

STEREOTYPES OF AND DISCRIMINATION AGAINST
RACIAL/ETHNIC MINORITIES: CAN MEDIA EXPOSURE
HELP CHANGE PEOPLE'S RACIAL/ETHNIC PREJUDICE
FOR THE BETTER OR FOR THE WORSE?

By

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Chair

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Abstract

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Prejudice leads to stereotypes. Instead of the direct contact approach, mass media are expected to play an important role in changing prejudice by exposing audiences to different portrayals of racial/ethnic minorities. It is found that subjects exposed to positive portrayals of the target group, Arabs in this study, stereotype them in ways different from those exposed to negative and neutral portrayals of the target group. However, their stereotypes are not predicted by their liking of the positive media portrayals about the target group as measured by the perception analyzer, a reliable measure of respondents' continuous responses to stimuli. Despite a strong effect of positive media exposure and a weak positive correlation between subjects' liking of the positive portrayals and positive stereotypes, we don't find a strong correlation between the implicit stereotype measure of word recognition and the explicit prejudice measure of QDI.

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CHAPTER ONE

INTRODUCTION

American society was analogized as the “melting pot” because it assimilated European immigrants into the United States so much so that they reconstructed their national identity, culture, and language, and adopted not only the language but also the customs and values of the new world in a relatively short period of time (Wilson, 1985). Although this “melting pot” has always been fueled by immigrants from all over the world, prejudice, negative stereotypes of racial/ethnic minorities, and discrimination against them continue to prevail. The “melting pot” has become “a tinderbox that seems ready to explode” with increasing racial tension (Waller, 2000). Refusal of housing, discrimination at work, refusal of contract, residential segregation, exploitation, hate crimes and xenophobia all point to the fact that prejudice is as bad, if not worse today as it was centuries ago (Dovidio, Gaertner, & Pearson, 2005; Oskamp, 2000; Taguieff, 2001; Waller, 2000).

How can we reduce prejudice? Research has found that direct inter-group contact is a helpful approach to reducing prejudice, but practical problems arise when optimal contact is our aim (Pettigrew & Tropp, 2000). Therefore, the direct contact approach remains largely an experimental success. Although legislation actions such as affirmative action have reduced prejudice at the societal level, it is argued that they might have turned those traditional racial/ethnic prejudices into a subtle form of prejudice. People veil their racial/ethnic prejudice as a result (Dovidio et al., 2005; McConahay, 1986).

Can mass media play an important role in reducing people’s racial/ethnic prejudice? They can, as research has shown, in providing job opportunities through media or public relation skills (Oskamp & Jones, 2000). However, instead of these economic

mechanisms, can they change people's prejudice with disconfirming portrayals of the target group by working on their psychological mechanisms? How can media effect on prejudice reduction be measured? These are the questions that guided this research.

CHAPTER TWO

LITERATURE REVIEW AND HYPOTHESES

American society is different from most other societies in that it is mostly made up of immigrants, whether the white majority or the colored minority. An exception to this is the Native American population, which, though they are the native people in this land, has long been identified as one of the four racial/ethnic minority groups in the United States. Broadly defined, the other three are African Americans, Hispanics and Asian Americans.

According to the 2001 census, of the four racial/ethnic minorities, Latinos or Chicanos comprise the largest portion of all the racial/ethnic minority populations (35,305,818 or 12.5 % of the population). African Americans are the second biggest (34,658,190 or 12.3 %), followed by Asian Americans (10,242,988 or 3.6 %), and Native Americans (4,075,956 or 1.4 %). Making up more than 29.8 % of the total population in the United States, the racial/ethnic minority populations are still on the rise and growing at a much higher rate than that of the Whites (Wilson & Gutierrez, 1995; U.S. Bureau of the Census, 2001). It is estimated that the “minority” populations will surpass 50 % in two decades. As a result, racial and racial/ethnic issues demand more political, economic, sociocultural, and individual resolutions in this century than ever before (Sue & Sue, 2003).

In the past few decades, the comparatively large and ever increasing population of the four racial/ethnic minority groups has attracted the interest of researchers. Some focus mainly on racial/ethnic prejudice, especially in the form of modern racism or aversive racism (Dovidio et al., 2005; Dovidio, Kawakami, & Gaertner, 2000; Dummett, 2004; Johnson & Johnson, 2000; Levine, 2004; Oskamp & Jones, 2000; Pataki, 2004; Pettigrew

& Tropp, 2000; Taguieff, 2001). Others examine stereotypes (Busselle, 2001; Busselle & Crandall, 2002; Devine, 1989; Devine, Monteith, Zuwerink, & Elliot, 1991; Devine & Elliot, 1995; Gandy, 2001; Gilens, 1996; Greenberg & Brand, 1994; Greenberg, Mastro, & Brand, 2002; Greenwald, McGhee, & Schwartz, 1998; Greenwald & Banaji, 1995; Hamilton & Trolier, 1986; Hughesm & Baldwin, 2002; Oyserman & Sakamoto, 1997; Shelton, 2000; Sniderman, Piazza, Tetlock, & Kendrick, 1991; Tan, Fujioka, & Tan, 2000; Tan, Tan, Avdeyeva, Crandall, Fukushi, Nyandwi, Chin, Wu, & Fujioka, 2001; Taylor & Stern, 1997; Wilson & Gutierrez, 1985, 1995; Wittenbring, Judd, & Park, 1997). Most relate prejudice and stereotypes to discrimination.

Racial Prejudice

Prejudice is an attitude. *Racial/ethnic prejudice* is “a preconceived negative judgment” (Taguieff, 2001; p.151) of, or negative attitude (Dovidio et al., 2005) towards a member of a social group or that social group as a whole. The preconceived nature of racial/ethnic prejudice determines that racial/ethnic prejudice is in most cases an irrational, faulty, and self-fulfilling idea of others that one arrives at when looking at people from the point of view of one’s own benefit. The erroneous judgment results from a lack of sound information when one tries blindly to defend one’s status quo or categorizes one’s social identity into us as opposed to others (Tajfel & Turner, 1979). In this sense, it is largely a primordial state of mind no matter that it is often irrational and sometimes rational (Dummett, 2004).

As a result of the wildly affective process and biased ideas about others and other social groups, genocide took place in both remote and recent history, hate crimes never cease, and good excuses are found for malicious acts (Dovidio et al., 2005; Waller,

2000). It is the hostile power of prejudice that makes those who study prejudice determined to find not only the causes of prejudice, but also ways to reduce, if not totally eliminate, it.

