

The Dissertation Committee for Kimberly Dawn Wilson certifies that this is the approved version of the following dissertation:

Interpersonal Contact and Intergroup Relations: The Impact of Interracial Friendship and Group Identity on Intergroup Relationships among Middle School Students

Committee:

Cindy Carlson, Supervisor

Toni Falbo

Timothy Keith

Richard Schott

Margaret Semrud-Clikeman

**Interpersonal Contact and Intergroup Relations: The Impact of Interracial
Friendship and Group Identity on Intergroup Relationships among Middle
School Students**

by

Kimberly Dawn Wilson, B.A.

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Kimberly Dawn Wilson, Ph.D.
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Supervisor: Cindy I Carlson

Using a survey of middle schools students from four ethnically diverse schools, this study examined whether intergroup attitudes and behavior were influenced by interpersonal contact. Based on the contact theory, it was predicted that casual contact, as defined by racial proportions within the school, and true interpersonal contact, as defined by close friendships, would positively influence perceptions of and actions toward other ethnic groups. It was suggested that this relationship would indicate that contact had generalized the meaning of an interpersonal interaction to one of meaning for the larger group. It was further hypothesized, based on social identity theory and an intergroup process model proposed by Brewer and Miller (1984), that this relationship would be influenced by identity group salience, or the strength of a student's identity coupled with the degree to which the student perceived negative group attention in the environment. If identity group salience was strong,

then this relationship would be weak. Results of this study indicate that having close cross race friendships is related to positive intergroup attitudes and behavior. In addition, group identity salience did not moderate the relationship between interpersonal contact and intergroup relations, but influenced positive intergroup behavior more than did cross race close friendships. These findings are discussed in terms of ways to structure cross-race interactions in schools to positively influence intergroup relations, and how future research might focus on the intergroup experience of multiple races.

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CHAPTER 1

INTRODUCTION

Tolerance and conflict among cultures have been important topics of discourse for as long as history has been recorded. The manner in which groups of different origin co-exist takes on special significance in light of the globalization of the world and the need to depend on others for sustenance as well as peaceful existence. Although understanding intergroup relations has worldwide implications, the increased diversity within the United States, coupled with the history of racial tension, makes this an especially important endeavor in the success of this nation.

Social scientists generally agree that intergroup relations consist of the behaviors and attitudes elicited when distinct groups interact (Brewer & Kramer, 1985; Forbes, 1997). Attitudes consist of the positive or negative evaluation of concepts or objects (Duckitt, 1993; Smith, 1994; Wicker, 1969). Intergroup behavior is considered actions in the context of multiple groups (Duckitt, 1993; Sherif & Sherif, 1969). Past literature suggests the importance of including both thought and actions when exploring outcomes and positive interventions of intergroup relations (Schofield, 1995a).

Both attitudes and behavior are aspects of intergroup relations; however, attitudes and behavior function differently and have been found to be inconsistently related (Duckitt, 1993; Wicker, 1969). Ajzen and Fishbein (1997) suggest including measures of specific as well as global attitudes and assessing general patterns of

behavior. It is their belief that patterns of behavior, rather than single acts, provide a more comprehensive measure of intergroup relations and the relationship between attitude and behavior. Researchers, such as Jean Phinney, recognize the need for a comprehensive measure of intergroup relations. In her development of a scale designed to measure various aspects of intergroup relations and identity among middle school students, Phinney (1992) created a scale called Other-group Orientation. The Other-group Orientation scale incorporates both specific attitudes and a general pattern of behavior towards members of other groups when measuring intergroup relations, as was recommended by Ajzen and Fishbein. Although differently conceptualized, the idea that both attitude and behavior are integral to intergroup relations is consistent among social scientists.

Although a general consensus has been reached that attitude and behavior should be included in the measurement of intergroup relations, one major area without consensus in the social psychology literature covering intergroup relations involves the connection between *interpersonal* interactions and intergroup relations (Allport, 1962; Brown, 2000; Sedikides, Schopler & Insko, 1998). Some authors contend that social group awareness is ever present, and all interactions are based on one's social group in relation to others (Sherif, Harvey, White and Hood, 1961). Others argue that interactions among people are strictly one-to-one, or interpersonal (Fiske & Taylor, 1984; Turner, 1999). More likely is the contention that these two

types of interactions exist along a continuum, and the nature of the interaction is not easily distinguished (Brown, 2000; Turner, 1999).

One plausible response to the discussion that has plagued social psychology regarding the connection between interpersonal and intergroup interactions is contact theory. According to Allport, if two different groups possessed equal social status, were in ordinary pursuits, engaged in genuine interactions, and interaction between the groups was supported by authorities, exposure to members of the other group facilitates the reduction of conflict and creates positive intergroup experiences (Allport, 1954). Allport's version of contact theory suggested that when the above mentioned environmental conditions are met, positive intergroup experiences would occur because the opportunity of being around individuals from different groups will promote a shift in how the entire group is perceived (Allport, 1962). Although the interaction between two people is interpersonal, the meaning can be one of an intergroup nature.

Contact theory was employed in a substantial portion of the past research conducted on intergroup relations in the United States. In particular, contact theory was used in the context of intergroup relations in desegregated public schools. The mingling of racial groups, with little to no previous significant contact, appeared to provide a rich context from which to explore how groups get along. In addition, it was hoped that increasing interracial contact, based on principles of contact theory, would prove useful in creating programming to improve interracial relations.

Unfortunately, results of studies using contact theory to predict the intergroup outcome of interpersonal interactions have been equivocal (Jackson, 1993; Schofield, 1995a; Smith, 1994).

One possible explanation for the equivocal findings of contact theory is a failure to clearly define interpersonal contact when exploring the theory. Research has found that true contact such as friendships, which are closer and less superficial, is more predictive of intergroup relations than is casual contact individuals engage in by mere proximity (Dutton, Singer, and Devlin, (1998); Ellison & Powers, 1994). This has particularly been the case for African Americans (Ellison & Powers, 1994; Hammer & Gudykunst, 1987). Although close contact has been found to be more predictive of intergroup relations than is casual contact, patterns of positive or negative intergroup relations based on more superficial measures of contact, such as racial composition of schools, have emerged. Studies of the racial composition of schools suggest optimal proportions at which casual contact promotes positive intergroup attitudes, particularly among Caucasian populations (Davis, Strube, & Li-Chen, 1995; Longshore, 1982a). In response to the variable impact casual and close contact have on intergroup relations, Forbes (1984) suggests that an important task in using contact theory to predict intergroup relations from interpersonal interaction would be to distinguish whether the contact was of a casual or true acquaintance nature before determining its relationship to intergroup relations.

While contact theory suggests that interpersonal interaction generalizes to intergroup attitudes and behaviors, it fails to address those underlying processes that allow this shift to occur. Understanding the underlying processes of interpersonal contact could also provide a second explanation for the equivocal findings in the contact theory literature.

Social identity theory has been offered as an explanation of the underlying processes that allow interactions to travel along the interpersonal-intergroup continuum. It suggests that cognitive and motivational processes within the individual react to social cues. As humans, categorizing individuals comes naturally. As group membership becomes more salient in the environment, the tendency to apply the categories, or intergroup meaning, to interactions will increase. While the interpersonal-intergroup continuum and its influence by underlying cognitive processes have been suggested, few studies have actually explored the validity of applying social identity theory to explain how interpersonal interactions give rise to intergroup meaning.

Brewer and Miller (1984) provide a useful model for exploring the integration of contact and social identity to explore the processes that give interpersonal contact intergroup meaning. They suggest that a reduction in emphasis on social differences will increase positive intergroup relations when individuals come in contact. This model is consistent with the research of French, Seidman and Allen (2000) and Turner (1982) which suggests that the strength of the identification with one's group

and the positive or negative nature of the group perception in the environment, both mediate the relationship between interpersonal contact and intergroup relations. The person with whom one is interacting can become representative of the group to which the individual belongs.

It is the author's contention that Brewer and Miller's model which combines the general principles of contact theory and social identity theory can provide a better portrayal of how intergroup relationships are influenced by both the individual and social environment. Based on contact theory, previous authors have suggested that a relationship exists between interpersonal contact and intergroup relations; however, few have actually examined how this relationship may be facilitated by social identity. This study will address two possible explanations for equivocal findings in contact theory literature regarding the intergroup/interpersonal relationship: the differentiation between casual and true contact which defines the interpersonal experience, and the underlying processes which allow the application of intergroup meaning. This study will examine the intergroup/interpersonal relationship among middle school students.

Early adolescence within schools provides a great opportunity to explore how interpersonal contact affects intergroup relationships. Early adolescence is an important period of identity formation and peer group influence (Carter, Detine-Carter & Benson, 1977; Steinberg & Silverberg, 1986). Schools allow a social structure in which environmental factors can be explored. Individual perceptions of

social identity can be obtained, and associations can be made between the individual, the environment, and intergroup relationships.

Utilizing middle school students' self reports, this study is based on Brewer and Miller's proposed model. The study first explored contact theory using the concepts of casual and true acquaintance contact. This was done by examining the relationship between the opportunity for casual interracial contact, as measured by racial proportions in schools, and the intergroup attitude and behavior among middle school students. The study then explored the relationship between more intense contact, as measured by friendships, and the intergroup attitude and behavior among middle school students. Finally, in an effort to test the merged ideas of contact theory and social identity theory, this study tested the hypothesis that the salience of group identity moderates the relationship between interpersonal contact and intergroup relations. The salience of group identity was determined by the importance of identity to the individual and the individual's perception of group acceptance in the environment.

CHAPTER 2

LITERATURE REVIEW

The first section of this literature review explores the history of intergroup relations. The next section addresses the past study of intergroup relations in schools. Measures and definitions of intergroup relations are discussed. The next section introduces interpersonal contact and contact theory. The section following explores the major conflict in the study of intergroup relations, which is how to reconcile the relationship between interpersonal contact and intergroup effects. Social identity theory is offered as a means of reconciling the relationship between interpersonal contact and intergroup relationships. It is suggested that integrating social identity theory with contact theory may better explain how the level of interpersonal contact and individual processes, such as social group identity, together influence intergroup relations among students. In the final section, a summary statement of the problem is given, along with several questions, around which the study was designed.

History of the Study of Intergroup Relations

Social scientists have long recognized the importance of understanding how people get along. The initial explorations of intergroup relations were conducted under the disciplines of sociology and political science (Brewer & Kramer, 1985). At the turn of the 20th century, the writings of economists, such as Karl Marx and Max Weber, focused on the effects of industrialism on politics, society, and social thought

among classes (Haidenko, 1989; Morrison, 1995). These writings emphasized economic and political rather than cultural differences among groups as the source of intergroup conflict and cooperation (Forbes, 1997). Social psychologists, who extended theories of intergroup relations to include cultural and racial foci, began to conceptualize groups as having a collective psyche (Rapoport, 1965). Behavior in riots and group unrest were explained in accordance with the belief in a group psyche. Based largely on the idea that groups maintain universal drives, and the premise that entire communities were affected by intergroup unrest, interactions among different social and ethnic groups were largely interpreted from the perspective of group conflict and cooperation (Rothbart & John, 1993; Sherif, et al., 1961).

Social psychologists, whose field was primarily concerned with psychological processes among groups, found the focus on ethnic intergroup relations a fascinating, yet difficult, shift. The study of intergroup relations was made complex because significant emotions and ownership were attached to ethnic group membership and these attachments often defied rationality. For example, Rothbart and John (1993) point out that many stereotypes are not realistic because their premise is generally based on lack of, or limited exposure to other groups. As Schofield (1989) points out, although generally lacking a factual base, some stereotypes may contain what appears to observable truth based on historical conditions. For example, the belief that African Americans were less intelligent may have derived from exclusion from experiences and materials which were used to gauge level of intelligence. In his review of conflict

among groups based on ethnic differences, Forbes (1997) expresses the complexity of researching and addressing a cultural versus political or economic focus:

In short, there is something strange, even mysterious about ethnic conflict, unlike class conflict or other conflicts of economic interests, which are more open to inspection, more compatible with reasonableness, and much easier to understand (p. 14).

Intergroup Relations Research in the United States

Following World War II, social scientists in the United States began to focus on domestic issues of race. This focus began subsequent to the inclusion of African Americans in American military troops, the observations of cross-race experiences abroad, and the intergroup interactions which occurred when troops returned to the United States. (Dovidio, Gaertner & Kawakami 2003; Tyack, 1995). By the mid 1940's, studies of intergroup relations focused largely on adults in settings of housing, military, and industry (Brophy, 1946; Singer, 1948).

By the early 1960's, the tide in domestic issues of race in American shifted toward addressing the social injustices legalized and practiced throughout the nation, and efforts were made to correct these social ills (Tyack, 1995). One of the main areas that was considered to possess potential for fostering positive change, and where discriminatory practices were blatant, was the public school system. It was acknowledged by federal regulators that the existing segregated education system was inherently discriminatory. In addition, professionals in the social sciences contended that segregation was detrimental to the psychological and educational developmental

of African American children. Subsequently, the United States Supreme Court ruled in the case of Brown versus the Board of Education of Topeka, Kansas, that separate schools were inherently unequal and ordered that schools desegregate (Fisher & Sorenson, 1996). Soon after this mandate to integrate American public schools, studies of intergroup relationships began to focus on schools as an important arena of socialization, education, and change (Braddock, Dawkin & Wilson, 1995).

Since the mid 1980's, research of intergroup relationships in schools has progressed from studying what was previously conceptualized as "school desegregation" to globally understanding the impact of racial contact on students' relationships. The focus on cross-race interaction is particularly significant given the increase in general immigration and in particular the rate of growth of the Hispanic population as indicated in the 2000 Census. For example, ten million immigrants were calculated to reside in metropolitan areas in the United States in 1990 census, twenty-nine million were documented in the 2000 Census.

Defining and Measuring Intergroup Relations

Taylor and Moghaddam (1987) offer this definition of intergroup relations: "... any aspect of human interaction that involves individuals perceiving themselves as members of a social category, or being perceived by others as belonging to a social category." While intergroup relations is the broad terms used to describe the process that occurs when separate groups interact, other terms such as "ethnic conflict" and

“intergroup behavior” are often used interchangeably with intergroup relations (Forbes, 1997; Mummendey & Wenzel, 1999; Taylor & Moghaddam, 1987).

The use of ethnic conflict and intergroup behavior has been criticized when used interchangeably with intergroup relations (Taylor & Moghaddam, 1987). For example, Mummendey and Wenzel (1999) suggest that ethnic conflict is not only illustrative of the tendency of social psychology to focus on the most problematic and inadvertently negative aspects of intergroup interactions, it also imposes a narrow lens from which to view intergroup relations. In addition, Taylor and Moghaddam (1987) suggest that the focus on “intergroup behavior”, when describing cross group interactions, neglects cognitive processes and instead focuses on just observable aspects of intergroup relations.

