THE RELATIONSHIP BETWEEN CONTACT AND IMPlicit AND EXPLICIT 
ATTITUDES TOWARD HOMELESS PEOPLE

By

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ABSTRACT

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Carl A. Shoemaker

The goal of the current study was to examine implicit and explicit attitudes toward homeless people. More specifically, it was addressed how these attitudes were related to contact experiences with homeless people, measured in terms of exposure that was based on the amount of various forms of direct and indirect contact with homeless people and contact quality which was based on whether the contact was positive or negative with homeless people. It was hypothesized that more contact, in terms of both exposure and quality, would be associated with more positive implicit and explicit attitudes toward homeless people. Research is mixed regarding public attitudes toward homeless people, with some reporting generally positive attitudes, but other work finding negative attitudes. The discrepancy between these findings might be explained by social desirability effects that are often present with the use of explicit attitude measures. Implicit measures are not susceptible to such effects. In addition, implicit measures have been found to be better predictors of some social behaviors than explicit measures.

In this cross-sectional, correlational study, exposure to homeless people related to explicit but not implicit attitudes. Similarly, contact quality was only linked to explicit attitudes. The interaction between exposure and quality predicted neither attitude. These results are consistent with research on the positive association between contact and
explicit attitudes toward homeless people and different ethnic groups that have found a positive relationship between contact and attitudes. Results suggest that contact with homeless people may be beneficial to fostering positive attitudes toward homeless people, and that even negative contact with homeless people was found to relate to positive explicit attitudes toward them.
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INTRODUCTION

The purpose of this study was to examine the relationship between contact, defined by exposure and contact quality with homeless people, with implicit and explicit attitudes toward homeless people. By examining both implicit and explicit attitudes toward homeless people, it is the intent of this study to investigate whether discrepancies exist between the two types of attitudes in regard to homeless people. Additionally, this study is designed to examine how different types of contact relate to each type of attitude. This understanding will enable a better understanding of how contact with homeless people can potentially influence behaviors to benefit homeless people. In addition, knowing what kind of contact can relate to positive attitudes, and what kind of contact doesn’t will give insight into ways to create positive contact situations between homeless people and the public. Research has shown that people generally have a positive attitude toward homeless people (Lee, Farrell, & Link 2004; Kee, Minick, & Connor, 1999; Toro & McDonell, 1992), but others suggest that negative attitudes toward homeless people still exist (Phelan, Link, Moore, & Stueve 1997). The current study examined attitudes toward homeless people as measured by both implicit and explicit attitude measures, in relation to the amount of exposure with homeless people. It was hypothesized that more exposure would be associated with positive attitudes toward homeless people when measured with both implicit and explicit attitude measures. This is the first study examining implicit attitudes toward homeless people.
Attitudes Toward Homeless People

Homelessness is defined as the state of having no home or permanent place of residence (The Chamber’s Dictionary, 2000). Historically, homeless people have been stigmatized and ostracized (Phelan, et al., 1997). Contemporary research, however, shows that public attitudes are shifting from blaming homeless people for their situation to considering external factors such as low cost housing shortages, and economic instability as causes of homelessness (Tompsett, et al., 2003; Toro & McDonell, 1992; Lee, et al., 1990). This shift to structural explanations for homelessness may be a sign of more positive attitudes toward homeless people, and can be interpreted as representing increased empathy for them (Lee, et al., 1990). Supporting this claim, several studies demonstrated that people support policies directed at helping homeless people (Lee, et al., 2004; Tompsett, et al., 2003; Benedict, Shaw, & Rivlin, 1992; Lee, et al., 1990), and are willing to pay more in taxes to aid them (Link, et al., 1995; Toro & McDonell, 1992). Despite these shifts in attitudes, homeless people are still evaluated more negatively than individuals who are poor but are not homeless (Phelan, et al., 1997).

Some of these discrepancies may be explained by impression management when expressing explicit attitudes. People are often reluctant to state negative attitudes when completing an explicit attitude measure such as a survey (Greenwald & Banaji, 1995). For example, even though a participant might hold negative attitudes toward homeless people, he/she might recognize that expressing such attitudes is frowned upon, causing him/her to modify his/her responses. The present study employed both explicit and
implicit measures of attitudes, which potentially allows for a clearer picture of true attitudes toward homeless people.

**Contact Effects on Attitudes Toward Homeless People**

The contact hypothesis states that contact with outgroup members produces more favorable attitudes toward the outgroup (Allport, 1954). The contact hypothesis suggests that quality interactions with members of outgroups may be an effective way of fostering more positive attitudes. Allport (1954) argued that contact alone is not enough to improve one’s attitudes toward an outgroup, but that contact must be characterized by equal status, common goals, intergroup cooperation, and institutional support of the contact. Contact that meets these criteria promotes more positive attitudes toward outgroups than contact that does not. The positive effects of contact meeting these four conditions have been broadly demonstrated cross-culturally with a broad range of participants (Pettigrew & Tropp 2000, 2006; Wagner, van Dick, Pettigrew, & Christ, 2003; Pettigrew, 1997, 1998). Specifically, the meta-analysis done by Pettigrew and Tropp (2000) used studies with a wide range of participants and outgroups. The participants ranged from children to adults and from adolescents to college students, and the target groups ranged from disabled people to the mentally ill. Pettigrew and Tropp (2006) included studies that consisted of primarily college students or adults as participants, and over half of the studies used ethnic target groups. These two meta-analyses demonstrate that the contact hypothesis is supported for a wide range of participants along with a wide range of outgroups.
In addition to the wide range of samples and outgroups used in the previous meta-analyses, inter-group contact has been shown to be positively associated with attitudes within various groups in the United States and Western Europe. In the United States, the positive effect of contact has been demonstrated with White, Latino, Asian and African American college students and their in-group biases directed in relation to the other ethnic groups (e.g., Levin, van Laar, & Sidanius, 2003). Similarly, positive contact experiences related to better attitudes of White and African American college students toward one another (e.g., Stephan, et al., 2002). Contact between homosexuals and heterosexuals has been shown to relate to better attitudes towards homosexuals (e.g., Herek & Capitanio, 1996). Eller and Abrams (2003) documented contact between US college students with Mexicans while they were enrolled in several Spanish Language schools in Mexico, and found a positive relation between contact and attitudes toward one another. Additionally, contact between U.S. and Mexican college students has been shown to relate to positive attitudes toward one another (e.g., Stephan, Diaz, & Duran, 2000). Positive contact between college undergraduates and a mentally ill person is related to positive attitudes toward mentally-ill people (e.g., Desforges, Lord, Ramsey, & Mason, 1991).

These results are not limited to college students. A similar result for has been shown for Chinese elementary students in the U.S. and their attitudes towards the United States (e.g., Chang, 1973). Preschool children have displayed positive attitudes toward elderly people after they have engaged in cross-age contact with elderly people (e.g., Caspi, 1984).
The positive relationship between inter-group contact out-group attitudes have been shown in non-educational settings as well. Contact between White city residents in small cities in Rhode Island and Cambodian immigrants and Portuguese immigrants was related to positive attitudes held by the city residents toward Cambodian and Portuguese immigrants (e.g., Riordan, 1987).

These results are not limited to the United States. This relationship has been demonstrated for Italian university students and their attitudes toward Africans who were Italian immigrants (e.g., Voci & Hewstone, 2003), and for East and West German students and adults and their attitudes toward ethnic minorities in Germany (e.g., Wagner, van Dick, Pettigrew, and Christ (2003). Contact between German and Turkish school children with south Asian immigrants has been found to relate to positive attitudes held by the school children toward south Asian immigrants (e.g., Wagner, et al., 1989). This relationship has been found between majority group members of four West European countries and their attitudes toward major minority groups in their countries (e.g., Pettigrew, 1997). Similarly, contact between White Australians and Vietnamese people has been shown to relate to positive attitudes held by the White Australians toward Vietnamese people (e.g., McKay & Pittam, 1993). Contact in work situations between White and Black African workers in Africa has been found related to more positive attitudes toward one another (e.g., Bornman & Mynhardt 1991).