Oskamp (2000) suggests four approaches to reduce racial/ethnic prejudice: 1) laws, regulations, and widespread norms; 2) mass influence processes—either normative or informative; 3) group and interpersonal influence processes—either normative or informative; and, 4) psychotherapeutic approach to modify personality characteristics. Among the four, he argues, the first is most effective. However, it is also most compulsory and demands proper time and proper circumstances to have the best effect. The second can be as effective if well applied because it may reach almost the same majority of people as the first. As it could be absolutely noncompulsory, it will not meet as much negative reaction as the first. The third approach has been found to be very effective. According to Oskamp (2000), the only problem is that given its intervention nature, it is not a feasible natural process of communication. The last approach has to be carried out with great expertise in psychotherapy if no one is to be mistreated or prosecuted for their different attitudes and ideas as has happened at times in history (Sternberg, 2005).

Discrimination

Related with prejudice is discrimination. Research has found that there might not be a causal relation between prejudice and discrimination (Oskamp, 2000). In fact, *discrimination* is defined as “a supposedly observable and relatively measurable behavior” (Taguieff, 2001; p. 161) with the purpose of benefiting one individual or social

group instead of another. However, it is believed that discrimination will be eliminated when prejudice is (Taguieff, 2001).

Stereotyping

Another related psychological process is stereotyping. Stereotypes are usually simple and overgeneralized assertions about members of other social categories (Snyder & Miene, 1994). Stereotypes were found in dramas in ancient times as they are in modern media (Allport, 1958; Ashmore & Del Boca, 1981; Campbell, 1995; Greenberg & Brand, 1994; Greenberg, Mastro, & Brand, 2002; Winacke, 1957). Although stereotypes are usually negative and incorrect beliefs about other social groups, they play an important part in our social life because they save our cognitive energy when making judgments of others. They help us defend ourselves when we hold negative opinion of others. And they help us identify with our own social and cultural groups thus providing a sense of belonging (Snyder & Miene, 1994). In other words, negation, cognitive convenience, ego-defense, and maintenance of the status quo are all the common features of stereotyping and prejudice.

Research on stereotypes of racial/ethnic minorities ranges from the actual content of stereotypes (Katz & Braly, 1933) to the cognitive characteristics of stereotypes (Allport, 1958, Devine, 1989; Snyder & Miene, 1994; Stephan & Stephan, 1996), to the inevitable practice of stereotypes (Dovidio & Gaertner, 1986; Niemann, Jennings, Rozelle, Baxter, & Sullivan, 1994), and to possible changes in stereotypes (Devine, 1989; Devine et al., 1991; Devine & Elliot, 1995). These studies lead us to the proposition that as real life stereotypes are inevitable in human communication, it is beneficial to apply

positive media portrayals of racial/ethnic minorities to influence people's perception of other groups and consequently mitigate their racial/ethnic prejudice in real life.

Stereotypes of Racial/Ethnic Minorities in the Media

Stereotypes are categorizations of people (Stephan & Stephan, 1996). In other words, they are beliefs about the personal attributes of a group of people (Ashmore & Del Boca, 1981). Katz and Braly (1933) asked their respondents to provide any words they thought that could best describe such racial and national groups as Germans, Italians, Blacks, Irish, English, Jews, Americans, Chinese, Japanese, and Turks. They arrived at a checklist of 84 traits or characteristics from this study. Their findings pointed to the prevalent stereotypes people held towards others, such as German being "scientifically-minded" and Chinese being "superstitious." As a groundbreaking empirical study of stereotype content, their checklist has provided a guideline for other researchers.

Although they were not always a minority group, Native Americans were first stereotyped in American society. They are stereotyped mainly in Western movies (Wilson & Gutierrez, 1995), and appear occasionally in news stories (Mastro & Greenberg, 2000). In movies, their dark and handsome appearance made them well distinguished from the settlers in the new world although they were often cast as "noble savages" (Wilson & Gutierrez, 1995). Their language, physical and cultural differences left them minor parts not only in Westerns, but also in American social and economic developments (Berkhofer, 1978; Weston, 1996). Unfortunately, what we see on television today is more or less the same historical portrayal of Native Americans as we saw in Westerns several decades ago (Weston, 1996). The little research on the portrayal

of Native Americans by television reflects the fact that this minority group is very much underrepresented in the age of television (Mastro & Greenberg, 2000; Weston, 1996).

Similar to Native Americans, Asian Americans are also underrepresented in American media. Scanty research shows that in American history, Asian Americans were stereotyped with both positive attributes such as “industry honesty, thrift, and peaceful disposition,” and negative ones such as “debased, clannish, and deceitful” (Wilson & Gutierrez, 1995). They were often depicted as “yellow peril” in the movies (Wilson & Gutierrez, 1995). More recent studies find that although Asian Americans are stereotyped as a “Model Minority” for their affluence, high education, and work ethic (Taylor & Stern, 1997), they are still held by such stereotypical description as “Asians are all generic,” “short,” “wear glasses,” “don’t speak English well (or at all),” “have accents,” “can’t communicate”, in addition to being “smart,” “genius,” “intelligent,” “overachiever,” “nerdy,” “law, math, or science major,” “4.0 GPAs,” and “competitive and diligent, don’t have fun” (Oyserman & Sakamoto, 1997). They were nonexistent on television prior to 1960s, and they are rarely portrayed on primetime television (Mastro & Greenberg, 2000).

Of the four minority groups, African Americans appear on American media most frequently. Historically, they bear such labels as laziness, slow-wittedness, having loose moral standards, and a fondness for alcoholic beverages (Wilson & Gutierrez, 1995). They are overrepresented in network TV news and weekly newsmagazines as poor (Gilens, 1996). In addition, they are also frequently linked to crime in news reports (Dixon & Linz, 2000). African Americans are represented more in entertainment media (40 % in crime drama and 34 % in situation comedies on primetime television) than in news media and they are often stereotyped as poor, lazy, unemployed, servants,

aggressive, or as ignorant clowns (Campbell, 1995; Mastro & Greenberg, 2000; Mastro & Robinson, 2000).

Latinos or Chicanos were not only stereotyped as a mixture of cruelty and gallantry in history, they were also stereotyped as being lazy, ignorant, and filthy in literature. They were cast as “Latin lovers” in movies (Wilson & Gutierrez, 1995). Similar to Native Americans and Asian Americans, Latinos are underrepresented on television and their stereotypes can be traced back to their images in movies as well. They appear on television as disheveled, untrustworthy and dishonest bandits, drug runners or inner-city gangsters; sexy females; dim-witted and laughable male buffoons; Latin lovers; mysterious and alluring dark ladies (Greenberg et al., 2002; Ramirez Berg, 1990).

