". The Cosby effect refers to *The Cosby Show*, which was an American sitcom which featured an extremely unrealistic positive portrayal of an upper middle class Black family living in New York City. The Cosby Show began in 1984, was the top-rated show of the 1980s, and was the most watched sitcom in television history. While the Cosby show had very positive effects on many of its viewers, the show has also been criticized for not portraying a realistic picture of Black life. Some research has shown that this unrealistic portrayal had some

unexpected and negative effects on the way mainstream culture saw and related to Black people (Gates, 1992; Lewis & Jhally, 1992). The overly positive portrayals (e.g. the mother was a lawyer, the father a doctor; all household members were economically, socially, and emotionally secure; no encounters with poverty, major health issues, or institutional racism) led many of its viewers to believe that Black people were doing quite well for themselves and that there were no unique societal barriers that prevented Black people from achieving. So, if a Black person was not all that they could be, it was their own individual fault, afterall, if the Cosby's could make it, so could they.

The positive portrayals of intergroup interactions between black and white characters in the current study may have had a similar effect as the Cosby effect on some of the participants, leading them to believe that there is no reason to empathize with black people since (in the television clip) they seem to be in good cheer and getting along very well with individuals from the dominant culture. For example, one of the questions on the empathy measure asked participants to rate how they felt about statements such as: "I share the anger of blacks who face injustice because of their racial and ethnic backgrounds" (see Appendix F). Participants who were exposed to the positive portrayals of black and white characters may have felt that racial injustice was not a serious issue facing black people anymore, and may have been less likely to agree with this statement or felt more neutral towards the statement as if it did not apply.

Viewing these positive intergroup portrayals and taking on the Cosby effect perspective could be why participants who were exposed to the television clip with all white characters felt more empathy towards black people than the participants exposed to the mixed race television condition.

Since the parasocial contact hypothesis posits that identification with the outgroup character should increase positive attitudes towards the outgroup, additional analyses were conducted within the mixed race television condition to see if identifying with the black characters would be related to empathizing with black people. The results showed no significant correlation between identifying with the black characters and empathy towards black people.

Intergroup Contact and the Mediating Role of Empathy and Anxiety

The effect of television exposure to positive intergroup contact on participants' attitudes and behaviors towards black people was not explained by participants' empathy or anxiety towards black people. The results showed no significant mediation effects between the effects of television condition and empathy or anxiety on the relative chair distance measure. These results are inconsistent with Pettigrew's (2008) meta-analysis of 54 studies in which he found that both empathy and anxiety helped explain the relationship between intergroup contact and prejudice. He found that empathy and anxiety explained about half of the variance of intergroup contact on prejudice.

Although the results showed a significant relation between exposure to the television condition and empathy towards black people (albeit, in the wrong direction), empathy towards black people was not related to how close participants sat their chairs next to their black conversation partners. With regards to anxiety, the results showed a significant relation from viewing intergroup contact to reduced intergroup anxiety, and a significant relation from viewing intergroup contact to the how close participants sat their chairs next to their black conversation partners, but there was no significant effect from intergroup anxiety to chair distance. Consequently, intergroup anxiety cannot be said to mediate the effect of viewing intergroup contact on reducing preferred social distance.

The current study is very similar in design to many of the other experimental studies that look at intergroup contact and racial prejudice, with one exception. To my knowledge this is the only experimental study that examines exposure to intergroup contact with these mediating factors through an electronic or parasocial context. How this difference may impact the role of the various mediating factors that I studied is unclear, and more studies that examine these mediating relationships, from both a contact and parasocial contact context are needed to help discover any potential factors that may be of influence.

Intergroup Contact and the Moderating Role of Cross-Group Friendships and Parasocial Identification with the White Characters

Whether the participants had black friends did impact how close the participants placed their chairs next to their black conversation partners. The results showed a significant interaction between the effects of television condition and having black friends on the relative chair distance measure for the Fall semester. Participants who viewed the mixed raced television clips and reported having black friends placed their chairs significantly closer to their black conversation partners than participants who viewed the all white television clips and reported having black friends. However, for participants who did not have black friends, viewing the mixed race versus the all white television clip had no significant effect on their attitudes and behaviors.

The contact hypotheses suggests that the more outgroup friends you have the less likely you are to have prejudiced attitudes, whereas, the parasocial contact hypothesis suggests that the reduction of prejudice associated with viewing pro-social interactions will be greatest among those who do not have black friends. The results of this study are more in line with the contact hypothesis. In support of the contact hypothesis, Schiappa et al. (2005, 2006) found that cross-group friendships with gay people were a key predictor in reduced prejudice against

homosexuals. They also found that when examining parasocial contact in particular, that for straight participants who had gay friends, television shows depicting cross-group friendships between gays and straights did not add any additional positive benefits to their preexisting positive beliefs and attitudes towards gays. However, for those straight participants who reported the least amount of direct gay contact, viewing cross-group friendships between gay and straight people on television was related to less prejudiced beliefs about homosexuals. Taken together, cross-group friendships help develop positive cognitions and affective ties, and the findings from the current study and from the studies conducted by Schiappa et al. (2005, 2006) suggest that friendships do matter when examining how and to what degree parasocial contact will impact attitudes and behaviors.