These examples show that contact has been found to relate positively to attitudes for samples ranging from student samples of different ethnicities in the United States and
Europe, to adult populations of different ethnicities in the United States, Europe, Africa, and Australia. This supports the external validity of the contact hypothesis.

There is, however, considerable evidence that contact which does not meet the conditions above is related to positive outgroup attitudes. For example, in a series of definitive meta-analyses on contact effects, Pettigrew and Tropp (2000, 2006) found that contact without institutional support produced positive effects on attitudes, albeit smaller effects than contact meeting all the requirements of optimal contact. Eller and Abrams (2003) demonstrated that frequent intergroup contact between Mexicans and students from the United States in a Spanish-language school that was not defined as positive or negative but only measured by the amount of contact had a positive effect on general evaluation of Mexicans by the U.S. students. In addition, they found that more contact related to better perceptions of contact quality. Aberson and McVean (2005) found this result as well in the context of the amount of contact, defined as amount of contact experiences currently and in the past with homeless people, and based on results from a path analysis, concluded that the amount of contact plays an important role in improving attitudes.

Pettigrew and Tropp (2006) found that the optimal conditions identified above are not always present or necessary for intergroup contact to have positive effects, but rather they act as facilitators that enhance or magnify the positive effects of contact. Additionally, their meta-analysis demonstrated that non optimal contact related to desired effects on attitudes. This is likely because contact at its very least is a form of exposure to others. Regarding attitudes toward homeless people, exposure to homeless people was
found to be related to more positive attitudes in the form of attributing homelessness to structural causes, and the view of homeless people as competent and non-threatening (Lee, et al., 2004). Aside from optimal contact, contact can take on other forms such as the observation of the out-group in public places, or vicariously through media coverage of the outgroup. These other types of contact can improve attitudes toward the outgroup when the outgroup isn’t available for direct contact (Lee, et al., 2004).

Non-optimal contact effects are particularly relevant to contact with homeless people. Contact with homeless people is often indirect, and the contact that does occur is usually negative and involuntary (Aberson & McVean, 2005; Lee, et al., 2004). In addition, the direct contact that occurs with homeless people is likely to not meet the optimal conditions. A common contact experience with homeless people involves a homeless person asking for money from a person. In this situation, the status difference between the two individuals is apparent, and institutional support for the contact is absent. Therefore, in the case of contact with homeless people, it is more appropriate to investigate the relationships between indirect forms of contact, such as exposure to homeless people (Lee, et al., 2004) and attitudes.

There is considerable evidence that supports the idea that exposure based on the amount of different types of direct and indirect contact is a good predictor of positive attitudes toward homeless people. Studies examining the number of daily sightings of homeless people have reported positive relationships between this form of contact and attitudes towards homeless people (e.g., Lee, et al., 2004; Alexander & Link, 2003; Tolomiczenko, Goering, & Durbin, 2001; Link, et al., 1995; Benedict, et al., 1992).
Lee, et al. (2004) demonstrated that contact defined in terms of the amount of personal exposure to homeless people, through daily sightings and conversations on the topic of homelessness with others, was related to positive attitudes toward the homeless. Data for their study consisted of a reasonably representative sample of adults. These results suggest that contact that is less than ideal can have positive relationships with attitudes.

Frequency of contact with immigrants (Voci & Hewstone, 2003), and with homeless people (Aberson & McVean, 2005), has been shown to relate to better attitudes toward those groups. Voci and Hewstone (2003) found that frequent and positive contact related to more positive intergroup attitudes toward immigrants. Apparently contact quantity is related to more positive contact experiences. For example, Aberson and McVean (2005) suggested that contact quantity promoted opportunities for positive quality contact. This same result was found in a study by Aberson and Haag (in press) that found that participants with high quantity contact with African Americans also tended to have better quality contact.

In studies of contact and prejudice, the casual relationship problem is present (Pettigrew, 1998). In other words, it can be argued that people who are prejudiced avoid intergroup contact. Similarly, it could be argued that people with positive attitudes toward outgroups actively seek intergroup contact, and that this accounts for the relationship between contact and prejudice. To address this issue, several studies have demonstrated with structural equation modeling to show the relationship path from contact to prejudice is stronger than that for prejudice to contact (e.g., Pettigrew, 1997; Wagner, et al., 2002).
Levin, et al. (2003) employed this same method to examine the causal relationship between contact and prejudice and found that both paths produced equal strength. Eller and Abrams (2003) demonstrated the causal relationship of contact and prejudice by using a longitudinal design showing that contact quantity assessed at one point in time lead to a reduced amount of prejudice two weeks later. The current study aims to examine the relationship between contact and attitudes toward homeless people.

*Implicit and Explicit Attitudes*

Individuals hold two types of attitudes, explicit and implicit (Greenwald & Banaji, 1995). Explicit attitudes consist of what a person is willing or able to state and can be misleading due to the respondent’s lack of insight or an unwillingness to state his/her true beliefs (Greenwald, et al., 2002). Implicit attitudes are judgments that are under the control of automatically activated evaluation (e.g., Greenwald, McGhee, & Schwartz, 1998). Unlike explicit attitudes, implicit attitudes are beyond the person’s control, and can reveal preferences of which he/she is unaware or unwilling to state (Fazio & Olson, 2003; Dovidio, Kawakami, & Gaertner, 2002; Greenwald, et al., 2002; Greenwald & Banaji, 1995).

The development of implicit attitudes measurement is one of the most important developments in social cognition research in the last decade (Hofman, Gawronski, Gschwender, Le, & Schmitt, 2005). Because implicit attitudes are not directly accessible to the person, they need to be measured using special methods such as subliminal priming, response latency, or associative categorization (Rudman, Ashmore, & Gary,
Such methods have been used to study stereotypes (e.g., Wittenbrink, Judd, & Park, 1997), attitudes toward other ethnic groups (e.g., Greenwald, et al., 1998), attitudes towards fatty foods (e.g., Roefs & Jensen, 2002), smoking (e.g., Swanson, Rudman, & Greenwald, 2001), genetically modified foods (e.g., Spence & Townsend, 2006), the elderly (e.g., Karpinski & Hilton, 2001), and product choices (e.g., Maison, Greenwald, & Bruin, 2004).

One form of implicit attitude measurement (e.g., the Implicit Association Task; Greenwald, et al., 1998) examines reaction times when pairing attitude objects with evaluative words. The extent that the category is associated with a certain attribute is reflected in the relative speed of discriminating the category with that attribute as opposed to the opposite attribute, and can be shown by shorter latencies between corresponding categories (e.g., white and positive), and longer latencies for non-corresponding categories (e.g., African American and positive; Greenwald, et al., 1998; Greenwald & Banaji, 1995). Because implicit attitudes are assessed in this manner, it is difficult for participants to control responses to these measurements (Steffens, 2004).

In addition to being measured differently, implicit and explicit attitudes also predict behaviors differently (Dovidio, Kawakami, Johnson, Johnson, & Howard, 1997; Wittenbrink, et al., 1997). Fazio and Olson (2003) describe the way in which attitudes affect behavior. In situations that provide opportunity and motivation to deliberate on a certain course of action, a person’s behavior can be directed by his/her explicit thought. In the absence of such circumstances, behavior will be spontaneous. Fazio and Olsen (2003) suggest that in the spontaneous process, attitudes are activated automatically (e.g.,
implicitly) when a person encounters an object to influence behavior. For example, when someone decides where to go on vacation, it is undoubtedly a decision to be made after weighing the costs and benefits of where to go and how much it will cost. Both opportunity and motivation to deliberate are present. Conversely, the process of deciding between two different flavors of breath mints most likely does not present itself as a situation that requires much deliberation. The deciding factor between whether an action is spontaneous or not is whether deliberative processing is activated or not.