It is Taylor and Moghaddam’s (1987) contention that a comprehensive review of intergroup relations would include intergroup behaviors and attitudes, directed at studying both problems and solutions. Similarly, Brewer and Kramer (1985) maintain that the study of intergroup relations is based on how attitudes and behaviors are shaped by the existence of social categories and boundaries. Before we further discuss the current study of intergroup relations by social scientists, it may be helpful to discuss the definition and measurement of its core components, attitude and behavior.

Intergroup Attitude. According to Shelton (2000) "most formal measures of attitude and most research on attitude are concerned with people's affective or evaluative reactions to other people, institutions, ideas, or aspects of the physical environment." Similarly, Wicker (1969) defines attitudes as being positive or negative evaluations of concretely or abstractly represented concepts or objects. Attitudes are often conceptualized and measured in terms of a cognitive component, or beliefs, and an affective component, or feelings associated with the object of interest (Shelton, 2000; Wicker, 1969). While he agrees that both components exist, Wicker (1969) does not distinguish between the cognitive and affective components and points to the tendency for these aspects to be included together in verbal measures of attitude.

A review of literature indicates that the assessment of attitudes toward other groups among adult populations often requires confirming prejudice statements, attributing negative characteristics to group members, or expressing feelings about a hypothetical interracial situation. (Dowden & Robinson, 1993; Duckitt, 1993). Typically, the assessment of attitude employs a direct method that requires an individual to judge racial statements as more or less true/positive on a Likert scale: these methods have been found to be reliable indicators of intergroup attitudes (Cunningham, Preacher & Banaji, 2001; Duckitt, 1993). However, as Cunningham et al. (2001) note, indirect approaches may be more useful in reducing bias created by the item. Some indirect or implicit methods of measuring attitude, such as the

measurement of physiological response and response latency, do exist. These methods are increasingly becoming popular, but as also noted by Cunningham et al., the validity and reliability of implicit methods are in need of further exploration.

Direct methods of evaluating intergroup attitudes are often used in the study of intergroup relations in both adults and school age children. For example in Bratt's 2002 study of Norwegian adolescents, students were asked to evaluate the personality traits of different ethnic groups. Although direct methods of assessing attitudes are useful, Phinney, Ferguson and Tate (1997) note that using racial stereotypes is often depersonalizing and does not lend itself to the natural environment of schools. Phinney et al. (1997) suggest rating peers who are representative of the population in positive or negative terms which are familiar to a student's environment would be a more useful means of measuring intergroup attitudes. Consistent with this, measures of intergroup attitude in school settings typical include feelings of being around or interacting with cross race members. For example, in the analysis of racial change at Wexler Middle School, a school designed to create integrated racial experiences, interviews with students were used to assess whether attitudes had changed negatively or positively (Schofield, 1989).

In summary, attitudes are positive or negative evaluations of experiences that are typically measured through verbal means. Past literature would suggest that attention be given to the cognitive and affective components when assessing intergroup attitudes among students. While divergent means of assessing intergroup

attitude are often proposed, Ajzen and Fishbein (1997) suggest that including a measure of specific as well global attitudes would provide a more comprehensive measure of intergroup relations.

Intergroup Behavior. Sherif and Sherif (1969) define intergroup behavior as “the actions of individuals belonging to one group when they interact, collectively or individually, with another group or its members in terms of their group membership.” Behaviors are distinctive as observable or overt phenomena, an example of which might include discrimination. Behavior, in contrast to attitudes, is considered to be situationally determined (Duckitt, 1993). Although attitudes are considered consistent and related to the individual’s belief system, behavior is theorized to be influenced by the present circumstance.

The past intergroup literature has found a variety of ways to assess intergroup behavior. In a study which evaluated an instrument for measuring prejudice towards groups, trained observers used behavior cues, such as smiles and proximity during cross race social interactions, to measure intergroup behavior (McConnell & Leibold, 2001). In addition, much of the past research on intergroup behavior involved an experimental condition in which a resulting behavior is observed after an intergroup situation has been staged (Duckitt, 1993). For example, in a study which assessed white college students’ self-reported willingness to pose for and release interracial publicity photographs, students comfort level and participation was measured by observers at an actual photography session.

Although outside observers were often used to assess behavior in intergroup settings involving college students and adults, more recent research of intergroup relations in public schools often relies on self-report of students to determine whether students engage in intergroup behavior (Carlson, Wilson & Hargrave, 2003; Singleton & Asher, 1979). One example of students' self-reported intergroup behavior is demonstrated by Schofield (1979) who relied on middle school students to report with whom they sat during lunch as a measure in intergroup behavior. This focus on perception of engaging in specific activities with members of different groups is useful as it is more likely to provide a representation of intergroup behavior for the individual.

In summary, behavior is an observable occurrence that can be measured through direct observations or self-reports. Research conducted in schools often uses self-report measures that allow expression of a variety of behaviors. This is especially important as researchers suggest that measures that incorporate multiple samples of behavior are most useful and more representative of intergroup relations than measuring a single act (Ajzen & Fishbein, 1997).

In the past, social scientists have explored the concepts of attitude and behavior together and assumed that some relationship exists. It was assumed that as evolved creatures, humans are guided by cognitive processes and subsequently behavior followed attitude. Attitude was conceptualized by some social scientists as a latent variable, the expression of which was behavior (Allport, 1954; DeFluer &

Westile, 1963). It was also postulated that the probability of a behavior occurring could be predicted with the knowledge of attitude (Wicker, 1969).

More recently, it has been suggested that the relationship between attitude and behavior is not as clear and direct, or may not exist. For example, in contrast to the assumption that behavior follows attitude, some research demonstrates the opposite effect, i.e. attitude follows behavior. One example of this inverted relationship would be cognitive dissonance. Investigations of cognitive dissonance suggest that a change in attitude might occur to align thoughts with behavior (Aronson, 1992).

One possible reason for the lack of predictability in the relationship between attitude and behavior are the different external as well as internal influences on thoughts and actions. Trafimow (2000) suggests that intergroup environments, in particular, may produce inconsistencies in private attitudes and public behaviors. For example, in a longitudinal study conducted at a liberal university, Rothbart and John (1993) found that although white students stated that they admired qualities of African American and Asian students, their company was not sought. As early as 1934, anecdotal evidence of the weak relationship between private attitude and public behavior was evident when hotel and restaurant proprietors reported anti-Chinese sentiment but documentation of visits indicated these same proprietors were willing to serve Asian customers (Wicker, 1969). This lack of consistency between private attitudes and public behavior as it pertains to intergroup relationships in desegregated settings is best summarized by the conclusion of Schofield (1995a):

Although it is difficult to substantiate this conclusion (the possibility of positive cross-race behavior in a racially stereotyped environment) on anything other than a logical basis, it seems obvious that interracial behavior is more likely than intergroup attitudes to be changed by desegregation. Unless a school is completely resegregated internally, the amount of interracial contact had to increase in a newly desegregated environment. In contrast, attitudes do not have to change (p.610).

Although attitude and behavior appear to function differently, and no certain connection has been made between the two, both thoughts and actions are considered to be integral elements in the measurement and investigation of intergroup relations. Researchers, such as Jean Phinney, recognize the need for a comprehensive measure of intergroup relations that includes both attitude and behavior. In her assessment of a scale designed to measure various aspects of intergroup relations and identity among middle school students, Phinney (1997) created a scale called Other-group Orientation which touches on both specific attitudes and a general pattern of behavior towards members of other groups.

In addition to the complexity of the concepts that measure it, the area of intergroup relations sparks much discourse in social psychology based on the determination of when an intergroup process has actually occurred. For example, Taylor and Moghaddam's (1987) warn that although divergent groups must be present, the presence of representatives from two groups is not necessarily an example of an intergroup relationship.

The Relationship Between Interpersonal Contact and Intergroup Relations

In his book on group processes, Brown (2000) reiterates Allport's 1962 assertion that determining the relationship between interpersonal processes and intergroup relations is the great problem of social psychology. In their book on intergroup processes, Sedikides, et al. (1998) attempt to bridge the gap between theories based on individual versus group cognition and behaviors; they call for the need to more effectively incorporate these issues in creating effective and useful dialogue about intergroup relations.

As mentioned above, social psychologists' study of intergroup relationships began to focus on issues of communal conflict and unrest based on group membership at the beginning of the 20th century. From this group perspective, intergroup relations are thought to be collective in nature, and acted out based on other groups' lack of membership to one's own group. From this viewpoint, the nature of all interactions between people is thought to be determined by group membership (Turner, 1999). A larger group psyche as the solitary means of describing intergroup attitude and behavior, as suggested by Zimbardo (in Brown, 2000) and Sherif et al. (1961), has been rejected by many exploring intergroup group conflict and contact. For example, Fisk and Taylor (1984) suggest that perceptions of the social world are based on how individuals process information, rather than how the group does. According to Fisk and Taylor, we rely on perceptions readily available in the

environment to form opinions in an attempt to conserve cognitive processes; this conservation is viewed by some as group or social cognition. According to Fiske and Taylor, this conservation should not be mistaken for the lack of individual thought at the root of attitudes and behavior. While they do not contradict the presence of individual thought, Turner (1982) and Condor and Brown (1988) caution against neglecting group cognition and suggest that environmental factors *can* trigger a mass group reaction based on how people identify themselves socially, rather than individually.

The incorporation of psychological ideology has broadened how theories and processes of intergroup relations are conceptualized. The shift in the social psychology perspective on intergroup relations was largely influenced by the psychological emphasis on individual processes. This psychological emphasis tends to denote intergroup relationships as being an extension of more personal perceptions and interpersonal contact. Acknowledgment was given to the idea that individuals react differently in intergroup conflict conditions. Some authors even argue there is no such thing as a group cognition, only individual perceptions, thus there is no collective meaning given to groups based on interactions among people (Turner & Oakes, 1986). Interactions from this perspective are thought to be based on individual characteristics and of an interpersonal rather than intergroup nature (Turner, 1999). In a less restrictive description, Jackson (1993) distinguishes interpersonal contact from intergroup contact by broadly describing it as any contact in which group

membership is not prominent. This distinction is consistent with the Taylor and Moghaddam (1987) definition of intergroup relations as being interactions that elicit thoughts of belonging to a group.

Brown and Hewstone (1986) suggest that the confusion in understanding the roles of intergroup and interpersonal effects when people interact largely stems from the lack of theoretical distinctions between the two, and the loose manner in which terminology is used. Tajfel (1978) suggests three important distinctions between interpersonal and intergroup interactions. The most important criterion that indicates intergroup meaning is that two distinct social categories are present. The second criterion is the consistency among members regarding attitudes and behaviors. The third criterion is the consistency of individual attitudes towards other group members. The absence of any of these criteria would indicate an interpersonal interaction. These criteria overlook two important issues. As mentioned in the previous discussion, the relationship between behavior and attitudes is difficult to predict and has been found to be inconsistent. In addition, the necessary inclusion of the three criteria suggests an all or nothing distinction between interpersonal and intergroup interactions, which is rarely possible. All definitions of intergroup process agree that two distinct groups must be present, but many definitions either state that the group must be in agreement, or the individual must consistently believe the same about all group members. Hence, by most intergroup definition standards, only two of the three criteria would need to be supported in order suggest an intergroup process.

Brown (2000) and Turner (1999) characterize interpersonal and intergroup behaviors as lying on a continuum, with aspects of interpersonal and intergroup characteristics included more or less in each interaction among people. While this is a useful manner in which to incorporate the seemingly competing types of interactions, some distinctions are proposed that may provide more clarity to the continuum of interpersonal and intergroup interactions.

It may seem intuitive that two people interacting on a one-to-one basis is interpersonal. While this interaction can be behaviorally described as interpersonal, the distinction between whether an intergroup or interpersonal process has occurred is not merely based on the number of individuals who interact. The quality and content of the contact among people is what is considered by Brown (2000) to be the true indicator of whether the interaction was interpersonal or related to the larger group. In many social situations, it is impossible for an observer to distinguish whether the interaction is one of an intergroup or interpersonal nature. An observer of the interaction can attempt to make distinctions, but ultimately the interpersonal or intergroup implications of an interaction are cognitively and psychological determined by the individual (Brown 2000).

Consistent with the proposition by Brown that the interpersonal versus intergroup meaning of a situation is one of a personal nature, the definition of intergroup relations provided by Taylor and Moghaddam (1987) suggests that any situation that elicits thoughts of group membership *for an individual* is a situation of

an intergroup nature. Although this definition suggests a group process and fails to address the demonstration of behavior, the intergroup distinction provided by Taylor and Maghaddam does suggest that the individual, rather than the interaction, is the impetus for defining an intergroup interaction. It can therefore be concluded that the interpersonal to intergroup connection of an interaction is determined by the individual in the experience.

While at its origin an interaction may be interpersonal, there are specific situational variables that are thought to aid in the shift in perception to intergroup. One such variable is theorized to be the perception of the presence and importance of one's group (Brown 2000). In particular, individuals who believe personal group characteristics such as race, gender, or religion are contained in the content of an interaction are likely to be influenced by this perception. In addition, the environmental condition perceived to be related to group membership (e.g. prejudice or discrimination) can influence whether the exchange shifts from an issue that affects personal identity to becoming an issue that affects the larger group, or social identity (French et al., 2000; Turner, 1982). This explanation suggests that not only is it necessary to explore an individual's perception, but it may be necessary to explore whether environmental cues have facilitated the shift to intergroup perception. Any useful dialogue designed to explore the relationship between interpersonal and intergroup relations would have to incorporate the degree to which thoughts of group identity are elicited by the environment (Brewer & Miller, 1984). The connection

between interpersonal and intergroup processes will later be discussed from a theoretical perspective that incorporates the influence of social identity. But as means of defining and measuring intergroup processes has been discussed, it would be useful to address the definition and measurement of interpersonal contact.

Defining and Measuring Interpersonal Contact

Researchers of interpersonal contact suggest that there are varying levels of contact which influence the meaning of interracial experiences. For example, in his exploration of interpersonal contact, Forbes (1997) explains that there are two types of contact, one being casual, and other true acquaintance. Casual contact is that which is engaged in by mere presence, while true acquaintance is that which individuals actively engage. Carter et al. (1977) suggest that these two levels have different implications for intergroup relations. Following is a brief exploration of casual and true acquaintance interpersonal contact with their suggested influence on intergroup relations.