Furthermore, parasocial identification with the white characters did impact participants' racial attitudes and feelings towards black people. The results showed a significant interaction between the effects of television condition and parasocial identification with white characters on positive multidimensional racial attitudes and a marginally significant effect on negative feelings towards black people. Viewing the mixed race television clip increased positive racial attitudes for those who identified highly with the white character and significantly decreased positive racial attitudes for those low on parasocial identification with the white character. These results are consistent with social learning theory which posits that the more a person identifies with a model and sees the model as a role model or similar to oneself, the more likely the person will learn and adopt the behaviors and attitudes of the model. These results are also in line with those of Schiappa, Gregg, and Hewes (2006) who found that the greater the level of parasocial identification straight viewers had with gay characters, the lower the level of sexual prejudice they held towards gay men.

Furthermore, for participants who identified more with the white characters, viewing the mixed race television clip significantly decreased their negative feelings towards black people. For participants who identified less with the white characters, the television condition had no significant effect, though the trend was for exposure to the mixed race television clip to increase positive attitudes.

Generalization Effects of Intergroup Contact

Perceiving the black characters to be typical of black people in general was not related to more positive attitudes and behaviors, empathy, or anxiety towards black people. Within the mixed race condition, the results showed no significant differences in attitudes and behaviors, empathy, or anxiety between participants who saw the black characters as representative of black people or between participants who saw the black characters as not representative of black people. The process of generalizing contact effects from the interpersonal to intergroup is an important issue for contact studies, and several scholars have offered models that focus on category salience or group representation to assess how the contact that occurs at the interpersonal level can be transferred over to the entire outgroup that the member belongs to. The current study did not find support for Hewstone and Brown's (1986, 2000) Intergroup Contact Theory which predicts contact effects to generalize best when members are seen as typical of the group they belong to, or for Brewer and Miller's (1984) Decategorization Model which predicts better generalization when group representation is low.

These non-significant findings are similar to the findings of Ortiz and Harwood (2007) who found mixed support for the role of group representation when assessing the relation between parasocial contact with gay people and black people on viewer's attitudes. They too hypothesized that the more representative the outgroup member was seen to be, the less anxiety

and social distance the ingroup would have towards the outgroup. They only found minimal support for their hypotheses; and only participants who perceived gay characters as more typical of gay men had lower levels of social distance towards gay people. They found no significant effects for the relationship between exposure to gay people as typical and viewer's anxiety and positive attitudes towards gay people, or between exposure to black people as typical and viewer's anxiety, social distance, and positive attitudes towards black people.

Limitations and Recommendations for Future Research

While the findings from the present study are very promising, there are still more questions that need to be answered before we can make any sort of recommendations for policy or practice. Clearly, more research in this area is needed, and there are many uncharted avenues that seem rich for exploration. To follow up on the results of Pettigrew's and Tropp's (2006) meta-analysis, one of the most important pieces of advice for future researchers is to pay careful attention to the measures chosen to assess prejudice, especially if the study is examining racial or ethnic prejudice. The findings from this study show that the implicit measures were better indicators of attitudes and behaviors. When dealing with intergroup relations and conflict, we are almost always dealing with sensitive topics that are not easily discussed in a direct or explicit manner. As such, future researchers should rely heavily on implicit or behavioral outcome measures.

Second, the positive effects of parasocial contact are only important if they last long enough to make meaningful change. To date, there have only been a handful of studies that assess intergroup contact with adults from a parasocial perspective. While more experimental studies are needed to establish the causal direction of effects, it is also important for longitudinal studies using both surveys and quasi-experiments. Longitudinal studies that examine the length

of time viewers need to be exposed to parasocial contact for positive effects to occur as well as understanding how long the effects last and or change over time are central questions that need to be answered in order to move the theory forward.

Third, intergroup contact assessed from a vicarious televised experience can help researchers uncover new factors and mechanisms that may impact the contact-prejudice relationship. Future research should examine different television genres (e.g. comedies, dramas, reality) to see if or how the unique components that make up different types of programming make a difference in promoting positive attitudes and behaviors. For example, do the portrayals of cross-group friendships in reality tv programming have a larger effect on viewers than cross-group friendship portrayals on situational comedies, or do portrayals of empathy in daytime soap operas have a stronger impact on viewers than empathizing with guests on talk shows? Exploring what types of television programming are best for displaying positive intergroup contact will be a central issue for policy and future applications.

Furthermore, while the issue of generalization in the contact literature seems most concerned with generalizing contact effects from the outgroup individual to the larger group which that individual represents, the ability to generalize these findings to other groups of people is also important. In the current study only white participants' attitudes and behaviors towards black people were assessed, however assessing black participants' attitudes and behaviors towards white people would have made this study much richer. Some scholars suggest that the effects of intergroup contact may depend on whether the interacting members are from the majority or minority culture. The literature on power and interpersonal relationships makes a distinction between how low status and high status groups deal with and maintain cultural biases and prejudices. Because high status groups already have positive associations that are broadly

represented in society, it may be easier for members of low status groups to reduce their implicit prejudices towards them; however, it may be harder for members of high status groups to eliminate the negative stereotypes and biases that are associated with low status groups. Also, members of high status groups generally have less at stake in the contact situation and tend to use more heuristics and stereotypes when interacting with members of a lower status (Fiske, 1993). This study was not designed to see if the magnitude of the effects are stronger when assessing black people's exposure to intergroup contact than for white people's exposure to intergroup contact. In general, assessing both the ingroup and outgroups' attitudes and behaviors in response to viewing intergroup contact is the best way to test the concepts and theories associated with the contact and parasocial contact hypothesis.