It has long been thought that explicit attitudes are linked to behavior (Fishbien & Ajzen, 1975, 1974). Indeed, this is found when the situation strongly activates one’s attitude, or when the individual sees a clear link between his/her attitude and his/her behavior (Fazio & Olson, 2003; Greenwald & Banaji, 1995). However, recent studies find a discrepancy between expressed attitudes and social behavior (e.g., Dovidio, et al., 2002). Studies examining both implicit and explicit attitudes find that each type of attitude relates to different behaviors, with explicit attitudes having predictive validity for easy to control responses and implicit attitudes predicting responses that are difficult to control (e.g., Dovidio, et al., 1997). Simply put, implicit attitudes can predict behaviors that can’t be explained by explicit attitudes.

Supporting the idea that implicit and explicit attitudes are related to different types of behavior, White participants’ nonverbal behavior, such as eye blinking, towards African American confederates was shown to be linked to the White participants’ implicit but not explicit prejudice, but their verbal behavior was related to explicit prejudice only (Dovidio, et al., 1997). This result is consistent with another study which found that white
participants’ non-verbal behavior “friendliness” was related to their implicit prejudice (Dovidio, et al., 2002). More importantly though, it was non-verbal behavior that was related to the African American person’s perception of the White’s friendliness, indicating that implicit attitudes are linked to behaviors that may potentially influence intergroup interactions. Implicit attitudes have also been demonstrated to affect job applicant hiring behavior. For example, Rudman and Glick (2001) found that implicit gender stereotypes were indicative of female hiring prejudice, while their explicit gender stereotypes were not. They found that managers who exhibited automatic expectancies that women were nicer than men, were more likely to view agentic women as interpersonally unskilled, unlikable, and not dominating, thus not hiring those women for managerial positions.

Implicit attitudes have been shown to relate to overt behaviors as well, albeit those which are neither controversial nor personal. For example, implicit attitudes have been shown to relate to dieting behavior (Swanson, et al., 2001), food choice (Karpinski & Hilton, 2001), and soft drink preference (Maison, et al., 2004). Since implicit and explicit attitudes are shown to relate to behaviors under certain conditions, it may be the case that the best way to understand behaviors is to measure both types of attitudes.

In general, correlations between implicit and explicit attitudes are weak, suggesting that they represent distinct constructs (Fazio & Olson, 2003; Greenwald & Nosek, 2001; Karpinski & Hilton, 2001 Wittenbrink, et al., 1997). The more socially sensitive the topics of inquiry, the less implicit and explicit attitudes correspond
(Hofman, et al., 2005; Fazio & Olson, 2003; Greenwald, et al., 2002; Karpinski & Hilton, 2001; Nosek & Banaji, 2001; Greenwald, et al., 1998). For example, for attitudes regarding African Americans, correlations between implicit and explicit attitudes have been found to be weakly related (Aberson, Shoemaker & Tomollilo, 2004; Rudman, et al., 2001; Greenwald, et al., 1998). Alternatively, Roefs and Jansen (2002) found a positive correlation between participants’ implicit and explicit attitudes toward high-fat foods.

A recent meta-analysis examined studies using both implicit and explicit attitude measures (Hofman, et al., 2005). They found that the two types of attitude measures were most likely to correlate when the explicit measures used were similar to implicit measures in which they examined affective and relative attitudes instead of cognitive and absolute attitudes. Explicit attitudes expressed toward different social groups usually are deliberative and cognitive, suggesting that the lack of spontaneity afforded by the measures promotes low implicit – explicit correlations. Differences between implicit and explicit measures indicate that implicit measures are measuring different aspects of attitudes than explicit measures (Greenwald & Banaji, 1995).

**Relationship between Contact and Implicit Attitudes**

Contact’s relationship with explicit attitudes has been widely demonstrated; however, contact’s relation with people’s implicit attitudes has not been studied as much.

Some examples from this scant literature include Aberson, et al. (2004), who in two studies, demonstrated that participants with outgroup friends (either African
American or Latino) displayed more positive implicit attitudes towards the respective group than participants without such friends. Similarly, the interaction between quantity and quality contact related to more positive implicit attitudes towards African Americans (Aberson & Haag, in press). Specifically, it was found that participants with low amount of contact coupled with high quality contact with African Americans related to less implicit bias toward African Americans. To clarify the relationship between contact and implicit attitudes, Aberson, Barney, and Gaffney (2006) examined contact’s effects on attitudes in the context of feelings of threat and anxiety towards African Americans. Their results show that contact influences implicit attitudes by reducing feelings of threat caused by African Americans.

In another studies examining implicit attitudes towards African Americans, Rudman, et al. (2001) showed that students who were enrolled in a prejudice and conflict seminar with an African American facilitator displayed significantly less implicit bias towards blacks than did students who were not enrolled in such a seminar. Similarly, Lowery, Hardin, and Sinclair (2001) found that participants in the presence of an African American facilitator exhibited less implicit bias toward African Americans. Dasgupta and Greenwald (2001) found that participants displayed less pro-White bias after they had been exposed to names of positive African American exemplars (e.g., Martin Luther King, Jr.) along with negative White exemplars (e.g., Charles Manson).

Directly relevant to the present study is recent work examining the relationship between exposure and implicit attitudes. In three separate studies involving white students and measuring exposure as “opportunity for contact” with South Asian students,
more exposure was related to better implicit attitudes toward the outgroup. This finding is of particular interest as the present study employed a similar measure of exposure. This was the first published study to demonstrate that outgroup exposure has a relationship with implicit bias (Turner, Hewstone, & Voci, 2006).

Karpinski and Hilton (2001) describe contact’s relationship with implicit attitudes through an environmental association model that states implicit attitudes are the result of paired associations a person has experienced throughout his/her lifetime. This suggests that positive contact experiences should be related to more positive implicit attitudes. Consistent with this proposition, Turner, et al., (2006) found that exposure was positively related to the implicit attitudes

Research Hypotheses

The current study examined how implicit and explicit attitudes toward homeless people are related to the amount and quality of contact with homeless people. There are six hypotheses for this study, three focus on implicit attitudes and three focus on explicit attitudes.

Hypothesis 1. More contact exposure (quantity) with homeless people will be associated with more favorable implicit attitudes toward homeless people.

Hypothesis 2. Better contact quality with homeless people will be associated with more favorable implicit attitudes toward homeless people.

Hypothesis 3. The interaction between contact exposure and quality will be associated with more favorable implicit attitudes. Specifically, it is hypothesized that the
combination of high exposure and positive quality contact will have the strongest relationship with implicit attitudes.

Hypothesis 4. More contact exposure (quantity) with homeless people will be associated with more favorable explicit attitudes toward homeless people.

Hypothesis 5. Better contact quality with homeless people will be associated with more favorable explicit attitudes toward homeless people.

Hypothesis 6. The interaction between contact exposure and quality will be associated with more favorable explicit attitudes. Specifically, it is hypothesized that the combination of high exposure and positive quality contact will have the strongest relationship with explicit attitudes.
METHOD

Participants

The sample for this study consisted of 78 students from Humboldt State University, including 74 undergraduates and 4 graduate students (see Table 1). Participants were gathered from convenience sampling. Two-thirds of the study participants were women (67%), the largest ethnic group was white (65%) followed by Hispanic/Latino (15%), and 37% of the sample consisted of first year students. Ages ranged from 18 to 57 years old, with a mean of 21.9, and the majority (58%) between 18 or 19 years old. Undergraduate students received partial course credit for participating. This information is presented in Table 1.