Casual Interpersonal Contact. Casual interpersonal contact is the contact individuals engage in by merely being in the presence of those who are different (Forbes, 1997). The racial composition of an environment is often indicative of the casual cross-racial interpersonal contact in which individuals will engage (Sigelman & Welch, 1993; Stein, Post & Rinden, 2000). In their study of the impact of contact on racial attitudes, Sigelman and Welch (1993) used racial composition of nearest public school and

neighborhood as a measure of casual contact. Stein. et al. (2000) conceptualized racial proportion of neighborhoods as being a measure of casual contact as well. Race proportion was typically used to measure interpersonal contact in past studies of intergroup relations which explored students' relationships in schools (Schofield, 1995a). It was assumed that as the proportion of other race peers increases and the proportion of same race peers decreases, probability of intergroup behavior, would increase (Blau 1994).

Scientist creating intergroup hypotheses based on casual contact assumed positive intergroup results: however, research on casual contact was not conclusive. In fact, research indicates that the actual and predicted likelihood of intergroup relationships based on the assumption of casual contact does not match. Joyner & Kao (2000) found that students who attend 70% same race schools are not dramatically more likely to have interracial friendships than students attending 100% same race schools.

In an effort to reconcile contradictory information, researchers of intergroup relations suggest that certain racial proportions of populations lead to a balance that fosters more positive attitudes (Davis et al., 1995; Longshore 1982a; Longshore 1982b). Davis' et al. (1995) study on the effects of group membership of White and African American college students found that group atmosphere was most favorable when either group was in the majority and least favorable when neither group was in the majority. Specifically, when African Americans made up approximately 30% of

the group, intergroup perceptions were more positive, and when African Americans made of 50% of the group, relationships were least positive. After 50%, the intergroup atmosphere improved significantly. These findings demonstrated a nonlinear, or a "U" model of the relationship between the number of African American students and the intergroup relations of students. This nonlinear pattern is consistent with Patchen's (1982) findings in his exploration of middle and high schools which indicate that when the populations of African Americans was between 10-50%, relationships between blacks and whites generally worsened, and both groups reported avoidance and unfriendly contact. Patchen's study also found that when the population indicated a clear African American majority, relationships among groups were best: avoidance decreased, unfriendly contact decreased, and friendly interactions reported by White students increased (Patchen, 1982).

The research of casual contact in schools, as is demonstrated in the previous studies, was often interpreted from the perspective of black-white relations. In addition to examining the general opinion of white students towards African American students or African American students toward white students, research was often written from the perspective of exploring the impact of the exposure to African American students to changes racial attitudes of white students. Few studies of casual contact have incorporated the opinions of other ethnic groups, such as Hispanics. Rather than gathering opinions of general racial attitudes, it appears that a more useful reframe for exploring casual interpersonal contact may be to consider a group's

racial proportion in relation to others, and exploring if the minority or majority status of one's own race is a better indicator of intergroup attitudes of discomfort and avoidance. This is particularly important given that the population status of the United States shifts from a clear White majority, and an increasingly diverse minority population. The increase in the population of Hispanic Americans in the United States' school system means exploring the experience of casual interpersonal contact with a variety of ethnicities will have to be considered. In increasingly racially mixed schools, the change of racial composition greatly affects the chance of being in the presence/ proximity of, and participating in casual interpersonal contact with, students of varying races.

True Acquaintance Interpersonal Contact. In contrast to casual interpersonal contact, true acquaintance interpersonal contact involves more active engagement in interaction with another individual (Forbes, 1997). In a study exploring intergroup relations, Sigelman and Welch (1993) used respondent's answers to the question of whether or not they had "close personal friends" from other racial groups as a measure of close interpersonal contact. Similarly, Hallinan and Teixeira (1987) used reports of friendships in contrast to classroom racial composition to differentiate between global and individual level interracial interactions.

Pettigrew (1998) noted that to affect intergroup relations, it is important that situations allow the opportunity for friendship. Dutton, et al. (1998) also found that exposure is not sufficient for interracial acceptance among children - acquaintance is

also necessary. Similarly, in their discussion on the developmental context of interracial friendship, Carter et al., (1977) suggested that according to Levingers' theory of attraction, the development of racial attitudes is based on three levels of relatedness; awareness, superficial interaction, and mutuality. He proposes that interracial interaction that allows mutuality involves an emotional investment, and further allows friendship and true acceptance.

The impact of true acquaintance on intergroup relationships may be especially important for early adolescence. Early adolescence is the period when cross group processes appear to have the most influence and impact (Hallinan & Smith, 1985). In a longitudinal study conducted by Jelinek and Brittan (1975), same-race friendship patterns were found to increase the greatest between the ages of 10 and thirteen. This pattern was also determined in a study by Singleton and Asher (1979), who found that children first tested in the third grade later showed an increased preference for same race peer in the sixth grade. While some authors attribute these increases in same race peer selection to the development of racial awareness, these choices are consistent with other social and interpersonal developmental changes occurring in early adolescence. When comparing children first tested in third grade and later test in sixth, Singleton and Asher (1979) found that the participants demonstrated a general increase in number of friends chosen *overall*. In addition, they tended to rate one another more positively. Steinberg & Silverberg (1986) found that the reliance on peer influence on the formation of identity increased for early adolescents. These

findings indicate an increasing importance of peers associations and an increase in intensity of interpersonal relationships.

Not only is true interpersonal contact an important aspect of students' lives, but research has supported that it has a significant impact on intergroup relations. Results of school based research on cooperative learning indicates that classrooms which created closer interpersonal experience positively influenced respect and liking among peers in ethnically diverse classrooms (Johnson, Johnson & Maruyama, 1984; Weigel, Wiser & Cook, 1975).

In summary, interpersonal contact has been conceptualized as consisting of two levels: casual and true acquaintance contact. Casual interpersonal contact is that which takes place by mere presence. In research regarding intergroup relations in schools, racial proportions often have measured casual interpersonal contact. In contrast, true acquaintance interpersonal contact is that which individuals actively engage. In schools, friendship choices typically have measured true acquaintance interpersonal contact. As mentioned, both are important to the study of intergroup relations and desegregation. The findings mentioned above support that the distinction between causal and true acquaintance contact may be particularly important to intergroup relations among early adolescent age students. Research findings also suggest that true acquaintance contact is that which has the most impact on interracial attitudes (Forbes, 1997; Sigelman & Welch, 1993).

Although true acquaintance has been found to have a stronger impact on intergroup relations, it would be negligent to overlook the impact of casual interaction among students in interracial environments. Given the social stratification of American society, casual cross-race interpersonal contact will be more common than true acquaintance (Rothbart & John, 1993). In addition, casual contact is significant because it can facilitate the opportunity for cross-race friendships in interracial environments (Ellison & Powers, 1994; Stein et al., 2000). Both levels of contact influence perceptions of interracial relations, with more casual contact particularly affecting perceptions for White Americans (Sigelman & Welch, 1993). In contrast, close friendship relations have been found to be particularly important for intimate communication and social interaction for African American students (Ellison & Powers, 1994; Hammer & Gudykunst, 1987).

Stein et al. (2000) point out that, with the exception of Sigelman and Welch (1993), previous research has failed to examine both features of contact together. Further examination of the Sigelman and Welch study reveals that while the two concepts are explored, no comparison is made regarding whether casual or true contact is more influential to intergroup relations.

The idea that increased interpersonal contact is important to positive intergroup relations has historical roots in United States race relations. Social activists and political officials attempting to integrate schools in the U.S. relied on research regarding groups which suggested that racial interaction would help reduce prejudice

and stereotyping. While many important lessons about integration have been learned by exploring intergroup relations and students in the educational system, the study of intergroup relations among students in desegregated school systems raised more questions than it was able to address. Some studies indicate a positive influence on intergroup relations, some suggest a negative impact, and some indicate no impact at all. For example, a review of research regarding intergroup relations in desegregated school settings conducted by Jackson (1993) concludes that short term results of new interracial contact failed to show large positive effects but led to long term positive effects for intergroup relations. A review of intergroup research by Schofield (1995a) concluded that results were inconsistent and varied based on school environment and ethnicity studied. In addition both Schofield (1995a) and Forbes (1997) suggest that many studies of desegregation and contact focused on attitude with little to no attention given to behavior (for comprehensive reviews, see Jackson, 1993; Schofield, 1995a; Smith, 1994). These mixed results have left many questions about whether increasing the opportunity for cross race interpersonal contact has the desired positive effects on intergroup relations.

Contact Theory

Researchers and proponents of desegregation originally assumed and hoped that the opportunity for different races to interact would lead to positive interactions among racial groups in schools. These assumptions were based on contact theory.

Contact theory predicts that contact between members of different races fosters positive racial attitudes while absence of this contact fosters stereotyping, prejudice, and ill will towards others (Allport, 1954; Forbes, 1997). According to contact theory, the positive effects of intergroup contact are thought to be enhanced when conditions are conducive to positive interaction. Specifically, these conditions included equal status among the groups, the groups are in pursuit of a common goal, there is cooperation between the groups, and when the contact is sanctioned by authorities (Allport, 1954). It is believed that direct and extended interaction with out-group members provides positive information that is contrary to previously held negative beliefs and assumptions (Ellison & Powers, 1994). The rationale of contact theory seemed to fit with the changing structure of the education system. Subsequently, much of the past research which explored intergroup relations in schools was based on contact theory (Forbes, 1997; Rogers, Henningan, Bowman, & Miller, 1984).

Research of intergroup relations in desegregated settings, based on contact theory, has been criticized by investigators summarizing the literature (Schofield, 1995a; Smith, 1994). One criticism is that many researchers inferred that equal status and authority support conditions were inherent to desegregation (Smith, 1994). It is now clear that desegregation was implemented in a variety of ways in public schools. Ensuring compliance with the federal mandate to desegregate was largely left to local municipalities. Little attention was given to best practices for implementation and strategies for integrating minority students into the curriculum and culture of majority

schools (Fisher & Sorenson, 1996; Hawley & Rist, 1977). Consequently, conditions of contact theory that were purported to foster positive intergroup relations were rarely, or at the most, haphazardly met in school environments (Rogers et al., 1984). For those who attempted to operationalize the conditions of contact theory, it was a difficult task and these conditions were measured in a variety of manners (Forbes, 1997; Smith, 1994).

Research of intergroup relationships based on contact theory relied heavily on comparisons between desegregated and non-segregated school settings. By using desegregation as the independent variable of contact against which changes in intergroup relationships were measured, variations within desegregated schools significantly affect research results. The inconsistent manner in which desegregation was implemented made measuring the conditions of contact theory difficult, and often rendered comparisons between schools useless in determining the intergroup effects (Jackson, 1993; Schofield, 1995a; Smith, 1994). Brewer and Miller (1984) argue that these conditions, although intuitive, were not based on theory. According to Brewer and Miller's argument, based heavily on social-identity theory, eliminating status differences runs the risk of arousing the need to re-establish status differences. In addition, they note that although introducing cooperative interdependence creates an environment for positive intergroup contact, the specific manner in which cooperative interactions must be structure do not lend to easy generalization. Brewer and Miller

argue that conditions such as equal status and cooperative interdependence are more likely to emerge as a *result* of positive intergroup relations.

By the end of desegregation, the above mentioned criticisms lead many researchers to move beyond believing in the necessity that all of the conditions of contact theory be met in order to see effects of contact on intergroup relationships. More focus has been given to individual perceptions of the intergroup experience and understanding factors that moderate the relationship between interpersonal contact and intergroup relationships (Brewer & Miller, 1984; Sigelman & Welch, 1993; Dovidio et al., 2003).

In summary, many challenges were found in using the contact theory as an explanation of outcomes when different races interact. However, the concept of contact in and of itself has been useful as a method of exploring intergroup relationships. The essence of contact theory is that when people interact, a shift in perceptions occurs from the individual or interpersonal level to the group (Brewer & Kramer, 1985). Generalization is essential to contact theory, and the conceptualization of contact is consistent with the idea mentioned above, that interpersonal interactions would positively influence intergroup relationships. With this said, the above clarification of casual and true interpersonal contact may aid in more appropriately measuring the intergroup effects of cross-race interaction.

Although true acquaintance contact, rather than casual contact, may be more useful in determining how interacting with others affects intergroup relationships,

Pettigrew (1998) pointed out that the contact theory still does not account for how dyadic interactions created by contact may generalize to intergroup behaviors and attitudes. Some authors suggest that while issues of the environment such as authority and cooperation are evaluated in the conditions of contact theory, the *process* by which the situation affects intergroup relations has not been addressed.

Social Identity Theory

One theory that has been suggested as being useful in explaining the process of contact theory, and thereby explaining the relationship between interpersonal contact and intergroup relations, is social identity theory. Social identity theory has often been used to describe the nature of intergroup relationships and provides an explanation for the possible underlying cognitive processes that may be occurring during interactions. It assumes that individuals define or evaluate themselves relative to group membership instead of personal characteristics and work to maintain a positive identity in this context (Forbes, 1997; Turner, 1999). Thus, social identity theory includes emotional and evaluative processes that occur when considering one's identity (Turner & Oakes, 1986). This is not to suggest that there is a social versus personal self, rather social identity has been conceived as a part of the self that is elicited by social circumstances (Tajfel, 1978; Turner, 1999). Social identity theory attempts to relate intergroup behavior to the social context. It suggests conditions

under which we attempt to maintain or change the group situation in order to obtain or maintain a positive social identity (Taylor & Moghaddam, 1987).

While social identity theory is the overarching theory, social categorization is the process of social identity that affects perceptions of others. According to social categorization, individuals increasingly organize their social world into discrete categories based on the presence and meaning of the group category. As these categories become more discrete, they also increase in emotional significance or salience, and subsequently lead to viewing greater differences among those outside the group and increased similarities of those within the group (Brewer, 1996; Forbes, 1997; Tajfel, 1979). In particular, when a negative attribution is given to one's group, the individual is motivated to protect the larger group identity by which she has come to define herself in the environment. This process is consistent with research that indicates that there is a tendency to pick similar members for one's primary social group even when the opportunity allows for cross group interaction (Blau, 1994). Natural tendencies such as social categorization and in-group bias can lead to positive affect for those within the group and negative affect for those outside the group, dependent on the positive or negative nature, and significance of the attributes given to one's social category in relation to others.

Our social, historical, and cultural lives make some categorizations, such as gender and race, seem a natural ordering of American lives. Race is a particularly strong category by which people group themselves because of the obvious physical

and cultural differences that are present (Rothbart & John, 1993). Many who interact with children express concern that social categorization is often unwittingly promoted through the encouragement of pride in social group differences. Given the United States' social history, attempts to ignore group differences are unrealistic and likely unproductive. While seemingly negative, the encouragement of differences based on group category can have positive consequences as pride in one's group has been found to be particularly important for the positive identity and psychological development of children, particularly minority children (Gonzales & Cauce, 1995).