In summary, the four racial/ethnic minority groups are not only underrepresented in American media, but are also stereotyped far more negatively than positively. Their negatively skewed images in American media are good indications of the existence of racial/ethnic prejudice in American society.

Functions of Stereotyping in Real Life

Stereotyping is a natural cognitive process. It makes sense of the world by simplifying information processing (Snyder & Miene, 1994; Stephan & Stephan, 1996). Stereotyping becomes our natural choice because we have such a limited cognitive capacity that if we do not process information deductively, we will not be able to handle the myriad of information we face daily (Lang, 2000). In order to process information most efficiently, we resort to heuristic processing instead of systematic processing (Chen & Chaiken, 1999). When we stereotype others, it saves our cognitive energy (Snyder &

Miене, 1994; Stephan & Stephan, 1996). We do not need to make an effort to make judgments which systematic processing demands. Instead we use our stored information, which is constrained by its availability, accessibility and applicability, to form mental rules or images (Chen & Chaiken, 1999; Lippmann, 1922), and to construct stereotypes of other groups of people.

In addition to the cognitive function, stereotyping also has its social and psychological functions. Socially, it helps verify and maintain the existing social order and reality so that we attribute any social or cultural difference to ours as a better civilization and others' as inferior (Allport, 1958; Carmichael & Hamilton, 1967; Dovidio et al., 1986). Psychologically, this generates a sense of superiority to other groups of people or other individuals and in this way serves our ego defense (Allport, 1958; Ashmore & Del Boca, 1981; Hamilton, 1981c; Hamilton & Trolier, 1986; Snyder & Miene, 1994). In both senses, stereotypes justify our prejudiced mind (Allport, 1958; Taguieff, 2001).

Therefore, stereotyping other groups of people, including minorities in American society, is an inevitable part of communication, whether intrapersonal, interpersonal or mediated, because it not only meets our cognitive needs, but also serves our social and psychological purposes. The three functions of stereotyping can, in a strict sense, explain not only the negative stereotypes people usually have towards minorities in American society at large, but also the inevitability of this cognitive process.

Changing Stereotypes and Changing Prejudice

Negative stereotypes are the core of prejudice and are reflected in discriminated behavior towards other groups of people (Allport, 1958). In other words, the negative

perceptions or judgments of the targeted racial/ethnic groups result in assigning to them abstract and, in most cases, negative group traits. Racism and racial/ethnic discrimination are normal and quite commonplace features of American society because we can not help but discriminate when we stereotype (Gandy, 1998). This is the case because we use stereotypes to defend our ego so that our self-concept and self-interests will not be threatened by others. In other words, stereotyping is to use words to confirm our belief about a social group. Research on stereotypes finds that racial/ethnic minorities have been not only stereotyped, but also discriminated against (Bell, Harrison, & McLaughlin, 1997; Cheng, 1997). To alleviate discrimination, we have to eliminate racial/ethnic prejudice. To eliminate racial/ethnic prejudice, we must recognize and change stereotypes.

Racial/ethnic prejudice in American society has changed so much so that old-fashioned racial/ethnic prejudice is now found in the form of the modern racism (McConahey & Hough, 1976), or aversive racism (Dovidio et al., 2005; Dovidio et al., 2000) that describes those who believe they are not racists, but their attitudes and behavior show that they actually are. Often their prejudice is so subtle that it is difficult to measure (Bynes & Kiger, 1988; McConahay, 1986). Therefore, it is argued that racial/ethnic prejudice needs to be measured more effectively.

Recent research shows that stereotypes change too (Devine, 1989; Devine et al., 1991; Devine & Elliot, 1995; Hamilton & Sherman, 1994). The images of African Americans portrayed as middle-class instead of their former portrayal as working-class, aids in the improvement of their images (Gray, 1989). However, this disconfirming information process may not lead to positive stereotypes of African Americans if the underlying racial/ethnic prejudice is not challenged.

Though research has been done on the changes of stereotypes by way of disconfirming information (Devine, 1989; Devine et al., 1991; Devine & Elliot, 1995; Gray, 1989; Hamilton & Sherman, 1994), most researchers have focused on how disconfirming information about a certain group of people could change the audiences' stereotypes of them (Devine, 1989; Devine et al., 1991; Devine & Elliot, 1995), or how the self-image of a certain group of people changed because of the disconfirming information they received (Gray, 1989). Little research exists on how different media portrayals of a certain group of people could lead to different levels of affective responses to the stimuli and therefore to different levels of stereotyping of the target group. The present study measures subjects' moment to moment affective response to media stimuli and analyzes its causal relation to stereotyping.

The correlation between implicit and explicit stereotype measures is studied mainly in the field of psychology and the findings have been inconsistent (Dovidio & Gaertner, 1986; Greenwald et al., 1998; Greenwald & Banaji, 1995; Shelton, 2000; Sherman, Conrey, & Groom, 2004; Wittenbrink, Judd, & Park, 1997). In the same light, research has found that the traditional measures on people's racial/ethnic prejudice are no longer effective because as conceptual measures they are sensitive to participants. In most prior research the participants have been white college students who are socialized to avoid expressions of racial/ethnic prejudice (Dovidio & Gaertner, 1986; Greenwald et al., 1998; Greenwald & Banaji, 1995; Shelton, 2000; Sherman et al., 2004; Wittenbrink et al., 1997). It is the perceptual measures, or measure of affective reactions to stimuli, that tell about implicit attitudes and are beyond a person's control (Crisp & Hewstone, 2001). To avoid sensitivity on the part of the participants, therefore, an implicit stereotype measure and an explicit measure of racial/ethnic prejudice are used in the present study.

This is another innovative aspect of this study. Here we are interested in finding a strong correlation between an implicit stereotype measure and an explicit racial/ethnic prejudice measure.

Theories and Hypotheses

Stereotypes are subjective judgments we make about other groups of people. However, according to social cognitive theory (Bandura, 2002), as a subjective matter, they play an important role in shaping opinions about others and subsequent behavior towards them.

Bandura's social cognitive theory explains the triadic reciprocal mechanism of the three determinants in human cognitive process—personal factors, behavior, and environment. According to this theory, we get information through our observations of the environment, we form our personal judgment, and then take action accordingly. On the other hand, our environment and behavior also affect our perception and judgments. Here, we are an active perceiver or constructor of reality, with our brain as the central information processor. Anything outside our brain is taken as our environment. Therefore, not only natural surroundings, but also other people and their behavior, serve as our environment. They are the objects of our observation, and are the sources of our information.