To estimate the sample size needed for this study, prior research was reviewed dealing with contact and implicit attitudes (e.g., Aberson, et al., 2004) and assumed a medium effect size. Using the method recommended by Newton and Rudestam (1999), for regression analysis involving three independent variables, such as the current study, with a power of .80 and a medium effect size \((d = 0.50)\), a total of 77 participants would be needed for the study. The resulting sample of 78 participants, then, was a sufficient size to detect medium effect sizes for the relationship between contact and attitudes, if present.
Table 1

Sample Characteristics (n = 78)

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Men</td>
<td>26</td>
<td>33.3</td>
</tr>
<tr>
<td>Women</td>
<td>52</td>
<td>66.7</td>
</tr>
<tr>
<td>Ethnicity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>51</td>
<td>65.4</td>
</tr>
<tr>
<td>Hispanic/Latino</td>
<td>12</td>
<td>15.4</td>
</tr>
<tr>
<td>Asian/Pac. Islander</td>
<td>2</td>
<td>2.6</td>
</tr>
<tr>
<td>African American/Black</td>
<td>5</td>
<td>6.4</td>
</tr>
<tr>
<td>Other/Decline to State</td>
<td>8</td>
<td>10.2</td>
</tr>
<tr>
<td>Class Level</td>
<td></td>
<td></td>
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<tr>
<td>First Year</td>
<td>29</td>
<td>37.2</td>
</tr>
<tr>
<td>Sophomore</td>
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<td>23.1</td>
</tr>
<tr>
<td>Junior</td>
<td>9</td>
<td>11.5</td>
</tr>
<tr>
<td>Senior</td>
<td>18</td>
<td>23.1</td>
</tr>
<tr>
<td>Graduate student</td>
<td>4</td>
<td>5.1</td>
</tr>
</tbody>
</table>

Age: Mean (SD) 21.9 (6.7)

Measures

The study included three predictor variables (exposure and quality of contact, and the interaction of the two) and two dependent variables (implicit attitudes and explicit attitudes toward the homeless). In addition, each participant completed a series of demographic questions asking gender, age, race, and year in school (see Appendix A).
This study was correlational, and all the data were collected at the same time. All explicit data collected were based on self-report survey data.

The explicit “attitudes toward homeless people” measure contains nine attitude subscales that are standardized and then summed to create an overall attitude score. It contains 34 likert scale questions and was used previously by Lee, et al., 2004. Responses are scored on a scale from 1 to 8, with higher scores on the scale indicating positive explicit attitudes toward homeless people. The 9 scales are (a) structural causes (e.g., homelessness is caused by a shortage of housing), (b) individual causes (e.g., homelessness is caused by one’s own laziness), (c) role competence (e.g., most homeless people have good job skills), (d) perceived dangerousness (e.g., homeless persons have a propensity to violence), (e) positive emotions (e.g., I have feelings of sadness when I see homeless people), (f) lack of empathy (e.g., being homeless reduces everyday worries), (g) community burden (e.g., homelessness has a harmful impact on local businesses), (h) support of rights (e.g., the homeless should be able to sleep overnight in public places), and (i) willingness to sacrifice (e.g., I would be willing to pay more in taxes to help the homeless). Four of the nine scales (individual causes, perceived dangerousness, lack of empathy, and community burden) were reverse-scored so that higher scores indicate a more positive attitude toward homeless people. The internal consistency of the survey was $\alpha = .90$, which indicates acceptable reliability. All explicit attitude subscales had acceptable reliability except for the subscale for Role Competence ($\alpha = .35$). A copy of the survey is in Appendix B. This scale has been used previously to examine explicit attitudes toward homeless people (e.g., Lee, et al., 2004).
Contact exposure was measured using a 14-item exposure survey which covered four types of exposure: (a) information the person has obtained about homeless persons (e.g., number of television shows watched about the homeless), (b) the person’s observations of homeless people in public (e.g., frequency of seeing the homeless in your own neighborhood), (c) the person’s interaction with the homeless (e.g., have you ever worked or volunteered in a homeless shelter), and (d) whether or not the person himself or a close friend has ever been homeless. Higher scores on the exposure survey indicate more exposure to homeless people. This scale has been used previously to examine exposure to homeless people (e.g., Lee, et al., 2004). As scale items included inconsistent response options (e.g., 2 options for some questions, 4 for others) the scale scoring involved standardizing each item prior to analysis (Lee, et al., 2004). Using data from the current sample, the internal consistency of the exposure survey was $\alpha = .70$. This indicates an acceptable level of internal consistency. Two of the measure’s subscales showed low reliability. These were the Observation ($\alpha = .18$) and Interaction ($\alpha = .30$) subscales. A copy of the instrument is contained in Appendix C.

The measure of contact quality contained 10 items assessing whether or not the participant has ever been insulted, ridiculed, or harassed by a homeless person (adapted from Stephen, et al., 2002). This scale measures negative contact, with lower scores indicating more positive contact quality with homeless people. Again, using data from the current sample, the internal consistency of the quality of contact measure was $\alpha = .91$. A copy of the scale can be found in Appendix D.
A third variable examined the interaction of exposure and quality of contact. This interaction variable was created by multiplying together the centered variables of exposure and quality of contact (Aiken & West, 1991).

The Go-No-Go association task (GNAT) is a computer-based categorization task developed by Nosek and Banaji (2001), and was used as the implicit measure in the current study. Categorization tasks consisted of 96 stimulus items: 24 pictures of homeless persons, 24 pictures of household appliances, 24 words suggesting a bad meaning, and 24 words suggesting a good meaning. The good and bad words were adapted from Greenwald, et al. (1998). Pictures used to portray homeless persons and household items were found on the internet by the author. A list of the stimuli used is in Appendix G - I.

Participants began the GNAT by categorizing items. Target category labels appeared and remained on the screen during each categorization task. For example, a typical GNAT might begin by asking participants to categorize words as either belonging to the target of category “good” or not belonging to that category. Words flashed on the screen and participants were instructed to either press the space bar as quickly as possible for items belonging to the target category (go) or do not press the space bar for items that did not belong (no-go). If a good word like “love” appeared on the screen, participants were to hit the space bar, if a work like “war” appeared on the screen participants did not hit the space bar. The next trial began once the participant hit the space bar, or the response deadline (1000 ms or 750 ms, depending on the task) had been reached. Participants completed these blocks with individual target categories such as good, bad,
and homeless. For the homeless persons’ category, participants indicated whether the pictures presented were of homeless people or not. Each Block contained distracter trials (noise) which contained items from an alternate category (i.e., when *homeless persons* was the signal, pictures of *household items* was noise) or the alternate attribute (i.e., when *good* was the signal, *bad* was noise). Each participant was told that all pictures of people in the GNAT were homeless people. This was done so there wouldn’t be any confusion about whether the people were homeless or not.

The scored portion of each GNAT consisted of two blocks. In one block, participants were asked to hit the space bar (i.e., Go) if they saw either a picture of a homeless person or a good word. If they saw neither, they were to do nothing (i.e., No Go). In the next block, participants hit the space bar if they saw a picture of a homeless person or a negative word. Each block consisted of 56 trials. The first 16 trials were practice and were followed by a reminder screen before the participant completed the remaining 40 trials.

Two practice blocks were presented first to each participant in order to acquaint him/her with the task. During these practice blocks, participants learned to discriminate between two categories – *homeless persons* from *household items* and *good* from *bad*. These practice blocks consisted of 30 trials (half were targets, half were distracters) and used a 1000ms deadline. After the practice blocks, participants then completed eight GNATs with each GNAT consisting of two blocks. Four blocks measured automatic attitudes pairings of *homeless persons* and *good* and four blocks measured automatic pairings of *homeless persons* and *bad*. The GNATs were presented in counterbalanced
fashion (i.e., one participant would start with *homeless persons + bad*, the next would start with *homeless persons + good*).

Scoring of the GNAT is obtained from indexing performance based on signal detection theory’s estimate of sensitivity, d' (Green & Swets, 1966). This examines a participant’s ability to discriminate stimuli that correspond to either the designated attitude object or attribute from distracter stimuli. Negative blocks (*homeless persons + bad*) are subtracted from positive blocks (*homeless persons + good*). A resulting d’ score that was greater than 0 indicated a positive implicit attitude score.