Social categorization does not indicate the cohesiveness of a group or how the group perceives others. Rather it explains how cohesion within groups and perceptions toward others occur based on the salience, or attention given to the group, created by the environment. Similarly, group, or social identity, is not determined alone by the salience given to it by the environment, but it is also dependent on the importance given by the individual (Thompson, 1999). The absence of a strong identification with a group, and the absence of negative environmental salience for those who strongly identify with a group, may mean an interpersonal interaction may not affect how an individual feels about the representative group with which they are interacting.

Pettigrew (1998) concluded that positive interpersonal contact with other groups is most effective when group meaning is not made prominent in an interaction. Similarly, Dovidio, et al. (2003) suggest that category salience and personalization of

identity are crucial to moderate the relationship between interpersonal contact and intergroup relations. White and Burke (1987) indicate that the importance of identity is based on the evaluation of group identity as well as the commitment to the identity. Gurin, Miller and Gurin (1980) found that identification and consciousness were influential in one's orientation to acting collectively as a group. These two issues, strength of group identification and the negative or positive meaning applied to the group in the environment (from here on to be collectively conceptualized and referred as "identity group salience"), appear to be crucial in determining whether an interpersonal interaction will be given intergroup meaning.

Combining Social Identity and Contact to Explore Intergroup Relations

It is clear from social identity theory that conditions in the environment influence the way we think and act. Brewer and Miller (1984) make this assertion:

Because it deals with the reciprocal relationships between structural features of the social environment and perceptions and motivations at the individual level, social identity theory provides a useful integrative framework for the study of intergroup contact and its effects (p. 283).

Brewer and Miller (1984) provide a useful model for exploring the integration of contact and social identity in the study of intergroup relations. They suggest that a reduction on emphasis of difference in social identity decreases negative out-group

evaluation and subsequently increases positive intergroup relations. According to Brewer and Miller:

Participants must first abandon social-category identity as a primary basis for organizing information, replacing it with more individuating and personalized information processing before other changes in intergroup acceptance will emerge (p. 296).

Their proposed model appears in figure 1. In this model, designed to be applied to desegregation environments, cooperative interdependence is considered the contact variable whose influence on changing social interactions is moderated by perceptual-cognitive variables.

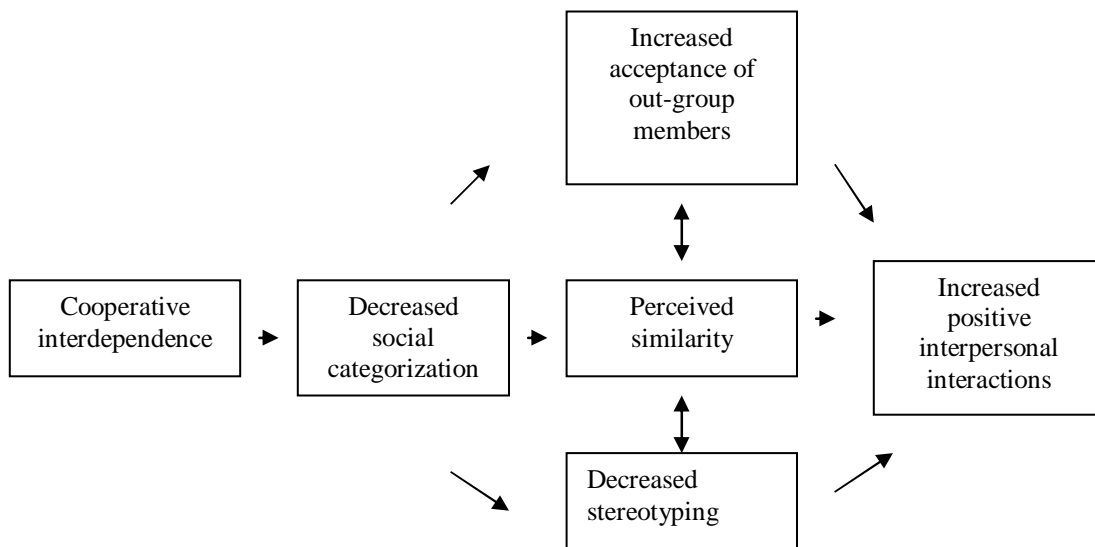


Figure 1. Model of the process of intergroup contact effects: (C) Model 3.

Note. From Groups in Contact: The Psychology of Desegregation (p. 297) N. Miller and M. B. Brewer, 1984, Place: Academic Press. Copyright 1984 Academic Press. Adapted with permission.

In their suggested exploration of this model, Brewer and Miller propose several important steps. First, it is necessary to measure participant involvement in the contact situation. Next would be an assessment of the emotional significance of the group categorization. Following this would be to assess the differential response to intergroup relationships. They go on to suggest a program of laboratory experiments that would test this model, but point out that laboratory research cannot fully capture the complex nature of intergroup relationships that are inherent to research of real-world conditions, such as racially mixed schools.

This model strongly supports the proposition that identity influences the relationship between intergroup relations and interpersonal contact. While identity group salience may be an explanation of the shift from an interpersonal to an intergroup interaction, few studies have been conducted to specifically examine this shift in perception. The link between an individual attributing group characteristics when salience of group membership has increased has been well-documented (Sharif et al., 1961; Simon, Panteleo & Mummendey, 1995). In addition, studies have been conducted that broadly explore the relationship between interpersonal and intergroup attitudes and behaviors. The incorporation of group identity processes when exploring the relationship between interpersonal interactions and intergroup relations, however, has not been explored. In order to test theories that propose to explain the shift from interpersonal to intergroup interactions through underlying cognitive processes, there are several important tasks, consistent with those deemed important by Brewer and Miller.

The first task in exploring the interpersonal/intergroup relationship is to determine the actual level of interpersonal interaction in which the person participates (i.e. participant involvement in Brewer and Miller's model). Based on Carter et al. (1977) and Forbes (1997), determining interpersonal interaction would include casual and true acquaintance contact interactions that have significance for the individual. Assessing an individual's perception of contact would be the purest indication of an interpersonal interaction. The subjective nature of perception however, makes

interpersonal contact a difficult concept to measure. In addition, an individual's assessment of the interpersonal nature of contact is not necessarily a conscious process. Using an objective measure of both casual and true interpersonal contact that can be consistent across individuals would be an important part in exploring the interpersonal/intergroup relationship.

The next task in exploring the interpersonal/intergroup relationship is to attempt to measure the cognitive and motivational processes that contribute to the interpretation of interactions (i.e., assessment of the emotional significance of the group categorization). This could be accomplished by first gauging how strongly an individual identifies with her social category, as well as whether or not negative group thoughts are elicited by the environment. While it is quite difficult to measure actual cognitive categorization processes, we can measure environmental and emotional factors thought to evoke this response. Thompson (2000) utilized experiences of racism which include discrimination and instances of insulting comments against one's group to explore salience of group identity. Following social identity, if salience of the individuals' group identity is raised, and that person strongly identifies with this category, then those cross race interpersonal interactions should have a positive relationship with intergroup attitudes and behaviors. This relationship would suggest that group identity has facilitated the connection between interpersonal contact and intergroup relations.

The final step in exploring the interpersonal/intergroup relationship is to measure intergroup processes (i.e., assess the differential response to intergroup relationships). This would include measuring sentiment toward the larger group to which members of differing social groups belong. In addition, it would be important to understand whether or not individuals are open to and actually engage in activities with other groups.

As was pointed out by Sigelman and Welch (1993) contact is not the only issue known to influence perceptions and intergroup relations. Individual characteristics such as gender and socioeconomic status, other significant means by which we group ourselves, are often confounded with racial issues. These must also be considered in the study of interpersonal contact and intergroup relations.

During the desegregation era, as in many current educational systems, schools generally strove to reduce or ignore differences among groups, in order to reduce conflict among ethnic students (Gonzales & Cauce, 1995). Race is clearly a salient issue among children. In fact, exposure to other groups may increase the focus on differences (Dutton et al., 1998). In addition, as schools become more diverse, differences will have to be addressed both in curriculum and social aspects of public schools.

As was mentioned above, the acknowledgment of differences among students does not necessarily correlated with negative interactions. Dutton et al. (1998) also found that students attending racially mixed schools had more friends from other

groups. In contrast, students at nonintegrated schools disliked other races more.

Nonetheless, along with acknowledging differences, schools will be challenged to provide experiences that will facilitate the growth of positive intergroup relations.

In the spirit of exploration and solution, this study examines the experience of students in mixed racial environments. To suppress or ignore differences that are experienced on a daily basis is neither prudent nor possible. Understanding the relationship between interpersonal contact and intergroup relations in middle school will not only provide insight to cooperative living but may also suggest areas to focus for positive intervention for intergroup relations in an increasingly diverse world.

Statement of the Problem

This study is an exploration of how interpersonal contact influences the intergroup attitudes and behaviors of middle school students. Several theories to explain the connection between interpersonal contact and intergroup relationships among students have been proposed. The most common explanation of the relationship is contact theory. Contact theory suggests that the opportunity to interact with individuals from different groups may promote a shift in how the entire group is perceived by an individual. According to contact theory, increased interaction with individuals outside one's group will decrease negative perceptions about the group to which they are perceived to belong. When contact theory has been tested in research, however, the results have been inconclusive. Studies have likely resulted in equivocal findings because the nature of contact most useful in determining the interpersonal-intergroup relationship has neither been clearly defined nor consistently utilized.

The literature regarding interpersonal contact suggests that there are two main levels that affect intergroup relationships: casual interpersonal contact and true acquaintance interpersonal contact. Research has found true acquaintance interpersonal contact to be more predictive of intergroup attitudes and behaviors. Although this finding has been supported in existing studies, casual interpersonal contact remains an important variable as it is the most common interracial contact in which individuals engage. Casual interpersonal contact is especially important in multiethnic environments; multiethnic environments are situations in which the level

of casual contact is beyond the individual's control. This study explored the relationships between both casual and true acquaintance interpersonal contact and intergroup behaviors and attitudes. This study also explored whether true acquaintance interpersonal contact is more predictive of intergroup behaviors and attitudes than is casual acquaintance interpersonal contact.

Although the contact theory suggests that interpersonal interactions can generalize to intergroup attitudes and behaviors, results are unclear as to what type of interracial environments can influence whether interpersonal interactions generalize to attitudes and behaviors toward other groups. In addition, individual underlying processes that may influence this generalization have not been explored within contact theory. To scientists exploring intergroup relations, and social activists hoping to make a difference in these interactions, understanding the process of contact, rather than the outcome, may provide clues to prevention of and intervention in conflict among groups.

Social identity theory has been offered as an explanation of the underlying cognitive and motivational processes that drive the influence of contact on an individual's outlook towards groups different from one's own. Social identity suggests that we all have a tendency to categorize people as similar or different, and we are more likely to identify with those who are similar and build a social identity based on the similarities. In addition, we all make efforts to maintain a positive social identity. Social identity theory proposes that negative inference given to one's group

will negatively affect social identity, subsequently causing an effort to restore a positive identity by applying negative attributes toward other groups. Two factors, the level of identity one has with one's group, and the level of negative focus on one's group in the environment, collectively called group identity salience, combine to determine what level of significance interpersonal interactions have on intergroup relations.

An integration of social identity theory with contact theory would suggest that if group identity salience is low (the combination of low group identity and limited environmental focus on the group), interpersonal contact will influence intergroup attitudes and behaviors. Specifically, positive interpersonal contact will generalize to positive intergroup relations. If the identity group salience is high (positive group identity combined with negative environmental focus on the group), then even positive interpersonal contact with members in other groups will not generalize to positive intergroup relations because the individual is motivated to maintain a negative view of other groups.

Based on Brewer and Miller's model (1984), this study first tested contact hypothesis, which suggests the existence of a relationship between interpersonal contact and intergroup relations. The relationship between both casual interpersonal contact, as measured by the racial proportions in one's school, and true acquaintance interpersonal contact, as measured by self-reported number of cross-race close friendships, and intergroup attitudes and behaviors was determined. A comparison

between casual and true interpersonal contact was then made to determine which had the stronger relationship with intergroup attitude and behavior.

The study next examined if group identity salience moderated the relationship between interpersonal contact and intergroup relations. This tested the hypothesis that the synthesis of social identity and contact theory may best explain the relationship between interpersonal interactions and intergroup relationships. The proposed model that was tested is as follows:

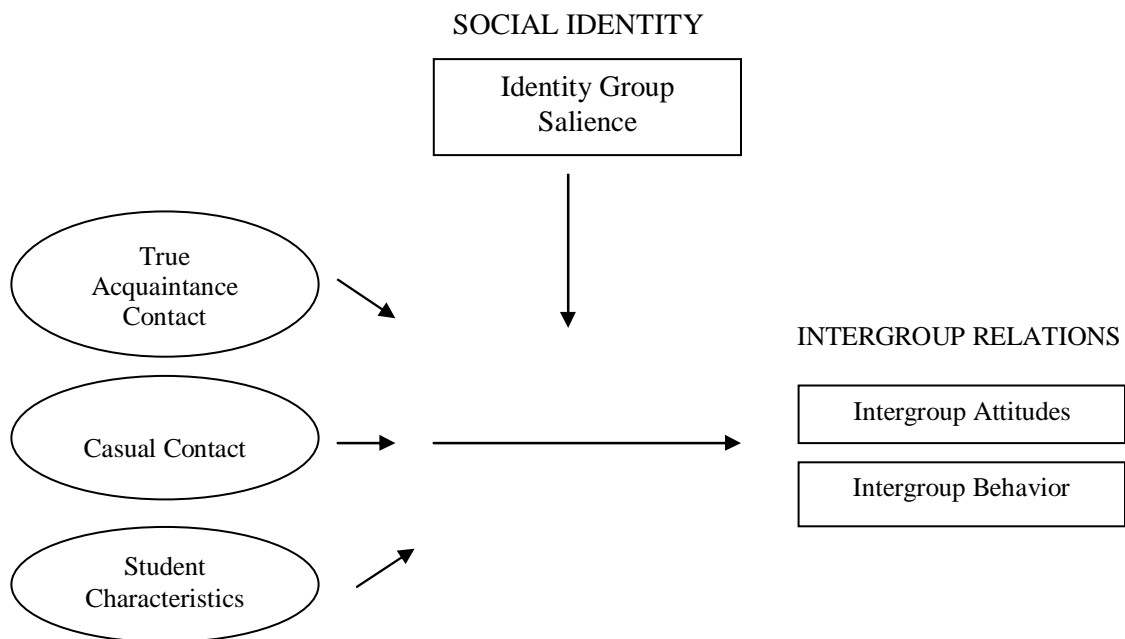


Figure 2. Proposed Model: Relationship Between Interpersonal Contact and Intergroup Relations

This study is organized around four sets of questions:

Question #1a. Does casual interpersonal contact affect intergroup attitudes?