And last, finding the factors that distinguished the Fall semester college students from the Winter semester college students would be helpful for interpreting the semester effects (associated with the chair distance and empathy measures) and for designing similar studies in the future that use a college sample. To recall, the results showed that participants in the Fall semester who were in the all white television condition put their chairs significantly farther away from their black conversation partners than participants who were in the mixed race television condition; these results did not hold true for the Winter semester. In attempts to understand this semester difference, a number of possible explanations were explored.

Statistical analyses were conducted that tested for significant differences on the dependent variables between the research assistants in the two semesters, and the professors who taught the introductory undergraduate media effects classes in the Fall and Winter semesters were questioned to see if there was any important variability in teaching material that may have

accounted for the difference. Neither one of these two possibilities provided any additional insight.

Although not directly tested, it is also possible that students in the Winter semester displayed less social distance towards their black conversation partners because they had more time on the college campus (than the Fall semester students) to become familiar and comfortable with students of different racial backgrounds, although there were no statistically significant difference between semesters in the number of black friends participants reported. I also examined whether time within a semester influenced the major outcome variables. It did not.

Furthermore, the Literature, Science, and Arts (LS&A) program at the university requires all students to take a course that focuses on issues arising from racial or ethnic intolerance. These courses provide discussions on the meaning of race and ethnicity, racism and inequality, and discrimination based on race, ethnicity, religion, social class, or gender. It is more likely that a greater number of students in the Winter semester had already taken or was currently taken their required Race and Ethnicity course. As such, participants in the Winter semester may have been more knowledgeable of, and comfortable with racial differences which may have caused them to put their chairs closer to their black conversation partners than participants in the Fall semester.

Conclusions

The use of television as a strategic tool to help bring about change is not a new idea, however using television to relay messages that promote a pro-social society has been a challenge, and many academic fields have almost all together abandoned the issue (especially when it comes to researching the issue with an adult population). However, several theories and empirical findings suggest that this quest is still a fruitful one. The current study gives us hope

because it shows that exposure to positive messages regarding intergroup relations in situation comedies can in fact change viewer's attitudes and behaviors towards others in a more positive direction. With so much violence and conflict happening in today's world, developing strategies to increase peace amongst people should be on top of the world's agenda. Societies can only prosper and survive if there is cooperation between and among members of the ingroup and the outgroup. The quicker we accept that we are all inheritably connected and that our survival depends on one another, the sooner we can get along and love one another.

APPENDICES

APPENDIX A

CONSENT FORM

You are being invited to participate in a study to look at your responses to popular television shows. Many academic and industry professionals have expressed interest in understanding what makes certain television shows more enjoyable than others. The purpose of this study is to uncover the various components of television shows that lead people to like and continuously watch particular shows.

If you agree to be part of the research study, you will be asked to watch a short television show, have a brief discussion about the show with two other participants, and fill out some questionnaires.

Although you may not directly benefit from being in this study, others may benefit by the creation of television shows that provide enjoyment, laughter, and overall good entertainment which has been shown to be related to a higher level of emotional and psychological well-being. There are no known risks associated with this study because the topic is not sensitive.

You will receive one (1) credit hour for your participation. You can withdraw from the study at any time and still receive your credit.

We plan to publish the results of this study, but will not include any information that would identify you or your conversation partners. To keep your information safe, the questionnaire will be placed in a locked file cabinet and will be destroyed after the study ends. The researchers will enter the study data on a computer that is password-protected and uses special coding of the data to protect the information. To protect confidentiality, your real name will not be used in the written copy of the discussion.

There are some reasons why people other than the researchers may need to see information you provided as part of the study. This includes organizations responsible for making sure the research is done safely and properly, including the University of Michigan or government offices.

If you have questions about this research, including questions about scheduling or your credit for participating, you may contact Hope Cummings, M.A., University of Michigan, 5025 Institute for Social Research, 426 Thompson St. Ann Arbor, MI 48106, (734) 764-0420 or Rowell Huesmann, Ph.D, 5250 Institute for Social Research, 426 Thompson St. Ann Arbor, MI 48106, (734) 764-8385.

If you have questions about your rights as a research participant, please contact the University of Michigan Institutional Review Board Health Sciences and Behavioral Sciences, 540 E Liberty, Ste 202, Ann Arbor, MI 48104-2210, (734) 936-0933 irbhsbs@umich.edu.

By signing this document, you are agreeing to be in the study. Participating in this study is completely voluntary. Even if you decide to participate now, you may change your mind and stop at any time. You will be given a copy of this document for your records and one copy will be kept with the study records. Be sure that questions you have about the study have been answered and that you understand what you are being asked to do. You may contact the researcher if you think of a question later.

I agree to participate in the study.

_____ _____

Signature Date

APPENDIX B

DEBRIEFING FORM

Thank you for your participation in our research study. I would like to discuss with you in more detail the study you just participated in. As you may know, scientific methods sometimes require that subjects in research studies not be given complete information about the research until after the experiment is completed. I want to explain why it is necessary in some kinds of studies to not tell people all about the purpose of the study before they begin. Sometimes what people believe or say what they would do is not what they would really do when they find themselves in the middle of a situation. Discovering how people would naturally react is what we are really trying to find out in psychology experiments. We don't always tell people everything at the beginning of a study because we do not want to influence their responses in any unnatural way. If participants know specifically what researchers are trying to test or examine, their behaviors may be affected which could seriously jeopardize the research results. Some people might try to behave in ways that fit the researcher's expectations just to "help the researcher out" while some act in the exact opposite behavior just to show us that "we can't figure them out". And still other people may work to "look normal" or "look good" and thus engage in artificial behaviors. Therefore, deliberately withholding some information is often the only valid way to prevent these problems.