The current study is the first time that the GNAT has been used to study implicit attitudes toward homeless people. Various recommendations from Nosek and Banaji (2001) were incorporated into the creation of the current GNAT, including the response deadline of 750 - 1000 ms, and the choice of the distracter category of *household items*. Sample photos and words that were used can be found in Appendix G - H. A split-half reliability of \( r = .33 \) was obtained for this measure.

With other implicit measures like the IAT (Greenwald, et al., 1998) and evaluative priming, attitudes toward one stimulus are obtained in relation to another stimulus (e.g., attitudes toward women in relation to men, attitudes toward flowers in relation to bugs). This produces an implicit attitude that can be inhibited by what the comparison stimulus is (e.g., implicit attitudes toward flowers in the context of bugs might be different than implicit attitudes toward flowers in the context of rodents). These comparison stimuli are based on a relevant comparison (e.g., when stimulus is African Americans the context stimuli is Whites). These relevant comparison stimuli are easily
recognizable by picture alone (i.e., a picture can clearly show if a person is White or African American). This relevant comparison is absent for homeless people because it is difficult to tell if a person is homeless or not based solely on a picture. By allowing implicit attitude measurement toward one stimulus at a time, the GNAT avoids the need of having relevant comparison stimuli (Nosek & Banaji, 2001). For this reason, it was decided that the GNAT be used in the current study.

Procedure

Each participant completed an informed consent form (See Appendix E) and was told that if he/she chose not to participate he/she would still receive course credit. Participation was anonymous. Approval for this study was obtained through Human Subjects Approval # 05-02.

Participants first completed either the computer GNAT portion of the experiment or the survey portion of the experiment. The order of the portions was counterbalanced so that half received the GNAT first and half received the survey first.

The implicit portion consisted of two sections. Each section contained 16 practice trials followed by 40 critical trials. The first section required simultaneous identification of stimuli that represent the target category (homeless persons) and a given attribute dimension (good). The second condition required identification of stimuli that represent the same target category (homeless persons) and an alternate attribute dimension (bad). Correct responses were coded when the participant correctly identified the picture or word as belonging to the target category, and when distracter items were ignored. An
error was made when a response was incorrectly matched. Correct responses were indicated with a green “O” that appears on the screen, and incorrect responses were indicated with a red “X” on the screen. The order of sections that was presented to the participant was counterbalanced.

Upon completion of the two main sections of the experiment, each participant was given a debriefing form (see Appendix F) that explained the purpose of the study, and his/her role in it. In addition, participants were asked if they had any questions regarding the experiment.

Statistical Analyses

Hypotheses 1-3 were tested using regression analysis. The dependent variable was implicit attitudes and the independent variables were exposure, quality of contact and their interaction. Hypotheses 4-6 were also tested using regression analysis. The dependent variable was explicit attitudes and the independent variables were exposure, quality of contact and their interaction.
RESULTS

Data Screening and Preparation

All data were examined for accuracy, missing data, and outliers. There were no missing data and no out-of-range values. Normality of score distribution was examined by obtaining histograms for contact exposure, contact quality, explicit attitudes and implicit attitudes overlaid with the normal curve. The only measure that did not meet normality assumptions was contact quality, which was positively skewed. A logarithmic transformation normalized this variable and was used in all analyses. The tolerance statistic was used to examine multicollinearity among the predictors (Howell, 2002). Contact exposure, contact quality and their interaction all had adequate tolerances. Data were examined for an order effect regarding the counterbalancing of measures. Neither explicit attitudes, \( t(67) = -0.8, p = .45, d = -0.09 \), nor implicit attitudes, \( t(67) = -0.1, p = .64, d = -0.13 \), differed by order. Data were examined for possible gender and ethnicity biases. No gender bias or ethnicity bias was found in reported scores for explicit attitudes, implicit attitudes, or either contact measure. There was however biases in reported scores based on the year of school of the participants. First year and sophomore students had less exposure contact with homeless people than did junior, senior and graduate students, \( t(76) = 3.25, p = .01, d = .74 \). Similarly, it was found that first year and sophomore students reported more positive explicit attitude scores than did junior, senior and graduate students, \( t(76) = 2.28, p = .03, d = .56 \).
Descriptive Statistics

Descriptive statistics for exposure, contact quality, explicit attitudes, and implicit attitudes are shown in Table 2. For exposure and explicit attitudes, descriptive statistics for their subscales are also presented in the table.

Scores on the implicit attitude scale showed that on average, participants indicated slightly negative bias toward homeless people. This is shown in Table 2.

Reported contact exposure with homeless people was fairly high on each of the four subscales and the total. Specifically, scores on the observation and interaction subscales were especially high, indicating frequent observation of homeless people in daily life. The average correlation between the four exposure contact subscales was .32. Each of the four exposure subscales was examined in detail to understand more about the type of contact exposure being reported, similar to the work of Lee, et al. (2004). Table 3 shows the percentage of participants who scored in the highest and lowest categories of each item within each exposure subscale, and signifies the variation among the types of exposure contact that was reported by the participants. For example, 96% of the participants reported that they saw a homeless person doing something negative, such as sleeping in public, acting strange, or looking through garbage. This is considerably higher than that reported by Lee, et al. (2004). At the same time, 81% of the participants reported observing a homeless person do something nice for someone, which is also considerably higher than that reported by Lee, et al. (2004). Ninety-two percent reported that they saw homeless people often in their neighborhood, again, much higher than that reported by Lee, et al. (2004). Sixty-five percent reported knowing one or more homeless
persons personally, and 17% reported that they had been homeless themselves at one point. Forty-five percent reported that they had worked or volunteered in a homeless shelter in the past. These last two exposure levels are similar to what was reported by Lee et al. (2004).
Table 2

**Descriptive Statistics for Independent and Dependent Variables, Including Subscales**

<table>
<thead>
<tr>
<th>Variable (# of items and subscale)</th>
<th>M</th>
<th>SD</th>
<th>Observed range</th>
<th>Possible range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contact exposure</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Observation (α = .18; 4)</td>
<td>9.2</td>
<td>0.9</td>
<td>7 to 11</td>
<td>4 to 11</td>
</tr>
<tr>
<td>Information (α = .62; 3)</td>
<td>6.8</td>
<td>1.9</td>
<td>3 to 11</td>
<td>3 to 11</td>
</tr>
<tr>
<td>Interaction (α = .30; 4)</td>
<td>7.9</td>
<td>1.5</td>
<td>4 to 10</td>
<td>4 to 10</td>
</tr>
<tr>
<td>Membership (α = .66; 3)</td>
<td>4.0</td>
<td>1.1</td>
<td>3 to 6</td>
<td>3 to 6</td>
</tr>
<tr>
<td>Total (α = .70; 14)</td>
<td>27.9</td>
<td>3.8</td>
<td>20 to 38</td>
<td>14 to 38</td>
</tr>
<tr>
<td>Contact quality (α = .91; 10 )</td>
<td>27.0</td>
<td>12.1</td>
<td>10 to 87</td>
<td>10 to 90</td>
</tr>
<tr>
<td>Explicit attitudes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Structural causes (α = .63; 4)</td>
<td>18.7</td>
<td>5.2</td>
<td>8 to 30</td>
<td>4 to 32</td>
</tr>
<tr>
<td>Individual causes (α = .77; 3)</td>
<td>14.0</td>
<td>4.2</td>
<td>4 to 24</td>
<td>3 to 24</td>
</tr>
<tr>
<td>Role competence (α = .35; 3)</td>
<td>14.6</td>
<td>2.8</td>
<td>5 to 20</td>
<td>3 to 24</td>
</tr>
<tr>
<td>Perceived dangerousness (α = .83; 6)</td>
<td>32.1</td>
<td>6.4</td>
<td>11 to 45</td>
<td>6 to 48</td>
</tr>
<tr>
<td>Positive emotions (α = .74; 3)</td>
<td>16.5</td>
<td>4.3</td>
<td>3 to 24</td>
<td>3 to 24</td>
</tr>
<tr>
<td>Lack of empathy (α = .56; 4)</td>
<td>23.6</td>
<td>4.6</td>
<td>10 to 32</td>
<td>4 to 32</td>
</tr>
<tr>
<td>Community burden (α = .71; 5)</td>
<td>20.6</td>
<td>5.9</td>
<td>7 to 40</td>
<td>5 to 40</td>
</tr>
<tr>
<td>Support of rights (α = .79; 3)</td>
<td>13.1</td>
<td>4.6</td>
<td>3 to 22</td>
<td>3 to 24</td>
</tr>
<tr>
<td>Willingness to sacrifice (α = .69; 3)</td>
<td>17.4</td>
<td>4.3</td>
<td>3 to 24</td>
<td>3 to 24</td>
</tr>
<tr>
<td>Total (α = .90; 34)</td>
<td>170.7</td>
<td>27.8</td>
<td>65 to 232</td>
<td>34 to 272</td>
</tr>
<tr>
<td>Implicit attitudes (α = .33)</td>
<td>-0.19</td>
<td>0.47</td>
<td>-1.61 to 0.78</td>
<td></td>
</tr>
</tbody>
</table>