As Lippmann (1922) put it, in the case of stereotypes, we stereotype what we see, so other people and their behavior are our environment. We observe them and their behavior, get information about them, and sort out the information we get about them by putting them into different categories according to our existing preferences. The categorized information about other groups of people constitutes our stereotypes about

them. Then we respond to them based on our stereotypic understanding or evaluations of them. Once we get other groups of people stereotyped in our mind, we will always think of them that way and react to them accordingly. Our stereotypes will not change unless different information about them appears so much so that we have to reconsider our earlier judgments.

One of the most important concepts in social cognitive theory is that “virtually all learning phenomena resulting from direct experience can occur vicariously by observing people’s behavior and its consequences for them” (Bandura, 2002; p. 66). Vicarious experience plays a critical part in human development because it abbreviates our knowledge acquisition process so that we do not waste as much time and energy as we do in direct experience, during which we learn through trial and error. It also enables us to transcend the boundaries of our immediate environment, so we can obtain by indirect experience, information that may take us our entire lives to get individually, and even generations collectively. Vicarious experience, in the modern sense, is an even more important part of our cognitive process because we are now surrounded by such a sea of ever increasing information. Vicarious experience, then, has become the main form of our interaction with and consumption of information, the main information source of which is television. Here we are interested in determining how mass media contributes to people’s racial/ethnic prejudice and whether different media portrayals of the target racial/ethnic group can help change it.

As far as stereotypes are concerned, vicarious learning plays an even more important role in our stereotyping other groups of people than direct experience does either because we have little opportunity for direct experience with others or because we avoid contact with out-groups as an intentional treatment (Stephan & Stephan, 1996).

Because we can have in our lifetime direct contact with a very small sector of the physical and social environments (Stephan & Stephan, 1996), vicarious experience makes up for whatever we can not experience directly. With vicarious observation as our common experience with most of the things in the world, watching television is a critical means by which we learn about other people and subsequently behave towards them. This is why different media messages are used in this experiment as stimuli to influence people's racial/ethnic stereotypes of the target group.

Based on the above literature and a theoretical analysis of prejudice and stereotypes as they relate to discrimination in which the first two are constructed mainly through vicarious experience through media exposure, we predict a strong media influence on people's stereotypes of Arabs. This is based on the fact that Arabs have been found to be one of the most negatively stereotyped groups by American media (Shaheen, 2001). They are stereotyped as fabulously wealthy but uncultured barbarians, abuser of women, religious fanatics, brute murderers, and violent terrorists. After September 11, they have been stereotyped even worse (Merskin, 2004). Thus, we postulate the following hypotheses:

- H1: Participants who are exposed to the positive portrayals of Arabs will stereotype Arabs more positively than those who are exposed to the negative portrayals of Arabs.
- H2: Participants who are exposed to the positive portrayals of Arabs will stereotype Arabs more positively than those who are exposed to the neutral portrayals of Arabs.

- H3: Participants who are exposed to the negative portrayals of Arabs will stereotype Arabs more negatively than those who are exposed to the positive portrayals of Arabs.
- H4: Participants who are exposed to the negative portrayals of Arabs will stereotype Arabs more negatively than those who are exposed to the neutral portrayals of Arabs.
- H5: Prejudice will be positively related to liking of the negative portrayals of Arabs; the higher the prejudice, the more liking.
- H6: Prejudice will be negatively related to liking of the positive portrayals of Arabs; the higher the prejudice, the less liking.
- H7: Liking of the positive portrayals of Arabs will be positively related to stereotypes of them; the higher the liking, the more positive stereotypes.
- H8: Liking of the negative portrayals of Arabs will be positively related to stereotypes of them; the higher the liking, the more negative stereotypes.

CHAPTER THREE

METHOD

Participants

A purposive sample of 51 undergraduate students majoring in communication from a Northwestern university was selected for this study. More than half are females (54.9 %). They range in age from 18 to 24, with an average age of 19.5. All of the participants are White because the purpose of this study is to examine people's racial prejudice and their stereotypes of the target group.

Stimuli

First the researcher sorted out three types of stimuli and edited them into six video clips about Arabs (two positive, two negative and two neutral), each about 10-minutes long. Then the video clips were rated on a 5-point Likert scale (1 means most negative, 5 most positive and 3 neutral) by 34 communication students as their class practice in quantitative methods. The most positively ($M = 4.97$), negatively ($M = 1.02$) and neutrally ($M = 2.88$) rated clips were then used in this experiment.

The "positive video clip" is an 11 minute and 50 second documentary taken from the television documentary program, *Islam, Empire of Faith*, produced by Gardner Films Production in association with PBS and Devillier Donegan Enterprises. The video clip tells about scientific contributions that Arabs have made to the world civilization.

The "negative video clip" is a 9 minute and 11 second film taken from the movie *True Lies*, produced by Twentieth Century Fox Home Entertainment. It portrays Arabs as terrorists who want to destroy America.

The “neutral video clip” is an 11 minute and 15 second documentary also taken from the documentary program *Islam, Empire of Faith*. It tells about the rise of the Ottoman Empire.

Apparatus

A *perception analyzer* was used in this experiment. This new research equipment was chosen for two reasons. First, this research focuses not only on the racial/ethnic prejudice and stereotypes people hold in general towards other groups of people, but also on how their affective processing relates to such perceptions and attitudes. The perception analyzer, with its unique function of recording participants’ responses on a moment-to-moment basis (as accurate as every half second), helps the researcher gather information of participants’ affective reaction while they are exposed to the stimuli (Biocca, David, & West, 1994). Second, the perception analyzer collects data more effectively and reliably than the traditional paper and pencil method because all the responses of the participants are recorded by a computer attached to the analyzer. This avoids any mistakes made in manual data entry. The application of the perception analyzer to collect data is a breakthrough in methodology and no published research on stereotypes has used it yet.

Measures

The Quick Discrimination Index (QDI) developed by Ponterotto et al. (1995) was used to measure participants’ racial/ethnic prejudice in general. QDI is designed to be used across racial/ethnic groups, thus overcoming the major shortcoming of most racial/ethnic attitude measurements that are developed to measure Whites’ racial/ethnic

attitudes towards Blacks. The 30-item measure's Cronbach's alpha is .88, among which Factor 1, general/cognitive attitudes, is .85 and Factor 2, personal/ affective attitudes towards diversity issues, is .83 (Ponterotto et al., 1995). As this experiment was designed to take about 50 minutes, 21 items that test racial/ethnic attitudes in the QDI were used in the study as *an explicit measure of people's racial/ethnic prejudice*. All the 21 items (with a Cronbach's Alpha of .87) clearly asked respondents about their attitudes towards racial/ethnic issues (see Appendix 1).