Now, I would like to explain exactly what we were trying to study in this investigation. Some evidence has shown that viewing pro-social programs can increase positive interactions (Mares, 1996). In this study, people watched pro-social television programs in which interactions were portrayed either between white and black people or just between white people. The hypothesis was that viewing interactions between white and black people would make a white student feel more comfortable about interacting with another black student. The setting up of the chairs was used to measure how comfortable you thought you would feel interacting with your expected conversation partners. There were no real conversation partners, and the researchers randomly selected the race of your fake conversation partners. The questionnaires given after this task were used to measure pro-social or antisocial thoughts and feelings towards other racial groups. We expect that exposure to television shows that displays pro-social attitudes and behaviors among members of different racial groups will cause viewers to display similar types of pro-social attitudes and behaviors towards members in racial groups other than their own, and make them feel more comfortable interacting with members of other racial groups.

I would like to emphasize that there are no correct responses in this study. We are looking at people's natural responses. If you feel uncomfortable about the fact that you were intentionally deceived, you may tell us to withdraw your data from the sample. Remember, we assure you that your responses will be confidential as described in the consent form. Your responses will be analyzed as part of a group of responses. Finally, I want to ask you not to reveal anything about the study to anyone else. If later participants were to know about the purposes and procedures of the study, it would affect how they behave and we would get invalid results. Your efforts and our

efforts would therefore be wasted. We would greatly appreciate if you did not tell others about the study. We really appreciate your help and we hope you've learned some things today. I won't know the results of the study for many months, but if you write your e-mail address on this list, I will be happy to send you information about what I found when I know. Do you have any questions or comments?

If you have questions about this research, including questions about your credit for participating, you may contact Hope Cummings, M.A., University of Michigan, 5025 Institute for Social Research, 426 Thompson St. Ann Arbor, MI 48106, (734) 764-0420 or Rowell Huesmann, Ph.D, 5250 Institute for Social Research, 426 Thompson St. Ann Arbor, MI 48106, (734) 764-8385.

Should you have any questions regarding your rights as a participant in research, please contact: Institutional Review Board Office, 540 E. Liberty, Suite 202, Ann Arbor, MI 48104-2202, 734-936-0933, irbhsbs@umich.edu

APPENDIX C

Transcript: Mister Rogers Defending PBS to the U.S. Senate

Sen. Pastore (S): Alright, Rogers, you've got the floor. ((laughter))

Mr. Fred Rogers (R): ((laughter)) Senator Pastore, this is a philosophical statement and would take about ten minutes to read, so I'll not do that. Uh. One of the first things that a child learns in a healthy family is trust, and I trust what you have said that you *will* read this. It's very important to me. I care deeply about children. My first children—

S: Would it make you happy if you read it?

R: I'd just like to talk about it [if it's alright.

S: Alright.

R: My first children's program was on WQAD fifteen years ago, and its budget was thirty dollars. Now, with the help of the Sears Roebuck Foundation and national educational television, as well as all of the affiliated stations, each station pays to show our program. It's a unique kind of funding in educational television. With this help, now our program has a budget of six thousand dollars. It may sound like quite a difference, but six thousand dollars pays for less than two minutes of cartoons, two minutes of animated (.) what I sometimes say "bombardment." I'm *very much* concerned, as I know you are, about what's being delivered to our children in this country, and I've worked in the field of child development for six *years* now, trying to understand the inner needs of children. We deal with such things as, as the inner drama of childhood. We don't have to bop somebody over the head to make him- to make drama on the screen. We deal with such things as getting a haircut or the feelings about brothers and sisters and the kind of anger that arises in *simple* family situations. And we speak to it constructively=

S: How long'a program is it?

R: It's a half hour every day. Most channels schedule it in the, in the noontime as well as in the evening. Uh, WETA here has scheduled it in the late afternoon.

S: Could we get a copy of this so that we could see it? Maybe not today, but I'd like to see the program.

R: I'd like very much for you [to see it.

S: I'd like to see the program itself or any one of them, you see.

R: We- we made a hundred programs for EEN, the Eastern Educational Network, and then when the money ran out people in Boston and Pittsburgh and Chicago all came to the (floor) and said, "We've *got to* have more of this neighborhood expression of care." And this is what- this is what I give: I give an expression of care every day to each child, to help him realize that he *is* unique. I end the program by saying, "You've made this day a *special* day, by just your being you. There's no person in the whole world like you, and *I* like you just the way you are." And I feel that if we in public television can only make it clear that feelings are mentionable *and* manageable, we will have done a great service (.) for mental health. Uh, I think that it's *much* more dramatic that two men could be working out their feelings of anger. *Much more* dramatic than showing something of gunfire. I'm *constantly* concerned about what our children are seeing. And for fifteen years I have tried in this country and Canada to present what I feel is a *meaningful* expression of care.

S: Do you narrate it?

R: I'm the host, yes. And I do all the puppets, and I write all the music, and I write all the scripts=

S: Well I'm s'posed to be a pretty tough guy, and this is the first time I've had goosebumps in the last two days.

R: Well I'm grateful, not only for your goosebumps but for your interest in, in our kind of communication. Could I tell you the words of one of the songs which I feel is *very* important?

S: Yes.