Question #1b. Does casual interpersonal contact affect intergroup behavior?

Question #2a. Does true acquaintance contact affect intergroup attitudes?

Question #2b. Does true acquaintance contact affect intergroup behavior?

Question #3a. Which type of interpersonal contact - casual or true acquaintance - has the stronger effect on intergroup attitudes?

Question #3b. Which type of interpersonal contact - casual or true acquaintance - has the stronger effect on intergroup behavior?

Question #4a. Does identity group salience moderate the effect of true interpersonal contact on intergroup attitudes?

Question #4b. Does identity group salience moderate the effect of true interpersonal contact on intergroup behavior?

CHAPTER 3

METHOD

Participants

The participants in this study included 2202 sixth, seventh, and eighth grade students attending four public middle schools in a metropolitan city in the Southwestern portion of the United States. Participants were evenly divided between the sexes (50% girls, 50% boys) and among grades (34% sixth, 32% seventh, 34% eighth). The ethnic backgrounds of the students in this study included Hispanic (42%), White (34%), and African American (24%). The level of education of the students' mothers included elementary (5%), some high school (12%), high school (29%), some college (19%), and college graduate (35%).

The schools provided a variety of ethnic backgrounds including African American, White/Anglo, and Hispanic. Although information for Asian American and Native American students was collected for the original project, only the categories of Hispanic, African American, and White are included in the analysis for this study, as Asian American and Native American students comprised a negligible portion of the schools population. The selection of schools also provided a range of socioeconomic brackets.

One of the middle schools (designated hereafter School A) contained a majority Hispanic (71%), and minority African American (10%) and White (18%) student population. This school was located in a multiethnic, lower to middle class inner city neighborhood. Sixty percent of the participants reported receiving free or reduced lunch. The modal level of parental education for both parents was completion of high school. School district data indicate that 70% of the students at this school were economically disadvantaged.

Another of the schools (designated hereafter School B) contained a relatively equal number of Hispanic (35%) and White (44%) students, and minority number of African American (21%) students. This school was located in an inner city neighborhood that was racially balanced for White and Hispanic residents. Sixty-three percent of the participants reported that received on free or reduced lunch. The modal level of parental education for both parents was completion of high school. School district data indicate that 51% of the students were economically disadvantaged.

The third school (School C) contained a relatively equal number of African American (49%), and Hispanic students (33%), and a minority of White students (13%). This school was located in a historically African American neighborhood in which the Hispanic population was increasing to equal the number of African American residents. It was located in a lower to middle class inner city neighborhood.

School district data indicate that 79% of the students were economically disadvantaged.

The final school (School D) contained a majority of White (67%), and a minority African American (5%) and Hispanic (24%) students. This school was located in a predominately white middle to upper class neighborhood in the inner city. School district data indicate that 21% of the students were economically disadvantaged.

Procedure

Data for this study were derived from a survey of students included in the project "Barriers to Intergroup Relations Among Diverse Youth in Middle Schools" (see Carlson, Lein, Schott, & Uppal, 1998 for a full description of this study). Permission to conduct the original study was obtained from the school district administration, school principals, and the university's human subject review board. For all schools, the study used passive parental consent and active participant assent procedures for the collection of survey data. With the exception of school "D", all students in the school were invited to participate. School "D" included a representative sample of the students at the school. Letters were sent to the parents informing them of the study and requesting a returned form or a call to the school if they did not want their child to participate. Parental consent was denied for less than 1% of the students, and less than 3% of the students declined to participate. The

classroom teacher provided non-participating students alternative work. University graduate students administered the self-report survey designed "to assess the multiple ecological domains of self, school, peer relations, family, and neighborhood social systems" (Carlson & Lein, 1998). Students received a pencil and a folder with a university logo on it at the completion of the survey.

Measures

The variables that were used to explore the questions in this study consist of items and scales developed for the original self-report study conducted by Carlson and Lein (1998) and sub-scales from the Multigroup Ethnic Identity Measure (Phinney et al. 1992). The variables include: (a) Casual Interpersonal Contact, (b) True Interpersonal Contact, (c) Intergroup Attitudes, (d) Intergroup Behavior, (e) Identity Group Salience and (g) student background variables (grade level, gender, ethnicity, and socioeconomic status). See Appendix A for a list of items in each scale.

Casual Interpersonal Contact. The level of Casual Interpersonal Contact was assigned to each student by dividing the overall number of students at that school by the number of students within a student's ethnic group. This proportional measure of Casual Interpersonal Contact reflects the opportunity for cross race contact within a school. Information regarding school racial composition was obtained from the Texas Education Agency Website for the time frame corresponding to data collection. For

this variable, lower proportions indicate a higher incidence of cross race casual interpersonal contact.

True Acquaintance Interpersonal Contact. In research on contact theory, the number of cross-race friendships is used to theoretically reflect true acquaintance interpersonal contact. True Acquaintance Interpersonal Contact with individual members of other racial groups was measured by one general item with six follow-up questions assessing the number of close friends of another ethnicity. The item stem was "About how many close friends do you have who are...?". The question was repeated for each of the ethnic groups of Hispanic/Latino/Mexican American, Black/African American, White/Anglo. Response options included, "0 = none," "2-3 = a few," and "4-5 =many". The items were coded as "none" =0, "a few" =1, and "many" =2. The final score is a sum of the item responses for number of friends belonging to ethnic groups other than one's own. A high score indicates students with higher reported incidence of true acquaintance interpersonal contact.

Intergroup Attitude. Five items that assess a student's preference to increase the presence of other ethnic groups within the school were used as a measure of Intergroup Attitude. Specifically, students were asked to respond to the statement, "It would be nice to have more [ethnicity] students here." The item was repeated for the three ethnic options of African American, Hispanic, Asian, Native American and White. These items were answered on a 4-point Likert scale ranging from "very comfortable" to "very uncomfortable." The intergroup attitude score is a sum of

responses for ethnic groups other than one's own, so a scale included four items was created for African American students, Hispanic students, and White students. High scores indicate a positive attitude towards other groups. This scale was used in the original study with six items (which included additional ethnic groups) and demonstrated an internal consistency of .69 (Carlson & Lein, 1998). For this study, the five item scale yielded an internal consistency of .58. The lower internal consistency obtained in this study likely reflects the use of fewer items. The internal consistency of the scale for African American students was .51, for Hispanic students .51, and for White students .56.

Other-group Orientation. Students' attitudes toward intergroup behavior were measured using the Other-group Orientation subscale of Phinney's Multigroup Ethnic Identity Measure (Phinney, 1992). According to Phinney, this subscale is an assessment of disposition toward and interactions with ethnic groups other than one's own. This subscale served as a proxy for intergroup behavior in this study. The six items of this subscale include statements such as: "I often spend time with people from ethnic groups other than my own", "I am involved in activities with people from other ethnic groups" and "I enjoy being around people from ethnic groups other than my own". See appendix A for a complete list of items. Negative items were reversed to create the composite. These items were answered on a 4-point Likert scale ranging from strongly disagrees to strongly agree. High scores indicate students who

expressed favorable attitudes toward interaction with ethnic groups different from one's own.

This six-item scale showed a reliability of .71 for high school students, and .74 for college students (Phinney 1992). This scale was also used in the original study of intergroup relationships in two of the four schools from the present and had an internal consistency of alpha .69 (Carlson & Lein, 1998). For this study, scale indicated internal consistency was .52.

Identity Group Saliency. For this study, an Identity Group Saliency scale was developed by combining the 14-item Ethnic Identity scale of Phinney's Multigroup Ethnic Identity Measure as a gauge of group identity (Phinney, 1992) with the 3-item perceived discrimination scale developed for the original study (Carlson & Lein, 1998). Gurin, Miller and Gurin (1980), and White and Burke (1987) have conceptualized the importance of group identity as incorporating the level of identification with one's group and perceptions of injustice or group inequity. Similar to the present study, an adaptation of Phinney's Ethnic Identity scale was used by French, et al (2000) to create a measure of group identity termed Group Esteem.

Group identity consisted of 14 items rated on a 4-point scale from strongly disagree to strongly agree. Students responded to such statements as "I have spent time trying to find out more about my own ethnic group, such as history, traditions, and customs" and "I feel a strong attachment towards my own ethnic group". The

total score was derived by reversing negative items, summing across items, and obtaining the mean (Phinney, 1992).

Perception of group discrimination was measured with 3 items. These items were answered on a 4-point Likert scale ranging from strongly disagrees to strongly agree. Students were asked to respond to the statements; "I have been called names at school because of my racial/ethnic group", "I have seen negative words about my racial/ethnic group at school", and "I feel that others don't like people from my racial/ethnic group". The items assessed how students feel their race/ethnic group is perceived in the school environment. The perceived discrimination scale has been found, based on data administrations, to be a reliable measure yielding a factor of discrimination, with an internal consistency of .80 (Carlson & Lein, 1998).

Group identity and salience of discrimination were converted to z-scores and summed to construct the Identity Group Salience scale. Higher scores indicated stronger Identity Group Salience. The reliability of this scale was explored and yielded a good internal consistence where the alpha was .76.

Student Background. Student background variables include grade level, gender, ethnicity, and socioeconomic status. Grade level was determined by a question which asked, "what grade are you in?" Gender was determined by a question which asked "Are you a boy or a girl?" The items were coded as "boy" = 1 and "girl" = 2. Ethnicity was assessed by the student labeling him/herself on a given number of choices including: Hispanic/Latino/Mexican American; Black/African American;

White/Anglo; Asian/Asian American; Native American; Multiracial; or other. The items of interest were coded as Hispanic = 1, African American = 2 and White = 3. The present study used maternal education level as a proxy for socioeconomic status. This measure of SES is consistent with similar survey research (Lamborn, Mounts, Steinberg & Dornbusch, 1991). Students responded to a question which asked for the highest level of education attained by mother or guardian. Five response categories included elementary, some high school, high school, some college, and college graduate. The items were coded as elementary = 1, some high school = 2, high school = 3, some college = 4, and college graduate = 5.

Hypotheses and Plan of Analyses

The measures presented in the previous section were used to test the hypotheses in this research. Descriptive analyses were completed to test for population differences in grade, gender, ethnicity, and socioeconomic status for the dependent variables.

Following the preliminary analyses, the hypotheses were tested. Pearson Product Moment was used to calculate correlations among the predictor variables and examined for multicollinearity. The first hypothesis examined the relationship between Casual Interpersonal Contact and Intergroup Attitudes and Other-group Orientation. The second hypothesis examined the relationship between True Interpersonal Contact and Intergroup Attitudes and Other-group Orientation. These

two levels of interpersonal contact were compared to determine which has the stronger effect on intergroup attitudes and orientation. Finally, the hypothesis that Group Identity Salience moderates this relationship was tested. Multiple regression was used to test the effect of intergroup attitude and other-group orientation at different levels of salience. Analyses were conducted for each of the dependent variables intergroup attitudes and other-group orientation.

Hypothesis 1a. It was hypothesized that casual interpersonal contact would significantly contribute to the prediction of intergroup attitudes. As the number of students from other races within the school increases, intergroup attitudes will be more positive.

Hypothesis 1b. It was hypothesized that casual interpersonal contact would significantly contribute to the prediction of other-group orientation. As the number of students from other races within the school increases, other-group orientation will be more positive.

Plan of Analysis. Multiple regression was used to test the prediction of intergroup attitudes and other-group orientation from causal interpersonal contact. In the analysis of hypothesis 1a., intergroup attitude was regressed on those population variables found to be significant for intergroup attitude. Casual interpersonal contact was next added to the regression. In the analysis of hypothesis 1b., other-group orientation was regressed on those population variables found to be significant for

other-group orientation. Casual interpersonal contact was next added to the regression.

Hypothesis 2a. It was hypothesized that as number of friends from other groups increases, intergroup attitudes will become more positive.

Hypothesis 2b. It was hypothesized that as number of friends from other groups increases, other-group orientation will become more positive.

Plan of Analysis. Multiple regression was used to test the prediction of intergroup attitudes and other-group orientation from true acquaintance interpersonal contact. In the analysis of hypothesis 2a., intergroup attitude was regressed on those population variables found to be significant for intergroup attitude. True acquaintance interpersonal contact was next added to the regression. In the analysis of hypothesis 2b., other-group orientation was regressed on those population variables found to be significant for other-group orientation. True acquaintance interpersonal contact was next added to the regression.

Hypothesis 3a. It was hypothesized that true acquaintance interpersonal contact would be more predictive of intergroup attitudes than casual interpersonal contact.

Hypothesis 3b. It was hypothesized that true acquaintance interpersonal contact would be more predictive of intergroup behaviors than casual interpersonal contact.

Plan of Analysis. Multiple regression was used to test the prediction of intergroup attitudes and other-group orientation when both casual and true acquaintance interpersonal contact are included in the model. In the analysis of hypothesis 3a., intergroup attitude will be regressed on those population variables found to be significant in previous regressions. Casual interpersonal contact and true acquaintance contact was next added to the regression; standardized regression coefficients were compared to determine which variable has the stronger effect on attitudes. In the analysis of hypothesis 3b., other-group orientation was regressed on those population variables found to be significant for other-group orientation. Casual interpersonal contact and true acquaintance contact were next added to the regression; standardized regression coefficients were compared to determine which variable has the stronger effect on other-group orientation.

Hypothesis 4a. It was hypothesized that Identity Group Salience would moderate the relationship between interpersonal contact and intergroup attitudes. As identity group salience increases, the relationship will weaken.

Hypothesis 4b. It was hypothesized that Identity Group Salience would moderate the relationship between interpersonal contact and other-group orientation. As identity group salience increases, the relationship will weaken.

Plan of Analysis. The procedure outlined in Baron and Kenny (1986) for testing moderators was used. In the analysis of hypothesis 4a., intergroup attitude was regressed on those variables found to be significant for intergroup attitude in previous

regressions. Causal interpersonal contact, true acquaintance interpersonal contact, and group identity salience were next added to the regression equation. The interaction term for identity salience and true acquaintance interpersonal contact were next added. Moderator effects were indicated by the significant effect of the interaction while controlling for true acquaintance and casual interpersonal contact.