An *implicit stereotype measure* was used in this experiment. It was modified from the lexical-decision task (LDT) used by Wittenbrink et al. (1997). In their research, Wittenbrink et al. studied people's stereotypes by measuring how fast subjects responded to words that are stereotypic of White and Black. Their study demonstrated that "positive items that were stereotypic of White Americans and negative items that were stereotypic of African Americans showed a stronger facilitation than positive African American items and negative White American items" (Wittenbrink et al., 1997, p. 268). "Positively valenced items showed a larger facilitation following the White prime than the Black prime, whereas negatively valenced items showed larger facilitation following the Black prime" (Wittenbrink et al., 1997; p. 268).

Rather than use Black and White as primes to facilitate both negative and positive valence items, American and Arab were used in this experiment. Instead of a millisecond time measure on participants' responses to attribute associations, participants' response time in finding or not finding a word in the cluster of letters was designed on a moment to moment question mode using the perception analyzer. Participants were given 60 seconds to respond to each cluster of letters. Their response time in recognizing a word from a cluster of letters was recorded by the perception analyzer on a 1-second basis.

Twenty words from LDT were used (with a Cronbach's Alpha of .89): five positive and negative words respectively after the prime word Arab; and five positive and negative words respectively after the prime word American. Positive words after the prime word Arab measured respondents' positive stereotypes of Arabs. The shorter participants' response time in figuring out the positive words, the more positive stereotypes they had towards the target group. Negative words after the prime word Arab measured their negative stereotypes of Arabs. The shorter participants' response time in figuring out the negative words, the more negative stereotypes they had towards the target group (see Appendix 2).

Procedure

Respondents who volunteered to participate in the experiment were assigned to one of the three treatments of positive stimuli, negative stimuli or neutral stimuli. In other words, participants who signed up for the first session of the experiment were assigned to the positive condition, those who signed up for the second session were assigned to the negative condition, and those who signed up for the third session were assigned to the neutral condition.

Participants were informed of the purpose of the study in general so that they would know that they were to accomplish three tasks. First, they were asked to answer 21 QDI questions. After answering the QDI questions, they were told to watch a video and rate continuously how much they liked it. After the media exposure, they were asked to find words from clusters of letters. They were told that they were being tested on how accurate and fast they were in finding those clusters of letters words or not (e.g.,

“ieconevl” as violence). They turned their dial to 0 if they did not find a word in the sequence of letters. They turned their dial to 2 if they found it a word.

All the data were collected by using the perception analyzer attached to a computer. The experiment took approximately 50 minutes with each condition. Respondents were debriefed after they finished answering the questionnaire. They were given extra credit for their participation in the study.

CHAPTER FOUR

RESULTS AND DISCUSSION

Thirteen QDI items were reverse coded (see Appendix 1). Five is coded to 1, 4 to 2, 3 to 3, 2 to 4, and 1 to 5. After recoding, high scores on QDI meant high prejudice. The response time to the ten negative words in the word recognition exercise was reverse coded (see Appendix 2). Sixty was coded to 1, 59 to 2, 58 to 3..., and 1 to 60. High scores (i.e., long response time) on word recognition meant negative stereotypes after recoding.

An ANCOVA test showed that response time was not significantly related to conditions ($p = .326$; 1-tailed), to prejudice ($p = .391$; 1-tailed), or to liking of the video ($p = .084$; 1-tailed) (see Table 1). Therefore, using the QDI and liking for the video clips as covariates, the valence of the media portrayals of Arabs did not affect stereotyping of them as measured by response time.

As we were interested in media effects on stereotypes, we conducted a one-way ANOVA test to find whether there were main effects of video valence on respondents' response time to different groups of words (their stereotypes of them). The ANOVA test showed that there was a significant main effect of video valence with regard to positive words following the prime word Arab ($p = .000$; one-tailed). (see Table 2).

The Post Hoc (Bonferroni) procedure showed that there is a significant difference between negative ($M = 11.0$, $SD = 7.6$) and positive ($M = 4.7$, $SD = 4.5$) groups (see Table 3) with regard to positive stereotypes of Arabs (response time on recognizing positive words after the prime word Arab) ($p = .004$; 1-tailed) (see Table 4). Therefore, these results supported Hypothesis 1, which states that participants who are exposed to

the positive portrayals of Arabs will stereotype Arabs more positively than those who are exposed to the negative portrayals.

However, there is no significant difference between positive ($M = 4.7$, $SD = 4.5$) and neutral ($M = 3.5$, $SD = 3.1$) groups (see Table 3) with regard to positive stereotypes of Arabs (response time on recognizing positive words after the prime word Arab) ($p = 1.000$; 1-tailed) (see Table 4). Therefore, we found no support for Hypothesis 2, which states that participants who are exposed to the positive portrayals of Arabs will stereotype the target group more positively than those who are exposed to the neutral portrayals.

Hypothesis 3 states that participants who are exposed to the negative portrayals of Arabs will stereotype Arabs more negatively than those who are exposed to the positive portrayals of Arabs. The results reported in Table 3 revealed that there was no significant difference between negative ($M = 33.5$, $SD = 12.8$) and positive ($M = 31.4$, $SD = 15.6$) groups (see Table 3) with regard to negative stereotypes of Arabs (response time on recognizing negative words following the prime word Arab) ($p = 1.000$; 1-tailed) (see Table 4). Therefore, Hypothesis 3 was not supported.

Hypothesis 4 states that participants who are exposed to the negative portrayals of Arabs will stereotype Arabs more negatively than those who are exposed to the neutral portrayals. The results reported in Table 4 revealed no significant difference between negative ($M = 33.5$, $SD = 12.8$) and neutral ($M = 28.4$, $SD = 14.8$) groups (see Table 3) with regard to negative stereotypes of Arabs (response time on recognizing negative words after the prime word Arab) ($p = .923$; 1-tailed) (see Table 4). As with Hypothesis 3, Hypothesis 4 was not supported.

Table 5 showed a significant positive correlation between prejudice and liking of the negative video ($r = .84$, $p = .000$; one-tailed) (see Table 5). This finding, then, was

consistent with Hypothesis 5 which states that prejudice will be positively related to liking of the negative portrayals of Arabs. Therefore, Hypothesis 5 was supported.

The results in Table 6 revealed a non-significant negative correlation between prejudice and liking of the positive video ($r = -.27, p = .148$; 1-tailed) (see Table 6). Therefore, Hypothesis 6, that prejudice will be negatively related to liking of the positive portrayals of Arabs, was not supported although the correlation was in the predicted direction.