*Note. For explicit attitudes the four negative subscales were reversed: (1) individual causes, (2) dangerousness, (3) lack of empathy, and (4) community burden. Untransformed values are presented to retain interpretability.*
Table 3

Percentage of Responses in Lowest and Highest Response Categories for Contact

<table>
<thead>
<tr>
<th>Exposure Subscales</th>
<th>Lowest scale point</th>
<th>Highest scale point</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Response</td>
<td>%</td>
</tr>
<tr>
<td>Information</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of TV shows watched about homeless</td>
<td>None</td>
<td>24</td>
</tr>
<tr>
<td>Number of newspaper, magazine articles read about the homeless</td>
<td>None</td>
<td>10</td>
</tr>
<tr>
<td>Frequency of discussing homeless with family, friends</td>
<td>None</td>
<td>13</td>
</tr>
<tr>
<td>Observation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frequency of seeing homeless in own neighborhood/town</td>
<td>Never</td>
<td>0</td>
</tr>
<tr>
<td>Number of homeless seen during average week</td>
<td>None</td>
<td>0</td>
</tr>
<tr>
<td>Saw homeless do something nice for someone</td>
<td>No</td>
<td>19</td>
</tr>
<tr>
<td>Saw homeless sleep on public benches, act strange, look through garbage, be drunk or high, hit someone, threaten someone</td>
<td>No</td>
<td>4</td>
</tr>
<tr>
<td>Interaction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Worked or volunteered at a homeless shelter</td>
<td>No</td>
<td>55</td>
</tr>
<tr>
<td>Number of times panhandled by homeless in past year</td>
<td>Never</td>
<td>5</td>
</tr>
<tr>
<td>Homeless did something nice for respondent in past year</td>
<td>No</td>
<td>42</td>
</tr>
<tr>
<td>Number of homeless known personally</td>
<td>None</td>
<td>35</td>
</tr>
<tr>
<td>Membership</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Respondent ever homeless</td>
<td>No</td>
<td>83</td>
</tr>
<tr>
<td>Member of family ever homeless</td>
<td>Yes</td>
<td>41</td>
</tr>
<tr>
<td>Close friend ever homeless</td>
<td>No</td>
<td>60</td>
</tr>
</tbody>
</table>
Reported contact quality was generally positive among participants. On this scale, lower scores represent more positive quality contact. Table 4 shows participants’ score distributions for each item on the scale. Items with the highest mean score were, item 4 “Have you ever been harassed…?” and item 10 “Have you ever been intimidated.”

Scores for the explicit attitude scales were more evenly distributed compared to the other measures used, but were generally positive toward homeless people. On the five positive attitude scales (structural causes, role competence, positive emotions, support of rights, and willingness to sacrifice), scores were slightly above the middle of the scales. Similarly, on the negative scales (individual causes, perceived dangerousness, lack of empathy, and community burden), scores were slightly above the middle of the range. These results are described in Table 2 above. The average correlation between the explicit attitude subscales was .13.
Table 4

Descriptive Statistics for Contact Quality, by Item

<table>
<thead>
<tr>
<th>Survey Item</th>
<th>M</th>
<th>SD</th>
<th>Observed range</th>
<th>Possible range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insulted</td>
<td>3.05</td>
<td>1.56</td>
<td>1 to 9</td>
<td>1 to 9</td>
</tr>
<tr>
<td>Ridiculed</td>
<td>2.69</td>
<td>1.59</td>
<td>1 to 9</td>
<td>1 to 9</td>
</tr>
<tr>
<td>Rejected</td>
<td>2.42</td>
<td>1.71</td>
<td>1 to 9</td>
<td>1 to 9</td>
</tr>
<tr>
<td>Harassed</td>
<td>3.83</td>
<td>1.86</td>
<td>1 to 9</td>
<td>1 to 9</td>
</tr>
<tr>
<td>Put down</td>
<td>2.40</td>
<td>1.61</td>
<td>1 to 9</td>
<td>1 to 9</td>
</tr>
<tr>
<td>Taken advantage of</td>
<td>2.51</td>
<td>1.56</td>
<td>1 to 9</td>
<td>1 to 9</td>
</tr>
<tr>
<td>Verbally abused</td>
<td>3.22</td>
<td>1.86</td>
<td>1 to 9</td>
<td>1 to 9</td>
</tr>
<tr>
<td>Threatened with harm</td>
<td>2.12</td>
<td>1.41</td>
<td>1 to 9</td>
<td>1 to 9</td>
</tr>
<tr>
<td>Physically harmed</td>
<td>1.29</td>
<td>0.97</td>
<td>1 to 9</td>
<td>1 to 9</td>
</tr>
<tr>
<td>Intimidated</td>
<td>3.44</td>
<td>2.03</td>
<td>1 to 9</td>
<td>1 to 9</td>
</tr>
</tbody>
</table>

Note. Survey question: Have you experienced the following types of treatment from the homeless? 9-point response scale, where 1 = never, 3 = rarely, 5 = occasionally, 7 = often, and 9 = very frequently.
Zero-order correlations are displayed in Table 5. Of note, are the positive correlations between explicit attitudes and the various forms of contact exposure, primarily with the interaction exposure and information exposure subscales. Contact quality correlated negatively with explicit attitudes. Both of these correlations show that more and better contact was positively associated with better explicit attitudes toward homeless people. Additionally, explicit attitudes related positively with both the interaction exposure subscale and the membership exposure subscale, indicating that these two forms of exposure contact were related to positive explicit attitudes, more so than the other two forms of exposure contact. Implicit attitudes were negatively correlated with contact exposure and negatively with the membership exposure subscale, indicating that having intimate experience with being homeless or having a friend or family member that is homeless relates to implicit attitudes toward homeless people in a way that the other forms of exposure do not. Exposure contact was related positively to contact quality. Specifically, contact quality was related positively with both interaction exposure and observation exposure to homeless people. This result could indicate that these two types of exposure contact are prone to producing negative quality contact. There was no relationship found between implicit and explicit attitudes.
Table 5

Zero-Order Correlations

<table>
<thead>
<tr>
<th>Variable</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
<th>14</th>
<th>15</th>
<th>16</th>
<th>17</th>
<th>18</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Explicit Attitudes</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Implicit Attitudes</td>
<td></td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>3. Contact Exposure</td>
<td>.47**</td>
<td>-.24*</td>
<td>1.00</td>
<td></td>
<td></td>
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<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Contact Quality</td>
<td></td>
<td></td>
<td>.28*</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>5. Interaction (exp X qual)</td>
<td>.05</td>
<td>.19</td>
<td>-.13</td>
<td>-.01</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Exposure: Information</td>
<td>.48**</td>
<td>-.16</td>
<td>.73**</td>
<td>.18</td>
<td>-.09</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Exposure: Observation</td>
<td>.20</td>
<td>-.05</td>
<td>.63**</td>
<td>.27*</td>
<td>-.04</td>
<td>.29*</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Exposure: Interaction</td>
<td>.33**</td>
<td>-.10</td>
<td>.76**</td>
<td>.32**</td>
<td>-.08</td>
<td>.36**</td>
<td>.38**</td>
<td>1.00</td>
<td></td>
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<td>.46**</td>
<td>-.32**</td>
<td>.07</td>
<td>.35**</td>
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### Table 5

Zero-Order Correlations, (Continued)

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<td>.37**</td>
<td>-.13</td>
<td>-.08</td>
<td>.44**</td>
<td>.06</td>
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<td>.09</td>
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<td>-.01</td>
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Note. *p*<.05, **p**<.001
Regression Analyses

Several regression analyses were performed, including one for explicit attitudes and another for implicit attitudes. For each analysis, the predictor variables were contact exposure, contact quality, and the interaction of exposure and quality. Additional regression analyses examined each explicit attitude subscale. Regression results are shown in Table 6.