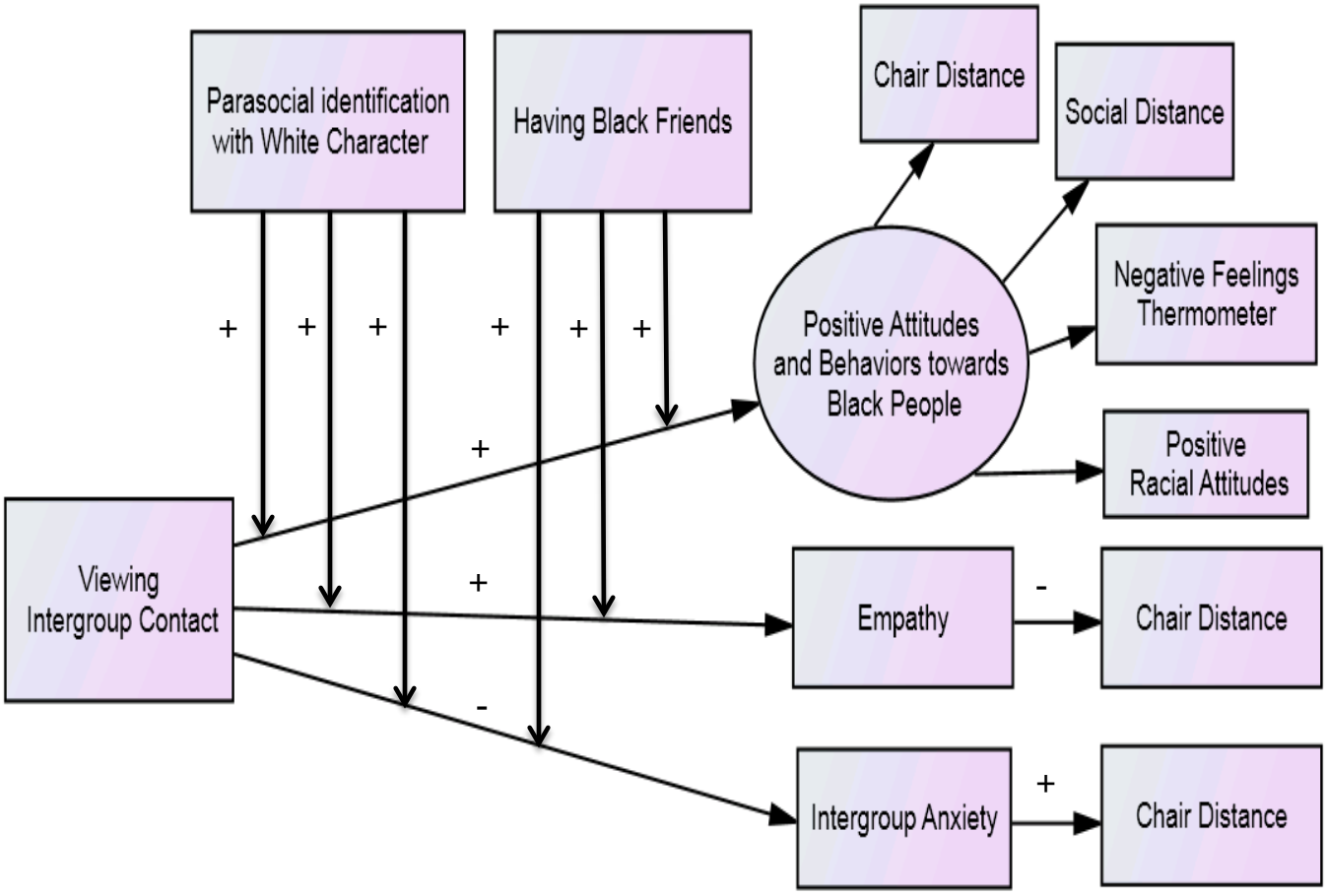
R: This has to do with that good feeling of control, which I feel that- that children need to know is there. And it starts out, “What do you do with the *mad* that you feel?” And that first line came straight from a child. I work with children. Do- doing puppets and, and very personal communication with small groups. “What do you do with the *mad* that you feel when you feel so mad you could bite? When the whole wide world seems oh so wrong, and nothing you do seems very right. What do you do? Do you punch a bag? Do you pound some clay or some dough? Do you round up friends for a game of tag or see how fast you go? It’s great to be able to *stop,* when you’ve planned a thing that’s wrong, and be able to do something else instead and think this song. I can *stop* when I want to. Can *stop* when I wish. Can stop, stop, stop anytime. And what a good feeling to feel like this and know that the feeling is *really* mine. Know that there’s something *deep inside* that helps us become what we can. For a girl can be someday a lady, and a boy can be someday a man.”

S: I think it’s wonderful. I think it’s *wonderful*. Looks like he just earned the twenty million dollars.

((laughter and applause from the crowd))

APPENDIX D

CONCEPTUAL MODEL



APPENDIX E

STIMULUS FILMS AND THEIR LENGTHS

PRO-SOCIAL MIXED RACE

King of Queens	12 min, 58 sec
Scrubs	16 min, 18 sec

PRO-SOCIAL ALL WHITE

Frasier	16 min, 37 sec
Scrubs	13 min, 06 sec

APPENDIX F

MEASURES

Movie Satisfaction Scale

On a scale of 1 to 10 (1 = strongly disagree and 10 = strongly agree). Please rate the movie clip you watched on each dimension below.

1. The movie was absorbing.
2. The movie was arousing.
3. The movie was boring.
4. The movie was enjoyable.
5. The movie was entertaining.
6. The movie was exciting.
7. The movie was frustrating.
8. The movie was fun.
9. The movie was involving.
10. The movie was stimulating.