Table 7 showed a non-significant positive correlation between liking of the positive video and positive stereotypes of the target group ($r = .22, p = .202$; one-tailed] (see Table 7). Therefore, Hypothesis 7, which predicts that liking of the positive portrayals of Arabs will be positively related to stereotypes of them, was not supported although again, the correlation was in the expected direction.

Finally, Hypothesis 8, that liking of the negative portrayals of Arabs will be positively related to stereotypes of them, was not supported by the results reported in Table 8. The results revealed a non-significant negative correlation between liking of the negative video and negative stereotypes of the target group ($r = -.07, p = .420$; one-tailed) (see Table 8).

At the outset of this study we predicted that media represent an effective means of changing people's stereotypes and hence their racial/ethnic prejudices. Hypothesis 1, which states that participants who are exposed to the positive portrayals of Arabs will stereotype them more positively than those who are exposed to negative portrayals, was supported by our analysis. Taking into account the fact that people are largely exposed to negative portrayals of racial/ethnic minorities by American media, this finding indicates that media can be effective in changing racial/ethnic prejudice when they work to

exposed their audiences to positive portrayals of the target group. This result is consistent with the disconfirming information theory (see Devine, 1989; Devine et al., 1991; Devine & Elliot, 1995; Gray, 1989; Hamilton & Sherman, 1994).

Hypothesis 2 states that participants who are exposed to the positive portrayals of Arabs will stereotype them more positively than those who are exposed to the neutral portrayals. This hypothesis was not supported by our findings. Rather, our findings suggest that positive group did stereotype a little more positively than neutral group though the difference we found was not statistically significant. This also points to our prediction that positive media exposure may be effective in changing people's stereotypes.

Hypothesis 3 states that participants who are exposed to the negative portrayals of Arabs will stereotype them more negatively than those who are exposed to the positive portrayals of Arabs. This hypothesis was not supported by our analyses. Nor was Hypothesis 4, which states that participants who are exposed to the negative portrayals of Arabs will stereotype them more negatively than those who are exposed to the neutral portrayals.

Both findings suggest that although negative attitudes or judgments are the common core of prejudice and stereotypes, people in present society, and especially those who are well-educated, tend not to express their negative attitudes or cognition towards others when racial/ethnic issues are concerned. As Devine and Elliot (1995) suggest, this calls for not only a more effective measure of people's aversive racism (see Gaertner & Dovidio, 1986), but also measures to prevent the media from exposing audiences to negative portrayals of other groups.

Hypothesis 5, that prejudice will be positively related to liking of negative portrayals of Arabs, was supported. This finding, together with findings with Hypotheses 3 and 4, shows that people like media messages that confirm their beliefs. They also demonstrate how hard it is for prejudice to die. Prejudice may exist in a different form (for example, aversive racism) rather than cease. Our findings suggest that people like portrayals that confirm their biased ideas even though they don't express them explicitly when required.

Hypothesis 6 states that prejudice will be negatively related to liking positive portrayals of Arabs. However, although the correlation was in the predicted direction, it was not statistically significant and therefore not supported. This suggests that prejudiced people may also like positive portrayals of the target group. This finding shows that people's affective reactions to the positive portrayals of the target group work against their prejudice. The contradiction between people's preconceived negative judgments of, or negative attitudes towards, the target group (their prejudice) and their liking of the positive media portrayals of them suggests that it may be possible to change people's racial/ethnic prejudice by exposing them to disconfirming information and by affective influence. What we might do is build up a positive affective reaction system to influence their attitudinal schema and eventually change their prejudice.

Hypothesis 7 states that liking of positive portrayals of Arabs will be positively related to stereotypes about them. Again, this hypothesis was not supported although the correlation was in the predicted direction. This suggests that people may not stereotype the target group positively because they like the positive media portrayals of them. This finding, together with the findings related to Hypothesis 6, suggests that using of media to change people's stereotypes and prejudice is a complicated process. It also suggests a

gap existing between emotions of prejudice and the rationale underlying negative stereotypes. Just as we suggested for the findings related to Hypothesis 6, it could be that it is the intensity of media exposure that determines its effects on people's stereotypes. It is also consistent with the idea that disconfirming information processes may not lead to positive stereotypes of the target group if the underlying racial/ethnic prejudice is not challenged.

Finally, Hypothesis 8, which posits that liking of negative portrayals of Arabs will be positively related to stereotypes, was not supported by our findings. This can be explained by the concept of aversive racism that educated people have towards racial/ethnic minorities in the same way that it explains the non-significant results for Hypotheses 3 and 4. People simply don't express their negative cognitions in the case of racial/ethnic issues. This again reminds us how hard it is to find an effective way to detect and understand modern racism and people's stereotypes of the target group.

CHAPTER FIVE

SUMMARY AND CONCLUSIONS

This study shows that positive media portrayals of a target group have influence on people's subsequent stereotypes whether the effect was significant (Hypothesis 1) or not (Hypothesis 2). These findings indicate that media could play an important role in changing the negative stereotypes people usually hold towards other groups of people, in this case Arabs.

Despite the above, we must realize the complicated nature of the process of media effects on people's prejudice and stereotypes. The findings related to Hypothesis 6 suggest that people's affective reactions to the positive portrayals of the target group work against their prejudice. This, in turn, suggests that it may be possible to change people's racial/ethnic prejudice by exposing them to disconfirming information and through affective influence. However, Hypothesis 7 shows that people may not stereotype the target group positively because they like positive media portrayals of them. Taking both findings into consideration, it may be that the intensity of disconfirming media exposure will lead to positive stereotypes of the target group.

We must also realize the difficulties in changing stereotypes and prejudices. The significant correlation between prejudice and liking of the negative portrayals of the target group (Hypothesis 5) suggests that people tend to cling to their biased attitudes and ideas. A negative correlation between liking of the negative portrayals of the target group and stereotypes of them (Hypothesis 8) shows that people tend to hold back negative expressions when racial/ethnic issues are concerned. This is consistent with the non-significant findings that negative media portrayals of the target group influence people's

subsequent stereotypes (both Hypotheses 3 and 4). The latter three findings warn us again that modern racism (or aversive racism that defines those who believe they are not racists while their attitudes and behavior show they are) has reached such a sophisticated stage that effective measures need to be developed to study the problem.

In addition to media effects on people's stereotypes, our findings suggest that explicit prejudice is negatively related to implicit stereotypes (see Table 9). Though this contradicts our prediction, it is consistent with findings with explicit and implicit measures of stereotypes (Greenwald et al., 1998; Wittenbrink et al., 1997). This demonstrates again that explicit and implicit stereotype measures are two different constructs.