In the analysis of hypothesis 4b., other-group orientation was regressed on those population variables found to be significant for other-group orientation. The dependent variable other-group orientation was next regressed on true acquaintance interpersonal contact, causal interpersonal contact, and group identity salience. The interaction term for identity salience and true acquaintance interpersonal contact will be next added. Moderator effects were indicated by the significant effect of the interaction while controlling for true acquaintance and casual interpersonal contact.

CHAPTER 4

RESULTS

This study addressed four sets of questions regarding intergroup relationships among middle school students. These questions were: does casual interpersonal contact affect intergroup attitudes and other-group orientation; does true acquaintance contact affect intergroup attitudes and other-group orientation; which type of interpersonal contact - casual or true - has the stronger effect on intergroup attitudes and other-group orientation; and does identity group salience moderate the effect of true interpersonal contact on intergroup attitudes and other-group orientation.

An alpha level of .05 was used for all statistical tests. A list of the key variables, their description and the meaning of high and low scores are listed for reference in Table 1.

Table 1

Key Variables in the Study

Variables	Description	Score Meaning
Casual Interpersonal Contact	Proportion: # in group/ school population	↓ Proportion = ↑ Casual Contact _a
True Acquaintance Contact	# of cross-race friends	↑ Score = ↑ True contact
Intergroup Attitude	3 items: It would be nice to have more _____ students.	↑ Score = more positive intergroup attitude
Other-group Orientation	Proxy for intergroup behavior	↑ Score = ↑ Intergroup behavior
Identity Group Salience	Ethnic identity + Perceived discrimination	↑ Score = ↑ Identity group salience

Note. ^aFor example, a proportion of .13 indicates a higher level of Casual Interpersonal contact than .67.

Preliminary Analyses

The level of Casual Interpersonal Contact was calculated for and assigned to each student. The proportional value assigned to Hispanic students at school A = .71, Hispanic students at school B = .35, Hispanic students at school C = .49, and Hispanic students at school D = .24. The proportional value for African American students at school A = .10, African American students at school B = .44, African American students at school C = .33, and African American students at school D = .05. The proportional value for White students at school A = .18, White students at school B = .21, White students at school C = .13, and White students at school D = .67. For this variable, lower proportions indicate a higher incidence of cross race casual interpersonal contact.

Means, standard deviations, and ranges for the variables casual and true interpersonal contact, intergroup attitudes and other-group orientation, and identity group salience were calculated and are shown in Table 2. In Tables 3, 4, 5, and 6, sample differences based on grade, ethnicity, gender, and SES were calculated for each of the dependent variables. Significant differences were considered in subsequent analyses.

Table 3 shows differences between intergroup attitude and other-group orientation based on school grade level. No significant differences were found among sixth, seventh and eighth grades for either intergroup attitude ($F[4, 1965] = 2.32$,

Table 2

Means and Standard Deviations of the Variables

<u>Variables</u>	<u>n</u>	<u>M</u>	<u>SD</u>	<u>Range</u>
Intergroup Attitude	1978	6.06	1.65	2 - 10
Other-group Orientation	1797	17.52	3.43	6 - 58
Casual Interpersonal Contact	2019	.43	.21	.05 - .71
True Interpersonal Contact	1960	1.95	1.03	0 - 4
Identity Group Salience	1933	.01	1.47	-5.2 - 4.3

Note. Variations in the sample size reflect missing data.

Table 3

Means, Standard Deviations, and F Scores of the Dependent Variables by Grade

Variables		Sixth (<u>n</u> =667)	Seventh (<u>n</u> =614)	Eighth (<u>n</u> =672)	F
Intergroup Attitude	<u>M</u>	6.03	5.94	6.20	2.32
	<u>SD</u>	1.75	1.66	1.54	
		(<u>n</u> =589)	(<u>n</u> =558)	(<u>n</u> =632)	
Other-group Orientation	<u>M</u>	17.44	17.56	18.40	.81
	<u>SD</u>	3.44	3.74	3.11	

Note. Variations in the sample size reflect missing data.

$p = .055$) or other-group orientation ($F[4, 1789] = .40, p = .81$). Grade level was not considered in subsequent analyses.

Table 4 shows differences in intergroup attitude and other-group orientation based on ethnicity. Significant differences were found between White and Hispanic students for intergroup attitude ($F[2, 1975] = 9.78, p < .001$). Hispanic students expressed significantly more positive attitudes towards being among other groups than White students. Significant differences were found between White and Hispanic students, and between White and African American students for other-group orientation ($F[2, 1796] = 13.51, p < .001$). Both Black and Hispanic students reported seeking and actually engaging in more cross-race interaction than White students. Subsequently, ethnicity was considered in the analyses of all the hypotheses.

Table 5 shows differences based on gender. Significant differences were found between boys and girls for both intergroup attitude ($F[1, 1967] = 5.95, p < .05$) and other-group orientation ($F[4, 1793] = 28.17, p < .001$). Girls reported a more positive attitude towards being among different ethnic groups and seeking out and engaging in cross ethnic interaction. Subsequently, gender was considered in the analyses of all the hypotheses.

Table 6 shows differences based on socioeconomic status as measured by mother's level of education. Significant differences for the variable intergroup attitude were found between students whose mothers attended some high school and those students whose mothers were college graduates. Significant differences for the

Table 4

Means, Standard Deviations, and F Scores of the Dependent Variables by

Ethnicity

Variables		Hispanic (n=832)	AA (n=474)	White (n=672)	F
Intergroup Attitude	<u>M</u>	6.21 _a	6.11	5.83 _a	9.78***
	<u>SD</u>	1.60	1.88	1.53	
		(n=753)	(n=420)	(n=624)	
Other-group Orientation	<u>M</u>	17.65 _a	18.06 _b	16.99 _{a,b}	13.51***
	<u>SD</u>	.66	.66	.75	

Note. Variations in the sample size reflect missing data.

AA - Denotes African American.

_aDenotes significant differences between Hispanic and White students

_bDenotes significant differences between African American and White students

*p<.05 **p<.01 ***p<.001

Table 5

Means, Standard Deviations, and F Scores of the Dependent Variables by

Gender

Variables		Female (<u>n</u> =988)	Male (<u>n</u> =981)	F
Intergroup Attitude	<u>M</u>	6.15	5.96	5.95*
	<u>SD</u>	1.62	1.68	
		(<u>n</u> =901)	(<u>n</u> =894)	F
Other-group Orientation	<u>M</u>	17.94	17.08	28.17***
	<u>SD</u>	3.41	3.39	

Note. Variations in the sample size reflect missing data.

*p<.05 **p<.01 ***p<.001

Table 6

Means, Standard Deviations, and F Scores of the Dependent Variables by SES

Intergroup Variable		Elementary	Some High	High school	some college	college grad	F
		(n=89)	(n=209)	(n=530)	(n=343)	(n=645)	
Attitude	<u>M</u>	6.02	6.28 _a	6.23 _b	6.00	5.91 _{a,b}	3.87***
	<u>SD</u>	1.86	1.69	1.64	1.57	1.63	
		(n=75)	(n=196)	(n=490)	(n=309)	(n=596)	
Other-group Orientation	<u>M</u>	17.28	17.76	17.76	17.60	17.31	1.49
	<u>SD</u>	3.24	3.03	3.27	4.08	3.33	

Note. Variations in the sample size reflect missing data.

_aDenotes significant differences between Some High School and College Graduate

_bDenotes significant differences between High School and College Graduates

*p<.05 **p<.01 ***p<.001

variable intergroup attitude were also found between those students whose mothers finished high school and those students whose mothers were college graduates ($F[4, 1811] = 3.87, p < .01$). Those students whose mothers attended some high school or were high school graduates reported a more positive attitude towards being among different ethnic groups than those students whose mothers had graduated from college. Based on socioeconomic status, there were no differences in intergroup attitude found in this study ($F[4, 1661] = 1.49, p = .20$). Subsequently, socioeconomic status was considered in the analyses of the hypotheses regarding intergroup attitude.

In summary, preliminary descriptive analyses found ethnic, gender, and SES differences for the dependent variable intergroup attitude as well as ethnicity and gender differences for the dependent variable other-group orientation. Subsequently, ethnicity, gender, and SES were included in the analysis for Hypotheses 1a, 2a, 3a, and 4a. Ethnicity and gender were included in the analysis for Hypotheses 1b, 2b, 3b, and 4b.

Correlations among the variables were calculated and examined for multicollinearity. The results are shown in Table 7. Expectedly, SES and ethnicity were moderately correlated. Although other variables showed significant correlation, these correlations were not strong enough to suggest that multicollinearity presents a problem for this study (Williams, 1986).

Table 7

Intercorrelations Among Variables

Variable	1	2	3	4	5	6	7
1. Sex	--						
2. Ethnicity	-.02	--					
3. SES	.06*	.54**	--				
4. Casual Contact	.00	-.37**	-.17**	--			
5. True Contact	-.03	-.11**	-.11**	-.07**	--		
6. Attitude	-.09**	-.08**	-.06*	-.04	-.17**	--	
7. Behavior	-.13**	-.08**	-.04	-.16**	.21**	.16**	--

N=1734

* $p \leq 05$, ** $p \leq 01$

Hypotheses Testing

1a. Does casual interpersonal contact significantly contribute to the prediction of intergroup attitudes?

It was hypothesized that casual interpersonal contact would significantly contribute to the prediction of intergroup attitudes. It was further predicted that as the number of students from outside one's racial group within the school increases, intergroup attitudes would be more positive among middle school students. This hypothesis was supported. After controlling for gender, ethnicity, and socioeconomic status, the predictor variable casual interpersonal contact demonstrated a significant relationship with intergroup attitude and accounted for .6 % of the variance $F(4, 1801) = 11.67, p < .001$ (see Table 8).

1b. Does casual interpersonal contact significantly contribute to the prediction of other-group orientation?

It was hypothesized that casual interpersonal contact would significantly contribute to the prediction of other-group orientation. It was further predicted that as the number of students from within one's racial group within a school increased, other-group orientation would be more positive. Lower proportions of ones own group indicated a higher incident of casual interpersonal contact. This hypothesis was supported. After controlling for gender and ethnicity, casual interpersonal contact demonstrated a relationship with other-group orientation and accounted for 5% of the

Table 8

Multiple Regression Analysis for Casual Contact Predicting Intergroup Attitude

Variable	<u>b</u>	<u>SE B</u>	<u>Beta</u>	<u>t</u>
Block1				
Gender	-.57	.13	-.10	-4.27***
Ethnicity	-.32	.09	-.10	-3.48**
SES	-.01	.07	-.01	-.10
R ² = .019				
Block2				
Gender	-.58	.13	-.10	-4.30***
Ethnicity	-.42	.10	-.13	-4.39***
SES	-.01	.07	-.01	.20
Casual Contact _a	-.50	.35	-.08	-3.37**

R² = .025 Change in R² = 0.006

_aCasual Contact = Casual Interpersonal Contact

*p<.05 **p<.01 ***p<.001

Table 9

Multiple Regression Analysis for Casual Contact Predicting Other-group Orientation

Variable	<u>b</u>	<u>SE B</u>	<u>Beta</u>	<u>t</u>
Block 1				
Gender	-.86	.16	-.13	-5.38***
Ethnicity	-.32	.09	-.08	-3.51***
R ² = .02				
Block 2				
Gender	-.86	.16	-.13	-5.38***
Ethnicity	-.63	.01	-.16	-6.54***
Casual Contact _a	-3.64	.40	-.22	-9.00***
R ² = .07 Change in R ² = .05				

^aCasual Contact is the variable Casual Interpersonal Contact
 ***p<.001

2a. Does true acquaintance contact significantly contribute to the prediction of intergroup attitudes?

It was hypothesized that true interpersonal contact would significantly contribute to the prediction of intergroup attitudes. It was further predicted that as the number of close friends from outside one's racial group increases, intergroup attitudes would be more positive. This hypothesis was supported. True interpersonal contact was a significant predictor of intergroup attitudes, $F(4, 1766) = 20.28$, $p < .001$ (See Table 10). The results of the regression indicated that, after controlling for gender, ethnicity, and socioeconomic status, the predictor variable, true interpersonal contact, demonstrated a relationship with intergroup attitude and accounted for 2.4% of the variance.

2b. Does true acquaintance contact significantly contribute to the prediction of other-group orientation?

It was hypothesized that true interpersonal contact would significantly contribute to the prediction of other-group orientation. It was further predicted that as the number of close friends from outside one's racial group increased, other-group orientation would be more positive. This hypothesis was supported. True interpersonal contact was a significant predictor of other-group orientation, $t(3, 1761) = 8.17$, $p < .001$ (See Table 11). After controlling for gender and ethnicity, the results of the regression indicated that the predictor variable true interpersonal contact demonstrated a relationship with other-group orientation and accounted for 4% of the variance.

Table 10

Multiple Regression Analysis True Contact for Predicting Intergroup Attitude

Variable	<u>b</u>	<u>SE B</u>	<u>Beta</u>	<u>t</u>
Block 1				
Gender	-.59	.14	-.10	-4.35***
Ethnicity	-.33	.09	-.10	-4.35***
SES	.01	.07	.01	- 3.53***
R ² = .02				
Block 2				
Gender	-.57	.13	-.10	-4.20***
Ethnicity	-.28	.09	-.08	-3.02**
SES	.03	.07	.01	.49
True Contact _a	.44	.07	.16	6.66***
R ² = .044 Change in R ² = .024				

^aTrue Contact = True Acquaintance Interpersonal Contact

*p<.05 **p<.01 ***p<.001

Table 11

Multiple Regression Analysis for True Contact Predicting Other-group Orientation

Variable	<u>B</u>	<u>SE B</u>	<u>Beta</u>	<u>T</u>
Block 1				
Gender	-.84	.16	-.12	-5.20***
Ethnicity	-.33	.10	-.08	-3.56***
R ² = .02				
Block 2				
Gender	-.78	.16	-.11	-4.94***
Ethnicity	-.23	.10	-.06	-2.55**
True Contact _a	.65	.08	.20	8.17***
R ² = .06 Change in R ² = .04				

^aTrue Contact is the variable True Acquaintance Interpersonal Contact

p<.01 *p<.001

3a. Which type of interpersonal contact - casual or true acquaintance - has the stronger effect on intergroup attitudes?

It was hypothesized that true acquaintance interpersonal contact would be more predictive of intergroup attitudes than casual interpersonal contact. This hypothesis was supported. Although the overall model was significant, $F(5, 1762) = 17.58$, $p < .001$, comparison of regression coefficients from the final regression equation revealed that true interpersonal contact was a stronger predictor of intergroup attitude (Beta = .16) than casual interpersonal contact (Beta=-.09). In addition, casual interpersonal contact was not significant when true interpersonal contact was taken into account. See Table 12.