Hypothesis 1 was not supported. Contact exposure did not predict implicit attitudes. Even though the relationship was not significant, the prediction afforded by the model including the three variables approached significance (p = .08), so the relationship between the two variables was examined further by correlation data. Those data showed that implicit attitudes related to the membership subscale of exposure contact, despite it not relating to the overall measure of exposure contact indicating that implicit attitudes possibly has a relationship with just that form of exposure contact. Additionally, there was no relationship between implicit and explicit attitudes. Hypothesis 2 was not supported as contact quality was not found to predict implicit attitudes.
Table 6.

Regression Analysis Summaries, Predicting Implicit and Explicit Attitudes

<table>
<thead>
<tr>
<th>Variable</th>
<th>Contact Exposure β</th>
<th>Contact Quality β</th>
<th>Interaction β</th>
<th>R²</th>
<th>F</th>
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<td>.08</td>
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<td>.02</td>
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<td>-.02</td>
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<tr>
<td>Support of Rights</td>
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<td>.16</td>
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<td>-.35**</td>
<td>.14*</td>
<td>.43</td>
<td>18.6**</td>
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</tbody>
</table>

* p < .05, ** p < .01
Consistent with Hypotheses 4, more exposure to the homeless predicted more positive explicit attitudes toward homeless people. Consistent with Hypothesis 5, contact quality predicted more positive explicit attitudes toward homeless people. Based on the standardized beta ($\beta$) weights shown in table 6, contact exposure was the strongest variable related to explicit attitudes. These results suggest that participants’ explicit attitudes toward homeless people were related to their amount of exposure and quality of contact with homeless people. Similarly, quality contact predicted positive explicit attitudes toward homeless people.

To further explore contacts’ relationships with explicit attitudes, individual regressions were performed on the nine explicit attitude subscales. Overall, when all three contact variables were entered simultaneously, the prediction was significant for all the subscales, except for Role Competence. For the attitude subscales that were found to relate to contact, in all the cases but one, contact exposure displayed the stronger relationship.

Overall, contact was able to best predict scores regarding the perceived dangerousness of homeless people and the willingness to help homeless people. Beyond these two aspects of explicit attitudes, exposure contact with homeless people was best able to predict supporting of individual causes as a cause of homelessness, and a lack of empathy towards homeless people. This indicates that people with high amounts of exposure contact with homeless people are also likely to endorse individual causes of homelessness and have a lack of empathy toward homeless people. Contact quality best
predicted attitudes regarding the support of homeless rights, and lack of empathy towards homeless people.

For all the explicit attitude subscales that were related to contact, exposure contact was related positively and contact quality was related negatively, indicating that both types of contact influenced better explicit attitudes toward homeless people.

In regard to the interaction between contact exposure and contact quality, Hypotheses 3 and 6 stated that a high amount of exposure coupled with good quality contact would produce both more positive implicit and explicit attitudes, respectively. These hypotheses were not supported. The interaction variable was unrelated to either implicit or explicit attitudes, in the regression analysis or the correlations.

Despite the absence of a significant relationship, data were further examined by breaking down interaction effects for implicit and explicit attitudes overall. Figures 1 and 2 analyze the relationship between contact exposure and contact quality and their relation to explicit and implicit attitudes. The graphs depict three levels of quality contact (low quality, medium quality, high quality) at two levels of exposure contact (low and high exposure) and the corresponding relation to attitude scores. The values for exposure and quality came from the centered variables of each. For the three levels of quality, low quality was a score one standard deviation above the mean for quality (0.18), medium quality was the mean for quality (0), and high quality was one standard deviation below the mean for quality (-0.18). As for exposure, the value used for low exposure was one standard deviation below the mean for exposure (-2.8), and high exposure was one standard deviation above the mean for exposure (2.8). The strength of the relationship
Figure 1. Contact interaction results for explicit attitudes. Regression lines created from high and low values of contact exposure, combined with high, mean, and low values of contact quality.
Figure 2. Contact interaction results for implicit attitudes. Regression lines created from high and low values of contact exposure, combined with high, mean, and low values of contact quality.
between exposure and quality was signified by the slope of the line that represents each interaction.

In regard to explicit attitudes, there was no difference between quality groups for the amount of exposure contact. All three slopes are similar, suggesting that the effect of exposure was the same for each contact group. However, for implicit attitudes, there is a noticeable difference between the contact quality groups. The steepest slope was for the low quality group, signifying that the impact of exposure was strongest for this group. For participants with low quality contact, exposure appears to be an important factor related to more positive attitudes.
DISCUSSION

Contact with homeless people was defined in terms of exposure and quality. Participants’ level of exposure to homeless people was quite high. The highest forms of exposure contact were both observing homeless people and interacting with homeless people. Participants also reported low levels of negative quality contact with homeless people.

Explicit attitudes towards homeless people were generally found to be favorable, falling slightly above the middle of the range for each item. This result is similar to other studies that have found generally positive explicit attitudes toward homeless people (Lee, et al., 2004; Tompsett, et al., 2003; Benedict, et al., 1992; Lee, et al., 1990). In addition, a majority of respondents listed structural causes of homelessness, as opposed to personal causes. This listing of structural causes, as opposed to personal causes as a reason for homelessness, shows sympathy for homeless people (Lee, et al., 1990).

In contrast to explicit attitudes, implicit attitudes toward homeless people were generally negative. Scores were not overwhelmingly negative, but were in the negative direction. This result of the explicit attitudes being positive and implicit attitudes being negative for the same construct is a typical finding for studies that examine socially sensitive attitudes (Fazio & Olsen, 2003; Greenwald & Nosek, 2001; Karpinski & Hilton, 2001 Wittenbrink, et al., 1997). Additionally, the correlation between explicit attitudes and implicit attitudes was not significant.
**Contact’s Relationship with Attitudes**

The primary question addressed by this study is how contact experiences relate to implicit and explicit attitudes toward homeless people. Contact exposure was the most consistent predictor of explicit attitudes. Contact quality also related to explicit attitudes, albeit generally less strongly and consistently than exposure.

Contrary to predictions regarding implicit attitudes, neither exposure nor quality predicted implicit attitudes. However, zero-order correlations showed that implicit attitudes were related to the membership form of contact exposure. Because of this relationship, it would be premature to discount contact’s relationship with people’s implicit attitudes toward homeless people. In fact, this suggests that stronger forms of exposure such as having a homeless family member are linked to implicit attitudes.

The implicit attitude results run counter to previous studies that found relationships between contact and implicit attitudes (e.g., Aberson, et al., 2004; Rudman, et al., 2001; Dasgupta & Greenwald, 2001) and between exposure and implicit attitudes (Turner, et al., 2006). One possible explanation for the lack of a significant finding is that the implicit measure itself created for this study had low reliability. The problem of low reliability is inherent in implicit measures and can impair their ability to relate with other variables (Fazio & Olson, 2003; Wittenbrink, et al., 1997; Poehlman, Uhlmann, Greenwald, & Banaji, 2005). The GNAT used in the present study is however, poor even by implicit measure standards (split-half \( r = .33 \)). Similarly, authors of the GNAT
reported low split-half reliability scores for their own uses of the measure, with an average of \( r = .20 \) (Nosek, & Banaji, 2001).