As an innovation in methodology, we used a perception analyzer to detect people's affective response in addition to their explicit expressions of racial/ethnic ideas. Their affective response, together with their implicit (automatic) stereotypes of the target group, tells us more about their minds than their explicit expressions do. We conclude that traditional racism may be in the form modern racism (aversive racism). We find from our study that although prejudiced respondents like negative media very much, they do not show it in their negative stereotypes of the target group at a statistically significant level (both hypotheses 3 and 4). In such cases, we have to refer more to their affective cognition than their rational judgments.

This study has a few limitations. The first is the small sample size. With 17 subjects in each cell, it is difficult to find a significant difference either between groups (for example, Hypotheses 1 and 2) or within group (Hypotheses 5, 6, 7 and 8). The second limitation is the purposive sample of college students. As a well-educated group of people in the population, their racial/ethnic prejudice may not be representative of the

general public. This may have affected the generalizability of our findings. The third limitation is the implicit measure we use in this study. Stereotypes were measured by participants' response time in finding a word from the clusters of letters. However, it was not known whether they found the right word or they simply answered the question correctly by accident (by choosing the right yes or no).

We, therefore, suggest as a double check on their correct response to each word that participants write down the word they find from the cluster of letters in future research.

The negative correlation between the explicit measure of prejudice and the implicit measure of stereotypes suggests that future research should be directed towards finding effective ways to measure and deal with modern racism (aversive racism).

Table 1 Valence of Media Portrayals of Arabs by Stereotyping, Controlling For Prejudice and Liking of the Video Clip

<i>Source</i>	<i>Type III Sum of Squares</i>	<i>df</i>	<i>Mean Square</i>	<i>F</i>	<i>Sig.</i>
Corrected Model	389.50(a)	4	97.38	1.66	.176
Intercept	401.09	1	401.09	6.83	.012
Conditions	134.94	2	67.47	1.15	.326
QDI	44.07	1	44.07	.75	.391
Liking	183.63	1	183.63	3.13	.084
Error	2701.84	46	58.74		
Total	19042.30	51			
Corrected Total	3091.34	50			

Note. Conditions refer to positive, negative and neutral media portrayals of Arabs.

QDI refers to the Quick Discrimination Index; the higher the score, the more prejudiced.

Liking refers to liking of the video clips; the higher the score, the more liking.

a R Squared = .126 (Adjusted R Squared = .050)

Table 2 Valence of Media Portrayals of Arabs by Stereotyping of Arabs

<i>Variables</i>		<i>Sum of Squares</i>	<i>df</i>	<i>Mean Squares</i>	<i>F</i>	<i>Sig.</i>
Response time to positive words	Between Groups	557.19	2	278.60	.000	.000
	Within Groups	1416.56	48	29.51		
	Total	1973.76	50			
Response time to negative words	Between Groups	223.55	2	111.78	.589	.589
	Within Groups	10019.45	48	208.74		
	Total	10243.00	50			

Note. Response time to positive words refers to subjects' response time to positive words following the prime word Arab; the higher the score, the more negative stereotypes.
 Response time to negative words refers to subjects' response time to negative words following the prime word Arab; the higher the score, the more negative stereotypes.

Table 3 Table of Means of Response Time between Groups Exposed to Negative, Neutral and Positive Media Portrayals of Arabs

<i>Conditions</i>		<i>Response time to positive words</i>	<i>Response time to negative words</i>
Negative media exposure	Mean	11.04	33.55
	N	17	17
	Std. Deviation	7.64	12.81
Neutral media exposure	Mean	3.50	28.44
	N	17	17
	Std. Deviation	3.14	14.84
Positive media exposure	Mean	4.72	31.38
	N	17	17
	Std. Deviation	4.51	15.56
Total	Mean	6.42	31.12
	N	51	51
	Std. Deviation	6.28	14.31

Note. Response time to positive words refers to subjects' response time to positive words following the prime word Arab; the higher the score, the more negative stereotypes.
Response time to negative word refers to subjects' response time to negative words following the prime word Arab; the higher the score, the more negative stereotypes.

Table 4 Stereotyping of Arabs Measured by Response time of Groups Exposed to Negative, Neutral and Positive Media Portrayals of Arabs

<i>Dependent Variable</i>	<i>(I) condition</i>	<i>(J) condition</i>	<i>Mean Difference (I-J)</i>	<i>Std. Error</i>	<i>Sig.</i>
Response time to positive words	negative media exposure	neutral media exposure	7.54(*)	1.86	.001
		positive media exposure	6.33(*)	1.86	.004
	neutral media exposure	negative media exposure	-7.54(*)	1.86	.001
		positive media exposure	-1.21	1.86	1.000
	positive media exposure	negative media exposure	-6.33(*)	1.86	.004
		neutral media exposure	1.21	1.86	1.000
Response time to negative words	negative media exposure	neutral media exposure	5.11	4.96	.923
		positive media exposure	2.16	4.96	1.000
	neutral media exposure	negative media exposure	-5.11	4.96	.923
		positive media exposure	-2.95	4.96	1.000
	positive media exposure	negative media exposure	-2.16	4.96	1.000
		neutral media exposure	2.95	4.96	1.000

Note. Response time to positive words refers to subjects' response time to positive words following the prime word Arab; the higher the score, the more negative stereotypes.
Response time to negative word refers to subjects' response time to negative words following the prime word Arab; the higher the score, the more negative stereotypes.

Table 5 Correlation between Prejudice and Liking of Negative Media Portrayals of Arabs

		<i>QDI</i>
Liking of negative video	Pearson Correlation	.837(**)
	Sig. (2-tailed)	.001
	N	12

Note. *QDI* refers to the *Quick Discrimination Index*; the higher the score, the more prejudiced.

Liking of negative video refers to liking of the negative media portrayals of Arabs; the higher the score, the more liking.

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

Table 6 Correlation between Prejudice and Liking of Positive Media Portrayals of Arabs

		<i>QDI</i>
Liking of positive video	Pearson Correlation	-.270
	Sig. (2-tailed)	.295
	N	17

Note. *QDI* refers to the *Quick Discrimination Index*; the higher the score, the more prejudiced.
Liking of positive video refers to liking of the positive media portrayals of Arabs; the higher the score, the more liking.

Table 7 Correlation between Liking of Positive Portrayals of Arabs and Stereotypes of Them

		<i>Liking of positive video</i>
Positive stereotypes of Arabs	Pearson Correlation	.217
	Sig. (2-tailed)	.403
	N	17

Note. Liking of negative video refers to liking of the negative media portrayals of Arabs; the higher the score, the more liking.

Positive stereotypes of Arabs are measured by participant's response time to positive words following the prime word Arab; the higher score, the more negative stereotypes.