3b. Which type of interpersonal contact - casual or true acquaintance - has the stronger effect on other-group orientation?

It was hypothesized that true acquaintance interpersonal contact would be more predictive of more positive other-group orientation than casual interpersonal contact. This hypothesis was not supported. The overall model was significant, $F(4, 1761) = 7.55$, $p < .001$, and the comparison of regression coefficients revealed that casual interpersonal contact (Beta = -.20) was a stronger predictor of other-group orientation than true interpersonal contact (Beta=.17). See Table 13.

Table 12

Multiple Regression Analysis for Predicting Intergroup Attitude

Variable	<u>B</u>	<u>SE B</u>	<u>Beta</u>	<u>T</u>
Block 1				
Gender	-.59	.08	-.06	-4.35***
Ethnicity	-.32	.05	-.11	-3.48***
SES	.02	.04	-.00	-.22
R ² = .02				
Block 2				
Gender	-.59	.31	-.10	-4.37***
Ethnicity	-.43	.14	-.13	-4.39**
SES	.02	.10	.01	.32
Casual Contact	-1.20	.35	-.09	-3.40**
R ² = .026 Change in R ² = .006				
Block 3				
Gender	-.57	.36	-.10	-4.22***
Ethnicity	-.36	.13	-.11	-3.65**
SES	.04	.07	.02	.58
Casual Contact _a	-.91	.35	-.07	-2.60**
True Contact _b	.42	.07	.15	6.32***
R ² = .048 Change in R ² = .022				

_aCasual Contact = Casual Interpersonal Contact

_bTrue Contact = True Acquaintance Interpersonal Contact

*p<.05 **p<.01 ***p<.001

Table 13

Multiple Regression Analysis for Predicting Other-group Orientation

Variable	<u>B</u>	<u>SE B</u>	<u>Beta</u>	<u>T</u>
Block 1				
Gender	-.84	.16	-.12	-5.20***
Ethnicity	-.33	.09	-.08	-3.56***
R ² = .02				
Block 2				
Gender	-.84	.16	-.12	-5.33***
Ethnicity	-.63	.10	-.16	-6.55***
Casual Contact _a	-3.66	.41	-.22	-8.97***
R ² = .07 Change in R ² = .05				
Block 3				
Gender	-.79	.16	-.12	-5.08***
Ethnicity	-.52	.10	-.13	-5.35***
Casual Contact _a	-3.28	.41	-.20	-8.09***
True Contact _b	.58	.08	.17	7.55***
R ² = .09 Change in R ² = .02				

^aCasual Contact = Casual Interpersonal Contact

^bTrue Contact = True Acquaintance Interpersonal Contact

***p<.001

4a. Does identity group salience moderate the effect of true interpersonal contact on intergroup attitudes?

It was hypothesized that identity group salience would moderate the relationship between interpersonal contact and intergroup attitudes. It was predicted that as identity group salience increased, the relationship would weaken between interpersonal contact and intergroup attitudes. This hypothesis was not supported. The interaction term was not significant (see Table 14). These results suggest that increased social identity in adverse conditions does not affect the relationship between interpersonal contact and intergroup attitude.

4b. Does identity group salience moderate the effect of true interpersonal contact on other-group orientation?

It was hypothesized that identity group salience would moderate the relationship between interpersonal contact and other-group orientation. It was predicted that as identity group salience increases, the relationship would weaken between interpersonal contact and other-group orientation. This hypothesis was not supported. The interaction term was not significant (see Table 15). Although this hypothesis was not supported, main effects revealed that identity group salience was a significant predictor of other-group orientation, $t(6, 1761) = 7.55$, $p < .001$. As identity group salience increased, other-group orientation became more positive.

Table 14

Multiple Regression Analysis for Predicting Moderator Effects on Intergroup Attitude

Variable	<u>B</u>	<u>SE B</u>	<u>Beta</u>	<u>T</u>
Block 1				
Gender	-.22	.08	-.07	-2.73**
Ethnicity	-.23	.05	-.12	-4.21***
SES	-5.65 ⁻³	.04	-.00	-.14
R ² = .02				
Block 2				
Gender	-.20	.08	-.06	-2.50*
Ethnicity	-.21	.06	-.11	-3.67***
SES	1.24 ⁻²	.04	.01	.32
Casual Contact _a	-.25	.20	-.03	-1.21
True Contact _b	.33	.04	.21	8.67
Group Salience	3.42 ⁻²	.03	.03	1.27
R ² = .07 Change in R ² = .05				
Block 3				
Gender	-.20	.08	-.06	-2.50**
Ethnicity	-.21	.06	-.11	-3.67***
SES	1.28 ⁻²	.04	.01	.33
Casual Contact _a	-.25	.20	-.03	-1.21
True Contact _b	.33	.04	.21	8.68***
Group Salience	.00	.06	.05	1.01
True Contact _a x	00	.03	-.02	-.45
Group Salience				
R ² = .07 Change in R ² = 0				

^aCasual Contact = Casual Interpersonal Contact, ^bTrue Contact = True Acquaintance Interpersonal Contact * p<.05 **p<.01 ***p<.001

Table 15

Multiple Regression Analysis for Predicting Moderator Effects on Other-group Orientation

Variable	<u>B</u>	<u>SE B</u>	<u>Beta</u>	<u>T</u>
Block 1				
Gender	-.84	.16	-.12	-5.20***
Ethnicity	-.33	.09	-.08	-3.56***
R ² = .02				
Block 2				
Gender	-.76	.15	-.11	-5.16***
Ethnicity	-.40	.09	-.10	-4.42***
Casual contact _a	-2.48	.39	-.15	-6.42***
True contact _b	.53	.07	.16	7.36***
Group Salience	.77	.05	.32	14.94***
R ² = .09 Change in R ² = .07				
Block 3				
Gender	-.76	.15	-.11	-5.17***
Ethnicity	-.40	.09	-.10	-4.42***
Casual Contact _a	-2.48	.40	-.15	-6.20***
True Contact _b	.54	.08	.16	7.22***
Group Salience	.84	.11	.35	7.55***
True Contact _b x	.00	.05	-.05	-.98
Group Salience				
R ² = .20 Change in R ² = .11				

^aCasual Contact is the variable Casual Interpersonal Contact

^bTrue Contact is the variable True Acquaintance Interpersonal Contact

p<.01 *p<.001

Multiple regression was subsequently conducted to determine the contribution of identity group salience to the prediction of out-group orientation. After controlling for gender, ethnicity, casual, and true interpersonal contact, the predictor variable group identity salience demonstrated a relationship with other-group orientation that accounted for 11% of the variance (see Table 16).

Table 16

Multiple Regression Analysis for Predicting Out-group Orientation from Identity Group Saliency

Variable	<u>B</u>	<u>SE B</u>	<u>Beta</u>	<u>T</u>
Block 1				
Gender	-.84	.16	-.12	-5.20***
Ethnicity	-.33	.09	-.08	-3.56***
R ² = .02				
Block 2				
Gender	-.79	.16	-.12	-5.08***
Ethnicity	-.52	.10	-.13	-5.08***
Casual contact _a	-3.28	.41	-.20	-8.09***
True contact _b	.58	.08	.17	7.55***
R ² = .09 Change in R ² = .07				
Block 3				
Gender	-.76	.15	-.11	-5.16***
Ethnicity	-.40	.09	-.10	-4.42***
Casual Contact _a	-2.48	.39	-.15	-6.42***
True Contact _b	.53	.07	.16	7.36***
Group Saliency	.77	.05	.32	14.96***
R ² = .20 Change in R ² = .11				

_aCasual Contact is the variable Casual Interpersonal Contact

_bTrue Contact is the variable True Acquaintance Interpersonal Contact

p<.01 *p<.001

Exploratory Analyses

School differences were not explored in previous hypotheses. The following analyses were designed determine if there were significant population differences based on school. Sample differences based on school were calculated for each of the dependent variables. Significant differences were considered in additional analyses.

Table 17 shows differences based on school. Significant differences were found between school B and School C for intergroup attitude ($F[3, 1968] = 3.67, p < .05$). Significant differences were found between school D and all other schools (A,B, and C) for other-group orientation ($F[3, 1803] = 46.80, p < .001$). School B reported more positive attitude towards being among different ethnic groups than school C, and school D reported significantly more negative attitudes engaging in cross ethnic interaction. School was considered in the subsequent analyses of hypotheses 2a and 2b.

Table 17

Means, Standard Deviations, and F Scores of the Dependent Variables by School

Variables		School A (<u>n</u> =533)	School B (<u>n</u> =601)	School C (<u>n</u> =529)	School D (<u>n</u> =306)	F
Intergroup Attitude	<u>M</u>	12.45 _a	12.51	12.06 _a	12.03	3.67*
	<u>SD</u>	2.72	2.38	3.10	3.63	
		(<u>n</u> =487)	(<u>n</u> =567)	(<u>n</u> =457)	(<u>n</u> =293)	
Other-group Orientation	<u>M</u>	17.87 _b	17.94 _c	17.98 _d	17.52 _{b,c,d}	46.80***
	<u>SD</u>	3.26	.66	3.16	3.43	

Note. Variations in the sample size reflect missing data.

_aDenotes significant differences between School B and School C

_bDenotes significant differences between School A and School D

_cDenotes significant differences between School B and School D

_dDenotes significant differences between School C and School D

* $p < .05$ *** $p < .001$

2a. Does true acquaintance contact significantly contribute to the prediction of intergroup attitudes?

It was hypothesized that true interpersonal contact would significantly contribute to the prediction of intergroup attitudes. It was further predicted that as the number of close friends from outside one's racial group increases, intergroup attitudes would be more positive. This hypothesis was supported. True interpersonal contact was a significant predictor of intergroup attitudes, $F(4, 1762) = 9.68$, $p < .001$ (See Table 18). The results of the regression indicated that, after controlling for gender, ethnicity, socioeconomic status, *and* school, the predictor variable, true interpersonal contact, demonstrated a relationship with intergroup attitude and accounted for 2.3% of the variance.

2b. Does true acquaintance contact significantly contribute to the prediction of other-group orientation?

It was hypothesized that true interpersonal contact would significantly contribute to the prediction of other-group orientation. It was further predicted that as the number of close friends from outside one's racial group increased, other-group orientation would be more positive. This hypothesis was supported. True interpersonal contact was a significant predictor of other-group orientation, $t(4, 1768) = 38.55$, $p < .001$ (See Table 19). After controlling for gender, ethnicity, *and* school, the results of the regression indicated that the predictor variable true interpersonal contact demonstrated a relationship with other-group orientation and accounted for 3.2% of the variance.

Table 18

Multiple Regression Analysis True Contact for Predicting Intergroup Attitude
(with School Included)

Variable	<u>b</u>	<u>SE B</u>	<u>Beta</u>	<u>t</u>
Block 1				
Gender	-.58	.14	-.10	-4.28***
Ethnicity	-.26	.10	-.08	-2.69**
SES	.02	.07	.01	.22
School	-.13	.07	.05	-1.86
R ² = .022				
Block 2				
Gender	-.56	.13	-.10	-4.20***
Ethnicity	-.24	.09	-.08	-3.02**
SES	.03	.07	.01	.49
School	-.09	.07	-.03	-1.21
True Contact _a	.43	.07	.16	6.54***
R ² = .045 Change in R ² = .023				

^aTrue Contact = True Acquaintance Interpersonal Contact
 *p<.05 **p<.01 ***p<.001

Table 19

Multiple Regression Analysis for True Contact Predicting Other-group Orientation (with School Included)

Variable	<u>B</u>	<u>SE B</u>	<u>Beta</u>	<u>T</u>
Block 1				
Gender	-.81	.16	-.12	-5.11***
Ethnicity	-.05	.10	-.01	-.53
School	-.58	.08	-.18	-6.91***
R ² = .048				
Block 2				
Gender	-.77	.16	-.11	-4.88***
Ethnicity	.01	.10	-.02 ¹	.06
School	-.52	.08	-.16	-6.27***
True Contact _a	.61	.08	.18	7.92***
R ² = .08 Change in R ² = .032				

^aTrue Contact = True Acquaintance Interpersonal Contact

p<.01 *p<.001

CHAPTER 5

DISCUSSION

The general purpose of this study was to explore the relationship between interpersonal contact and intergroup relations. This exploration was based on Brewer and Miller's model that theorized the relationship between interpersonal interaction and intergroup attitudes and behavior was moderated by the salience of identity. The first step towards exploring this revised model was to examine the hypotheses derived from contact theory. These hypotheses suggested that increased cross-race interpersonal contact would positively influence the intergroup attitudes and behavior among adolescent middle school students. Contact theory would suggest that the generalization from the interpersonal to the intergroup level is likely (Allport 1954). This study attempted to address this question in a different manner than past literature by exploring which type of cross race interpersonal contact would most strongly related to intergroup attitudes and behavior. Based on the ideas of Forbes (1997) and Carter et al. (1977), interpersonal contact was conceptually divided into two types: casual and true acquaintance. Measured by racial proportions in the school population, casual interpersonal contact increased as the number of student's outside one's group increased within a school. The number of cross-race friends a student reported was used to measure true interpersonal contact. Other-group orientation, which was used as a proxy for intergroup behavior, and attitude toward other groups,

were used to measure intergroup relations. Ethnicity, SES, grade and gender were also considered because of the contribution they make to intergroup relations.

The second step proposed to explore Brewer and Miller's model of the connection between interpersonal contact and intergroup relations was to investigate whether this relationship was moderated by a student's sense of belonging to and sensitivity about the racial group of which he or she is a member. Identity group salience was defined as how strongly an individual identifies with the group combined with the sense that the group is not accepted in the environment. Social identity theory would suggest that salience of the group identity would influence the strength of the relationship between interpersonal contact and intergroup relations (Thompson 1999, Verkuyten 2002, Dovidio et al. 2003). Hypothetically, if identity group salience is strong, then cross-race interpersonal contact would not be enough to overcome the need to secure positive group identity. Securing positive group identity would consist of harboring negative attitudes and demonstrating negative behaviors toward outside groups. A weak identity group salience, however, would facilitate increased cross-race contact positively influencing intergroup relations. Although the potential for group identity salience to influence the relationship between interpersonal contact and intergroup relations is suggested by Brewer and Miller's model and in other social identity literature, few studies have been conducted to examine the moderating effect of this variable.

Summary of Results

The results of this study yielded four main conclusions. The first three of these conclusions were based on the proposed hypotheses. The first main conclusion involved the testing of the intergroup-interpersonal relationship suggested by contact theory. This study supported the contact theory's position that interpersonal interactions influence intergroup relations. Results indicated that increased exposure to members of other groups on both superficial and in-depth levels is predictive of reported positive behaviors and attitudes towards other groups.