Interaction Anxiousness Scale (Leary & Kowalski 1993)

On a scale of 1 to 5 (1 =not at all characteristic of me and 5 = extremely characteristic of me) please indicate how characteristic each statement describes you.

1. In general, I am a shy person.
2. I often feel nervous even in casual get-togethers.
3. I often feel nervous when talking to an attractive member of the opposite sex.
4. I am usually at ease when speaking to a member of the other sex.
5. I usually feel comfortable when I'm in a group of people I don't know.
6. I usually feel relaxed around other people, even people who are quite different from me.
7. I get nervous when I must talk to a teacher or boss.
8. Parties often make me feel anxious and uncomfortable.
9. I am probably less shy in social interactions than most people.
10. I often feel tense when talking to people of my own sex if I don't know them very well.
11. I would be nervous if I was being interviewed for a job.
12. I wish I had more confidence in social situations.
13. I seldom feel anxious in social situations.
14. I often feel nervous when calling someone I don't know very well on the telephone.
15. I get nervous when I speak to someone in a position of authority.

Prior Exposure to Show

How often do you or did you (if not currently watching) watch the King of Queens?

1. Never
2. Once a Month
3. 2-3 Times a Month
4. Once a Week
5. 2-3 Times a Week
6. Daily

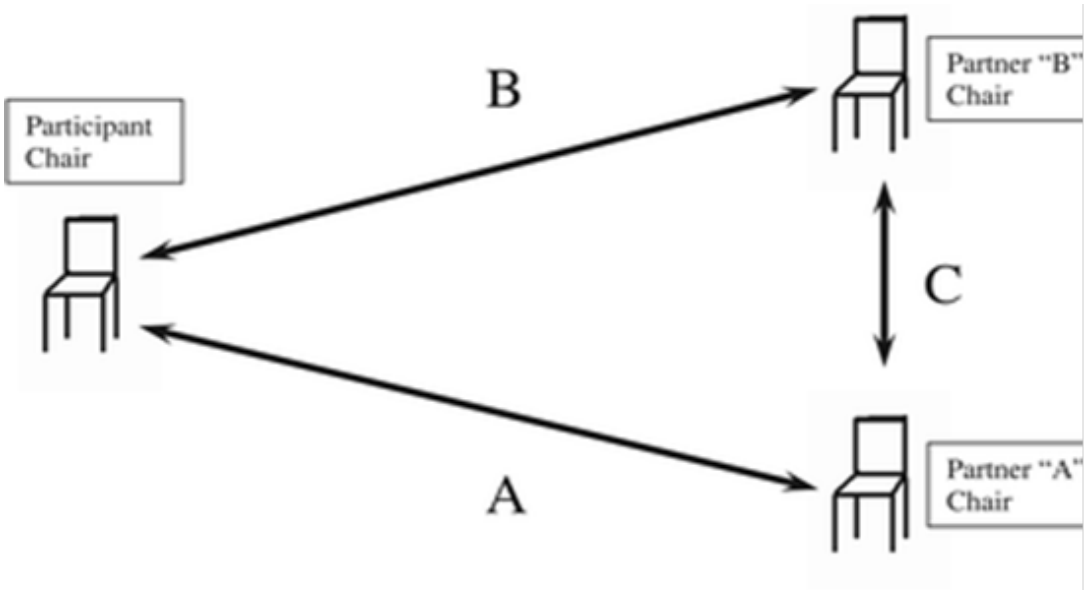
The Pro-social Tendencies Measure (Carlo & Randall, 2002)

On a scale of 1 to 5 (1 = does not describe me at all and 5 =describes me greatly) please indicate how much each statement describes you.

1. I can help others best when people are watching me.
2. It is most fulfilling to me when I can comfort someone who is very distressed.
3. When other people are around, it is easier for me to help needy others.
4. I think that one of the best things about helping others is that it makes me look good.
5. I get the most out of helping others when it is done in front of others.
6. I tend to help people who are in a real crisis or need.
7. When people ask me to help them, I don't hesitate.
8. I prefer to donate money anonymously.
9. I tend to help people who hurt themselves badly.
10. I believe that donating goods or money works best when it is tax-deductible.
11. I tend to help needy others most when they do not know who helped them.
12. I tend to help others particularly when they are emotionally distressed.
13. Helping others when I am in the spotlight is when I work best.
14. It is easy for me to help others when they are in a dire situation.
15. Most of the time, I help others when they do not know who helped them.
16. I believe I should receive more recognition for the time and energy I spend on charity work.
17. I respond to helping others best when the situation is highly emotional.
18. I never hesitate to help others when they ask for it.
19. I think that helping others without them knowing is the best type of situation.
20. One of the best things about doing charity work is that it looks good on my resume.
21. Emotional situations make me want to help needy others.
22. I often make anonymous donations because they make me feel good
23. I feel that if I help someone, they should help me in the future.

Chair Distance

The distance between the chair in which the participant sat and where the participant placed the other two chairs was measured after the participant finished the study. To calculate chair distance, the distance the participant put between the two fake conversation partners chairs (C in the figure) was subtracted from the average distance between the participants chair and each of the other two chairs (A + B / 2 in the figure).