Table 8 Correlation between Liking of Negative Portrayals of Arabs and Stereotypes of Them

		<i>Liking of negative video</i>
Negative stereotypes of Arabs	Pearson Correlation	-.065
	Sig. (2-tailed)	.840
	N	12

Note. Liking of negative video refers to liking of the negative media portrayals of Arabs; the higher the score, the more liking.

Negative stereotypes of Arabs are measured by participant's response time to negative words following the prime word Arab; the higher score, the more negative stereotypes.

Table 9 Correlation between Explicit Prejudice Measure (QDI) and Implicit Stereotype Measure (Word Recognition)

		<i>QDI</i>
Implicit stereotype measure	Pearson Correlation	-.028
	Sig. (2-tailed)	.846
	N	51

Note. *QDI* refers to the *Quick Discrimination Index*; the higher the score, the more prejudiced. *Implicit stereotypes measure* is participants' response time to both negative and positive words following the prime word *Arab*; the higher score the more negative stereotypes.

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APPENDIXES

1. The Quick Discrimination Index (QDI)

Instructions: Please turn your dial to 1 if you strongly disagree, to 2 if you disagree, to 3 if you are not sure, to 4 if you agree, and to 5 if you strongly agree to the following statements.

1) I really think that affirmative action programs on college campuses constitute reverse discrimination.

1. Strongly disagree
2. Disagree
3. Not sure
4. Agree
5. Strongly agree

2) I feel I could develop an intimate relationship with someone from a different race.

1. Strongly disagree
2. Disagree
3. Not sure
4. Agree
5. Strongly agree

3) All Americans should begin to speak two languages.

1. Strongly disagree
2. Disagree
3. Not sure
4. Agree
5. Strongly agree

4) My friendship network is very racially mixed.

1. Strongly disagree
2. Disagree
3. Not sure
4. Agree
5. Strongly agree

5) I am against affirmative action programs in business.

1. Strongly disagree
2. Disagree
3. Not sure
4. Agree
5. Strongly agree

6) I would feel O.K. for my son or daughter dating someone from a different racial group.

1. Strongly disagree
2. Disagree
3. Not sure
4. Agree
5. Strongly agree

7) It upsets (or angers) me that a racial minority person has never been President of the United States.

1. Strongly disagree
2. Disagree
3. Not sure
4. Agree
5. Strongly agree

8) In the past few years, there has been too much attention directed toward multicultural or minority issues in education.

1. Strongly disagree
2. Disagree
3. Not sure
4. Agree
5. Strongly agree

9) Most of my close friends are from my own racial group.

1. Strongly disagree
2. Disagree
3. Not sure
4. Agree
5. Strongly agree

10) I think that it is (or would be) important for my children to attend schools that are racially mixed.

1. Strongly disagree
2. Disagree
3. Not sure
4. Agree
5. Strongly agree

11) In the past few years, there has been too much attention directed toward multicultural or minority issues in business.

1. Strongly disagree
2. Disagree
3. Not sure
4. Agree
5. Strongly agree

12) Overall, I think racial minorities in America complain too much about racial discrimination.

1. Strongly disagree
2. Disagree
3. Not sure
4. Agree
5. Strongly agree

13) I think the president of the United States should make a concerted effort to appoint more women and racial minorities to the country's Supreme Court.

1. Strongly disagree
2. Disagree
3. Not sure
4. Agree
5. Strongly agree

14) I think White people's racism toward racial minority groups still constitutes a major problem in America.

1. Strongly disagree
2. Disagree
3. Not sure
4. Agree
5. Strongly agree

15) I think the school system, from elementary school through college, should encourage minority immigrant children to learn and fully adopt traditional American values.

1. Strongly disagree
2. Disagree
3. Not sure
4. Agree
5. Strongly agree

16) If I were to adopt a child, I would be happy to adopt a child of any race.

1. Strongly disagree
2. Disagree
3. Not sure
4. Agree
5. Strongly agree

17) I think the school system, from elementary school through college, should promote values representative of diverse cultures.

1. Strongly disagree
2. Disagree
3. Not sure
4. Agree
5. Strongly agree

18) I believe that reading the autobiography of Malcolm X would be of value.

1. Strongly disagree
2. Disagree
3. Not sure
4. Agree
5. Strongly agree

19) I would enjoy living in a neighborhood consisting of a racially diverse population (i.e., African Americans, Asian Americans, American Indians, Hispanic, White).

1. Strongly disagree
2. Disagree
3. Not sure
4. Agree
5. Strongly agree

20) I think it is better if people marry within their own race.

1. Strongly disagree
2. Disagree
3. Not sure
4. Agree
5. Strongly agree

21) Gays and Lesbians should be given the same anti-discrimination protection as other minorities.

1. Strongly disagree
2. Disagree
3. Not sure
4. Agree
5. Strongly agree

Note. Items 2, 3, 4, 6, 7, 10, 13, 14, 16, 17, 18, 19, 21 are reverse recoded.

2. Word Recognition

Instructions: This part is to test how quick and accurate you are in recognizing whether a sequence of letters after the word American or the word Arab constitutes a meaningful word or not (e.g., "erdsaige" as disagree). Turn your dial to 0 if it is not a word. Turn your dial to 2 if it is a word.

- 1) Arab --- eubsa
- 2) American --- isnkt
- 3) American --- maclif (filler)
- 4) Arab --- clyku
- 5) Arab --- saesrc
- 6) American --- oivtm
- 7) Arab --- hyrsec (filler)
- 8) American --- aotnvcia
- 9) American --- luyng (filler)
- 10) Arab --- ecepa
- 11) Arab --- mofeder
- 12) Arab --- ranoht (filler)
- 13) American --- teloulp
- 14) American --- tesnoh
- 15) Arab --- nayog
- 16) Arab --- lenegp (filler)
- 17) Arab --- toyvrep
- 18) American --- amcelir
- 19) American --- natdicec
- 20) Arab --- lahteh
- 21) American --- ntobet (filler)

22) American --- nevahe

23) Arab --- lhtif

24) American --- rehec

25) Arab --- mijal (filler)

26) Arab --- mbob

27) American --- dareth

28) American --- capyh (filler)

***Note 1.** Among the 28 questions this section, number 3, 7, 9, 12, 16, 21, 25 and 28 are fillers.*

***Note 2.** Positive words after the prime word Arab are 4, 5, 10, 11 and 20. Negative words after the prime word Arab are 1, 15, 17, 23 and 26. Positive words after the prime word American are 8, 14, 18, 22 and 24. Negative words after the prime word American are 2, 6, 13, 19 and 27.*

***Note 3.** Response time in recognizing negative words (all together 10) are reverse coded.*