The second main conclusion was based on the assumption that increased cross-race true contact would be more predictive of intergroup attitudes and behavior than merely being among different groups would be. This study found that casual interpersonal and true interpersonal contact serve equally important, albeit different, functions for intergroup relations. True contact was more predictive of intergroup attitude while casual contact was more predictive of student's reported intergroup behavior.

The third main conclusion involved the primary variable of interest, identity group salience. Results did not support the premise of social identity theory that the relationship between interpersonal contact and intergroup relations is moderated by increased salience of and identification with the group to which an individual belongs. However, identity group salience does appear to play an important role in

intergroup relations: it was more strongly associated with student's reports of positive behavior towards other groups than both casual and true interpersonal contact.

The final conclusion involves the syntheses of all the findings based on the hypotheses. The factors it takes to influence intergroup behavior and intergroup attitude are subtly different, but create a pattern that allows us to think about how we may structure a school environment to support positive cross-race interactions.

Interpersonal Interactions and Intergroup Relations

The findings regarding close friendships are consistent with literature regarding the influence of friendships on intergroup relations, as well as the assertions of social scientist in this field (Dutton et al. 1998; Pettigrew, 1998). In particular, Dutton et al. (1998) found that true acquaintance significantly and positively affects intergroup relations among students. It appears that close friendships promote an emotional investment that allows attitudes and reported behavior to transcend superficial differences, as was suggested by Levinger's theory of attraction (Cater et al. 1977).

Although the literature regarding whether close friendships influences intergroup relations consistently reports that it does, literature on the influence of casual contact on intergroup attitude and behavior is not always as conclusive. The positive effects, particularly on intergroup attitude, are often contraindicated. The past inconsistency as to whether increased diversity leads to positive intergroup attitudes

and behavior is particularly present in the many studies of racial proportions in integrated school environments (Schofield, 1995a). In fact, although significant, the association between casual interpersonal contact and intergroup attitude in this study was relatively weak. Casual contact accounted for a small portion (.03%) of the variance of intergroup attitudes while variances of the other variables considered in this study account for substantially more (ranging from 4% to 11%).

Although the casual interpersonal contact and intergroup relationship association is inconsistently supported in contact theory literature, conclusions of past research suggested that unbalanced ethnic populations within a school influences the behavior of students in a variety of ways, and may be responsible for the divergence in findings. In some cases heterogeneity in the school ethnic population resulted in increased and positive intergroup relationships, but other cases students engaged in less cross race interaction in heterogeneous environments (Patchen, 1982; Davis et al., 1995; Longshore, 1982a; Moody, 2001). In particular, Moody (2001) found that in moderately heterogeneous environments intergroup behavior improved, but in the most highly heterogeneous environments intergroup behavior declined. Exploratory analyses which compared schools found that student who attended school D, which demonstrated relatively less heterogeneity, were significantly more likely to be open to intergroup behavior. The positive influence of casual interpersonal contact on attitude and reported behavior in this study could have been so because many of the racial proportions considered were moderately heterogeneous, consistent with those

proposed by Moody to be supportive of positive intergroup relations. Multiethnic proportions in this study ranged from 5% to 71%, with only one school maintaining a relatively equal number of Hispanic, African American, and White students. Future research may benefit from more closely examining more specific proportions of casual contact in order to clarify contradicting results.

Although casual contact accounted for less of the variance in intergroup attitudes than true contact, results of this study indicate that casual contact is as important as true contact when considering the impact of contact on global intergroup relations. Past literature suggests, and this study hypothesized, that true contact would be most important to both intergroup attitude and behavior. Nonetheless, results indicate that merely being in a diverse environment appears to be more predictive of whether students reported positive attitudes toward interacting with other groups. This is consistent with Schofield's intuition that diverse environments are bound to affect the intergroup behavior of individuals. It appears that change in behavior will be influenced by a desegregated environment, but attitude is a less malleable quality and requires a more substantial influence, such as a close cross-race relationship.

Social Identity and Intergroup Relations

Social identity theory suggests that positive group identity and a negative perception of treatment of one's group would weaken the relationship between true contact and intergroup behavior and attitudes. Subsequently, positive interactions with members of other groups would not be sufficient to counteract the natural

tendency to ascribe negative attributes to outside groups. The findings of this study did not support this assumption: identity group salience did not moderate the relationship between close interpersonal contact and intergroup attitudes and behavior. Although the first main finding of this study would suggest that interpersonal contact influences intergroup thought and actions, the results of this study still leave unclear what underlying cognitive processes allow interpersonal interactions to influence the way individuals think about and interact with those different from themselves. It is possible that because of the subjective and personal nature of identity, ethnicity, and perception, it may be difficult to fully understand, or at least measure, the factors that allow this shift to occur.

The literature regarding identity suggests that the association between identity and perception of discrimination would negatively influence relations with other groups. However, proponents of identity theory do suggest that strong identity alone, without perceptions of negative environmental influence, could function in this positive manner. It is possible that the identity component of the identity group salience measure was more powerful than the negative effects of perceptions of discrimination in the environment. The positive or negative nature of either one of these components may have influenced the ability of identity group salience to moderate the relationship between interpersonal interactions and intergroup attitudes and behaviors. Alternative ways to consider how these variables influence this relationship may also need to be considered. For example, does a weak identity

sublimate the power of negative environmental messages about one's group? Does a strong identity function to encourage intergroup interaction in light of negative environmental messages? These are only a few possible alternative ways this factor may function for different individuals.

As mentioned above, past research has conceptualized identity group salience as a moderating factor that increases the impact of interpersonal contact on intergroup relations. Although the importance of one's identity group did not moderate the relationship between interpersonal contact and intergroup relations, identity group salience did demonstrate a more direct role in the exploration of intergroup relations. The results of this study indicate that as identity group salience increased, students reported more positive orientation towards other groups. While the results from a study conducted by Phinney et al. (1997) suggest that attitude toward one's group and contact with other groups were the most significant influences on intergroup attitude, group identity salience has not been explored for its direct influence on intergroup behavior. Exploring the direct role of identity group salience in intergroup behavior may be especially important considering identity group salience contributed to 11% of the variance of other-group orientation while the proposed predictor true acquaintance contact contributed only 4 percent.

Because of the unexpected nature of this finding, there is no clear explanation as to why an individual's decision to interact with other groups might be influenced by identity group salience. As intergroup behavior was found to be influenced by less

personal contact, which could be viewed as an environmental factor, it is possible that the environmental factors in general (such as whether or not you see negative messages about your group) play a significant role in intergroup behavior.

Intergroup Relations: Understanding Attitude and Behavior

The issues it takes to influence intergroup behavior versus intergroup attitude are different, yet related in a manner that suggest methods for supporting positive cross race interactions in schools. For example, results of this study found significant differences in attitude based on socioeconomic status (SES); in particular, students of families with higher SES demonstrate more negative attitudes. Because attitude is more strongly influenced by close cross race friendships, it may be especially important in school with students from families with high SES to pay attention to and encourage close cross race interpersonal interactions if they desire to improve the cross race attitudes of their students. They may also encourage families of these children to increase the significance of the interaction they have with members outside their ethnic group. Similarly, White students were more likely to demonstrate negative intergroup behavior, so focusing on diversifying the general environment would also be beneficial to those schools with large White populations. It is important to note, as was found in this study, that socioeconomic status and ethnicity present a strong relationship in the United States. It is no surprise that those with high

SES and white students present similar patterns, as students of color are more likely to be of low Socioeconomic status (Maruyama, 2003).

Finally, intergroup attitudes and behavior operated in distinctly separate manners. Attitudes appear to be influenced more by demographic variables such as income and close relationships, while intergroup behavior is influenced by the immediate environment, such as the presence of others. It appears to be easier to predict behavior based on casual contact: however, attitude is a variable that takes more substantial qualities, such as socioeconomic status, and close friendships to change. The conclusions of this study supports Trafimow's (2000) proposition that attitudes and behaviors are affected by the public and private self.

Although the conclusion has been that getting students to interact with cross race members is the most important factor in promoting more positive intergroup relations, it appears that intrinsic qualities, such as identity group salience, may provide more substantial influence than external qualities such as contact. It is still unclear how interpersonal contact leads to intergroup attitudes and behavior. Nonetheless, it is comforting to know that there may be social and environmental interventions that may aid in creating more positive intergroup relations.

Limitations of This Study

One limitation of the current study is the measurement of intergroup attitude and behavior. The reliability of these measures, while moderate, was significantly

lower than when used in previous studies. This difference could have influenced the ability of these instruments to measure the concepts proposed.

In addition to this limitation, classroom contact may have been a more appropriate measure of casual contact. Considering tracking practices, school population may not have accurately represented the day to day contact students have with one another. Nonetheless, classroom contact is more difficult to measure in middle school during which students routinely switch classes.

In addition to instrumentation and measurement, a third limitation of this study involved the weak associations among the significant outcomes. Many of the variables accounted for a low percentage of the variance for the construct they were predicting. However, these low percentages are significant considering the difficulty of measuring psychological concepts, and the consistency with which they yielded results in this and previous studies. Nonetheless it is clear that variables other than casual or true interpersonal contact play a significant role in predicting intergroup attitudes and behavior. This study neglected to include variables known to significantly influence students' attitudes and behavior, such as parent, family, and peer opinions.

Another possible limitation was the failure to address the possibility of students responding in a social desirable manner. Although Rattazzi and Volpato (2003) found that scales measuring prejudice of high school and university students were not correlated with social desirability, it should be noted that this could be an issue for middle school students. Adolescence is a stage at which identity formation

and peer influence are significant. For this reason, the desire to report positive responses in self report measures is an issue that may need to be considered when exploring intergroup relations among middle school students.

A final limitation of this study involved the clumping of races together when determining the influence of interpersonal contact on intergroup relations. There is clear research evidence that ethnicities function differently in regard to issues of friendship and interpersonal interactions. It may have been more effective if race of close friend and individual group intergroup attitude and were taken into consideration.

Implications for Research and Schools

In conclusion, this study suggests several ideas for the field of intergroup relations and for schools. First, being a minority in a school is associated with negative intergroup behavior, or a higher tendency to seek out same race interaction, but not necessarily negative intergroup attitudes. The choice to engage same race peers should be investigated by researchers and educators to determine if within school separation is having a negative influence on the intergroup environment within schools. However, it should be cautioned that increased in-group interaction is not necessarily negative and could be developmentally appropriate for the formation of positive identity (Gonzales & Cauce 1995). Administrators are encouraged to nourish

cross race interaction, but understand that seeking same race interaction does not necessarily mean students harbor negative attitudes about other groups.

Second, if the desire is to increase intergroup behavior in particular, the environment should encourage positive group identity and discourage demonstration of discrimination. Above interpersonal contact, this study found that identity group salience was predictive of positive intergroup behavior. Schofield (1995b) suggests administrators and teachers in school can foster positive racial relations by making expectations regarding the respect of peers' rights' clear, and encouraging the expression of activities associated with a variety of cultural backgrounds.

Third, if the desire is to encourage both positive attitudes and behavior, events should be structured to encourage true and significant interpersonal contact among students. Examples of this would be increased heterogeneity within classrooms and cooperative learning experiences that require teamwork and collaboration (Slavin, 1985, Cook, 1984, Schofield 1995b). In fact, Hansell and Slavin (1981) determined that cooperative learning teams increased intergroup behavior consistently for seventh and eighth grade students among all ethnic groups and both genders explored in their study. This has important implications considering the differences in intergroup attitudes and behavior based on ethnicity and gender found in this study.

This study was intended to explore means of creating positive intergroup relations based in the interpersonal interaction of middle school students. It is hoped that the conclusions are helpful in generating ideas and avenues for intervention in

developing positive intergroup relationships today that students will continue to foster and promote in their future.

APPENDIX

APPENDIX A: STUDY SCALES

Intergroup Attitude

alpha = .39

African American Students' Items:

It would be nice to have more Hispanic students here.

It would be nice to have more White students here.

Hispanic Students' Items:

It would be nice to have more African American students here.

It would be nice to have more White students here.

White Students' Items:

It would be nice to have more African American students here.

It would be nice to have more Hispanic students here.

Other-group Orientation (6 items)

alpha = .52

1. I often spend time with people from ethnic groups other than my own
2. I like meeting and getting to know people from other ethnic groups
3. I sometimes feel it would be better if different ethnic groups didn't try to mix together(R)
4. I don't try to become friends with people from other ethnic groups (R)
5. I am involved in activities with people from other ethnic groups
6. I enjoy being around people from ethnic groups other than my own

(R) indicates items that were reverse scored.

Identity Group Salience

Group Identity (14 items)

alpha = .78

1. My ethnicity/culture is important to me
2. I have spent time trying to find out more about my ethnic group such as history, traditions and customs
3. I am active in organizations or social groups that include mostly members of my own ethnic group
4. I have a clear sense of my ethnic background and what it means to me.
5. I think a lot about how my life will be affected by my ethnic group membership
6. I am happy that I am a member of the group I belong to
7. I am not very clear about the role of my ethnicity in my life (R)
8. I feel I have a strong sense of belonging to my own ethnic group
9. I understand pretty well what my ethnic group membership means to me, in terms of how I related to my own group and others.
10. In order to learn more about my ethnic background, I have often talked to other people about my ethnic group
11. I have a lot of pride in my ethnic group and its accomplishments
12. I participate in cultural practices of my own group, such as food, music, or customs
13. I feel a strong attachment towards my own ethnic group
14. I feel good about my cultural or ethnic background

Perception of discrimination (3 items)

alpha = .63

1. I have been called names at school because of my racial/ethnic group.
2. I have seen negative words about my racial/ethnic group at school.
3. I feel that others don't like people from my racial/ethnic group.

These scales were combined to create the Identity Group Salience, alpha = .76.

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Vita

Kimberly Dawn Wilson was born in Houston, Texas on April 24, 1972, the daughter of Sandra Marie and Harold Wayne Wilson Sr. After completing High School at Sam Houston High School, San Antonio, Texas in 1990, she entered Duke University in Durham, North Carolina. She received her Bachelor of Art degree in Psychology and African American Studies in May of 1994. She worked in sales and marketing for a few years in New York City. In August of 1997 she entered the graduate school in the school psychology program at the University of Texas at Austin. She completed her predoctoral internship at Cypress Fairbanks Independent School District in June 2003.

Permanent address; 2825 North Highway 360 #1035, Grand Prairie, Texas 75050

The dissertation was typed by Kimberly Dawn Wilson.