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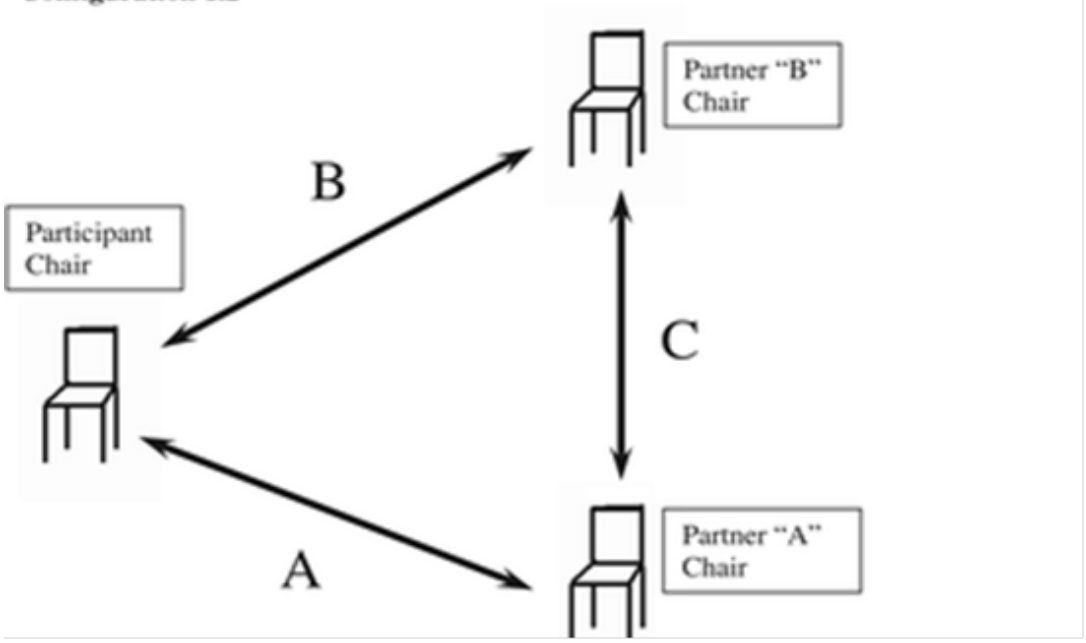


ID NUMBER:_____

PROTOCOL FOR TAKING ACCURATE CHAIR MEASUREMENTS

The success of this experiment relies heavily on these measurements. We are not expecting a large amount of variation between the groups so it is vital that your measurements are accurate to the smallest degree.

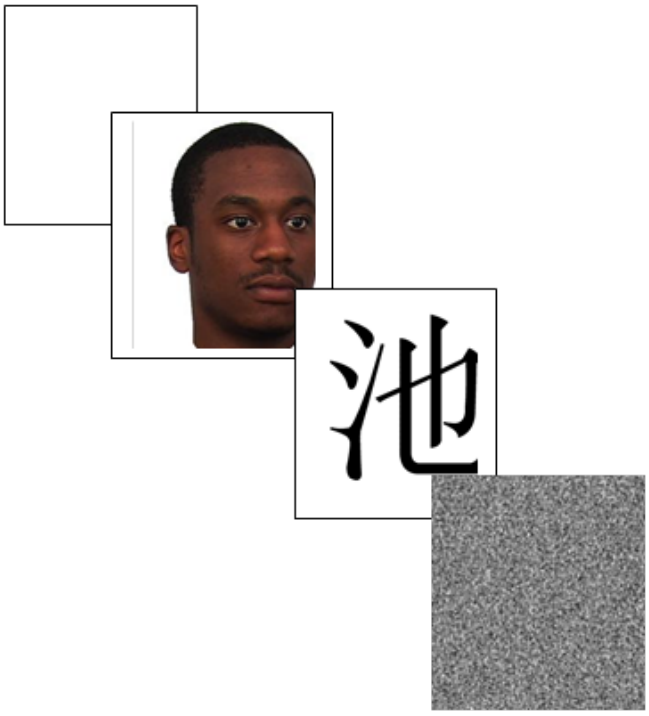
Look at the chairs (only 2 chairs at a time) and determine the area that is the smallest distance from one chair to the other. If it is not obvious you may have to take measurements. Use the side of the ruler that has small $1/16^{th}$ inch markings (not the larger $1/10^{th}$ inch markings) and measure this distance. Place the tip of the ruler on the front or side of the chair NOT on top of the chair. Mark the distance on the "distance sheet" on the appropriate line. Note: the participants chair is already marked on the distance sheet. Repeat this process with measurements between all the chairs. When you are done, RECHECK all of your measurements, and write them on the second chair diagram. Rechecking is vital for reliability purposes. PLEASE DO NOT JUST COPY YOUR PREVIOUS MEASUREMENTS.

Format for measurements: To make things easy and to avoid as much error as possible, mark your measurements in 16^{th} inch format. For example: $3'3\ ^{4/16th}$.

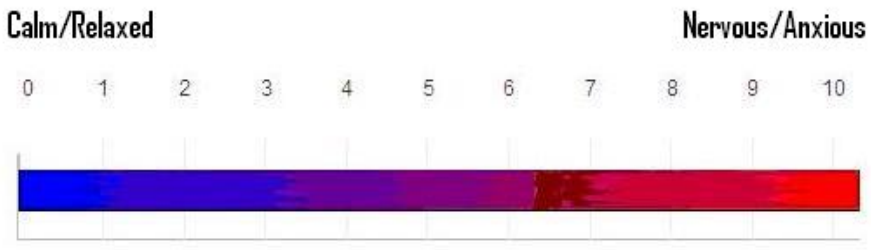
Note: All research assistants were trained by me (Hope Cummings), and a senior research assistant on how to take reliable chair measurements.

Intergroup Anxiety Towards Black People

Standard priming procedures were used to assess participant's intergroup anxiety towards black people. In short, participants were primed with a picture of a black or white person, followed by the presentation of a Chinese pictograph, and then a mask. Participants then quickly rated how the Chinese pictograph made them feel. Here is an example:



Using the mouse, record how the Chinese symbol makes you feel on the color coded feeling thermometer



Clicking on or near the RED means the symbol makes you feel more ANXIOUS or NERVOUS. Clicking on or near the BLUE means the symbol makes you feel more CALM or RELAXED.

The Scale of Ethnocultural Empathy (Wang et al., 2003)

On a scale of 1 to 6 (1 =strongly disagree and 6 = strongly agree) please indicate how you feel about the following statements.

1. When black people struggle with racial or ethnic oppression, I share their frustration.
2. I feel supportive of blacks, if I think they are being taken advantage of.
3. I share the anger of blacks who face injustice because of their racial and ethnic backgrounds.
4. I share the anger of blacks who are victims of hate crimes (e.g., intentional violence because of race or ethnicity).
5. I get disturbed when black people experience misfortunes due to their racial or ethnic backgrounds.
6. When I see black people succeed in the public arena, I share their pride.
7. I express my concern about discrimination to black people.
8. It is easy for me to understand what it would feel like to be a black person.
9. It is difficult for me to relate to stories in which black people talk about racial or ethnic discrimination they experience in their day to day lives.
10. It is difficult for me to put myself in the shoes of someone who is black.
11. I know what it feels like to be the only person of a certain race or ethnicity in a group of people.
12. I can relate to the frustration that black people feel about having fewer opportunities due to their racial or ethnic backgrounds.
13. I feel uncomfortable when I am around a significant number of black people.
14. I don't know a lot of information about important social and political events for black people.

Social Distance Measure (Bogardus, 1967)

On a scale of 1 to 5 (1 =very much in favor and 5 = very much oppose) please indicate how supportive you are with the following statements.

1. Having Blacks as your next door neighbors.
2. About having a close relative marry a Black person.
3. Introducing Black visitors to your friends and neighbors.
4. Dancing with a Black person in a public place.
5. Living in a neighborhood where half of your neighbors were Black.

Previous Black Contact

Please select the option that describes you the best.

1. I do not know of any black people personally; only distant or superficial contact
2. I am acquainted with a few black people, but not as friends
3. I have a few [3 or less] black friends
4. I have more than 3 black friends

The Multidimensional Racial Attitudes Scale (Czopp & Montheith, 2006)

On a scale of 1 to 7 (1 =strongly disagree and 7 = strongly agree) please indicate your level of agreement with the following items.

1. There are so many black criminals because black people are naturally more aggressive.
2. Housing laws should be passed that encourage greater racial integration of neighborhoods.
3. I think it would be fun to have a black roommate.
4. As a whole, white people aren't smarter than black people.
5. Black people could be as successful as white people if they only worked harder.

Affect Towards African-Americans

On a scale of 1 to 7 (1 =extremely warm and 7 = extremely cold) rate how warm or cold you feel towards the following groups. If you don't feel particularly warm or cold toward the group, you would rate the group in the middle. Please select the point that best corresponds to your feeling toward each group.

1. Christian
2. Jewish
3. Islam
4. Agnostic
5. Atheist
6. **African-American**
7. Latin American or Hispanic
8. Asian-American
9. Euro-American
10. Native-American
11. Homosexual
12. Bisexual
13. Heterosexual

Group Typicality

The following questions were asked for each major character. On a scale of 1 to 5 (1 =not at all and 5 = a great extent)…..

1. How similar is the character to other women you know?
2. How similar is the character to other men you know?
3. How similar is the character to other white people you know?
4. How similar is the character to other black people?

Parasocial Identification with the White Characters

The following questions made up the *parasocial identification with the white characters* measure, and were asked for each major character.

A. Measurement Scale of Uncertainty Reduction (Kellerman and Reynolds, 1990)

On a scale of 1 to 4 (1 = very well and 4 = not very well) …….

1. How much do you think you can empathize the way each person feels about him/ herself as a person?
2. How well do you think you know each character?
3. How confident are you of your general ability to predict how each person will behave?
4. How well do you think you understand each character?
5. How well do you think you can predict each person's feelings and emotions?

B. Perceived Homophily Scale (McCroskey, Richmond, & Daly, 1975)

On a scale of 1 to 7……

6. Please rate how much each character is similar to you.
7. Please rate how much each character thinks like you.
8. Please rate how much each character shares your values.
9. Please rate how much each character treats people like you do.
10. Please rate how much each character has a social status similar to yours.

C. **Social Attraction Scale (McCroskey & McCain, 1974).**

On a scale of 1 to 7 (1 = strongly disagree and 7 = strongly agree)……

11. It would be difficult to meet and talk with the character.
12. The character just wouldn't fit into my circle of friends.
13. We could never establish a personal friendship with each other.
14. I would like to have a friendly chat with the character.
15. I think the character could be a friend of mine.

D. Parasocial Interaction Scale (Schiappa, Allen & Gregg, 2006)

On a yes/no scale……

16. I would like to get to know a person like…
17. The character is like a real person to me…

APPENDIX G

EXIT SURVEY

1. Do you remember the name of the show you watched? No Yes
   If yes, write the name of the show _____
2. Do you think you could pick the main characters out of a lineup? Yes No Some of them
3. Were your partners male or female? Male Female I don't know
4. Were your partners Black, White, Asian or other? White Black Asian Other

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