Consistent with predictions regarding contact effects on explicit attitudes, both exposure and quality were related to explicit attitudes. Of the two forms of contact, exposure was the stronger predictor. Information exposure, involving reading articles or and watching television programs about homelessness, provides knowledge about homeless people that can challenge stereotypes. Observing homeless people can bring about familiarity and can act to lessen negative feelings toward them. Interacting with homeless people can foster relationships with them which can produce positive attitudes (Lee, et al., 2004).

Broadly, results are consistent with research on the association between contact and explicit attitudes toward outgroups in the absence of optimal contact conditions (e.g., Pettigrew & Tropp, 2006; 2000) and more specifically to work demonstrating that contact exposure is linked to positive attitudes toward homeless people (e.g., Lee, et al., 2004; Tolomiczenko, et al., 2001; Link, et al., 1995; Benedict, et al., 1992).

Contrary to predictions, the interaction between contact quality and exposure contact was not related to either attitude measure. Previous research suggested that the interaction would have a desired relationship with attitudes (Voci & Hewstone, 2003; Aberson & Haag, in press). The interaction was, however, examined, and an interesting pattern emerged in regards to implicit attitudes. The impact of exposure was strongest for participants who had low quality contact with homeless people. For participants with low quality contact, more exposure related to better implicit attitudes. This suggests that, for
those participants who experienced low quality contact, a high amount of exposure may compensate for this and relate to less implicit bias towards homeless people. Perhaps, the amount of contact with the homeless plays a larger role than that of contact quality with homeless people. This trend is in line with results demonstrated by Aberson and Haag (in press) that found that contact quality had its biggest impact on implicit attitudes toward African Americans for participants who had a low amount of quantity contact with African Americans. However, because the current results were not significant, these specific conclusions only pertain to trends observed in the data. Perhaps with a larger sample size, the interaction relationship could have produced significant results. The interaction between quality and exposure should not be dismissed as having no relation with attitudes, and should continue to be of interest for future research.

The most common forms of exposure involved observing and interacting with homeless people. These forms of exposure strongly related to negative quality contact with homeless people. This result suggests that although exposure can be related to positive attitudes, exposure is also associated with negative contact quality. As negative contact quality is associated with worse attitudes toward other outgroups, this result points to a complex relationship between both forms of contact and attitudes.

Despite the overall negative quality of the contact with homeless people, explicit attitudes toward homeless people were quite positive. Further, implicit attitudes were shown to be negative. This contrasting set of attitudes reported is consistent with other studies that have examined implicit and explicit attitudes towards different ethnicities (Aberson, et. al, 2004; Greenwald, et al., 1998). In addition, the finding that despite the
amount of reported negative contact with homeless people, participants reported positive explicit attitudes, leads to the conclusion that contact with homeless people is different than contact with other outgroups, and that even negative contact with homeless people has the potential to foster positive attitudes toward them.

The relationship between the explicit and implicit measure of attitudes was not significant. Low correlations are typically found within topics that are highly sensitive, such as racial prejudice (Dovidio, et al., 2002; Karpinski, & Hilton, 2001; Swanson, et al., 2001; Greenwald, et al., 1998; Dovidio, et al., 1997; Wittenbrink, et al., 1997). However, a recent meta-analysis (Hofman, et al., 2005) examining the relationship between the two measures found that contrary to the above, that instead of correlations being affected by social desirability or introspection in regard to the subject matter, that the real components of their relationship had to do with measurement characteristics of the individual measures (i.e., methodological correspondence). An example of this could be that explicit measures that looked at affective attitudes toward an outgroup would be more likely to produce results similar to an implicit measure, which looks at attitudes from an affective standpoint. In addition Hofman, et al. demonstrated that the two measures were more likely to correlate in studies that employed a counterbalancing of the attitude compatible and attitude incompatible portions of the implicit measure. The current study counterbalanced the two implicit portions but still did not find a correlation between the two measures. Again, the poor GNAT reliability may be an issue here.

Lastly, the current study builds upon the findings of Lee, et al. (2004). Their study looked at the effects of exposure on explicit attitudes toward homeless people. This study
examined those same variables, and added the variables of contact quality and implicit attitudes. The current results add support to their previous findings, and show that in addition to exposure having a relationship with attitudes, contact quality is important for understanding attitudes toward homeless people. Further, the current research adds to the validity of the exposure contact and explicit attitude scales that were adapted from their study.

General Implications and Recommendations

The issue of homelessness is a problem throughout the U.S (Link, et al., 1995). Similarly, attitudes toward homeless people are very important for community well-being. The current research, along with previous studies that examined contact with homeless people, indicates that having homeless people visible in the city does not necessarily promote negative attitudes. Based on the results of the current study, the types of contact that are most likely to contribute to negative quality contact with homeless people are observing homeless people and interacting with them. These situations are likely to involve observations of negative behaviors that promote negative attitudes toward homeless people. Even though these situations can promote negative quality contact, the current results indicate that they are still positively related to explicit attitudes toward homeless people. Perhaps if homeless people were to be observed in more favorable settings such as community service programs or in a shelter, or interacted with in positive, instead of negative situations, this might help to produce even more pronounced positive explicit attitudes toward homeless people. Additionally, it was found
that informational exposure was related to positive explicit attitudes toward homeless people. Perhaps gaining information about homeless people prior to actual contact with them might aid in fostering positive attitudes toward homeless people.

The two contact measures used in this study were found to be strong predictors for explicit attitudes, and are recommended for future use. Prior studies that have employed contact exposure with homeless people measures have concluded that a more encompassing measure should be used that examines more aspects involved in contact with homeless people (e.g., Aberson & McVean, 2005). The current measure incorporated four aspects of contact with homeless people.

Limitations

The sample for this study consisted of college students in an area with a highly visible homeless population, of which a majority was White, and female. The extent of the generalizeability of the current results should be considered in this context. Although the study had enough cases to detect a moderate effect, a larger sample might have been able to detect smaller effects, including those of contact’s interaction. Overall, the implicit measure demonstrated unacceptably poor reliability, especially in relation to other implicit measures such as the Implicit Association Test (IAT, Greenwald, et al., 1998). The GNAT measure used in this study was created specifically for examining implicit attitudes toward homeless people and it was modeled after previous versions of the GNAT (Nosek & Banaji, 2001). It is not recommended that this specific version of
the GNAT be used in future research. In this regard, perhaps a version of the IAT, adapted for attitudes toward homeless people, would have produced more notable results.

One possibility of the cause of this poor reliability of the GNAT is that the pictures used could have inhibited the ability to elicit implicit attitudes directed toward homeless people. Specifically, in some of the pictures, it is not completely clear that the individual is homeless, and other variables such as gender and ethnicity are also present in the pictures, which could elicit implicit responses towards those characteristics, instead of the characteristic of being homeless. These other characteristics could have had an influence on the participant’s implicit reactions on an implicit level despite the fact that participants were informed that all pictures of people were of homeless people.

The measures of contact in this study were gathered through self-report measures. These measures rely on the participants’ ability and willingness to accurately report their level of contact with homeless people (Greenwald & Banaji, 1995). To the extent that participants were truthful in their responses, the data reflect accurate levels of participant contact with homeless people. Perhaps a more accurate portrayal of participants’ level of contact with homeless people can be gathered by direct observation of the contact, or by experimentally manipulating contact with homeless people.

Lastly, the study’s research hypothesis was described in the informed consent letter that was given to each participant at the beginning of each research session. This admission of the hypothesis could possibly have influenced participants’ scores on the contact and explicit attitude measures. However, this admission of the hypothesis
couldn’t have influenced participants’ implicit attitudes because these attitudes are uncontrollable and not susceptible to manipulation (Greenwald & Banaji, 1995).

One issue that was not examined in the current study, but which should be investigated by future researchers, is the relationship between both implicit and explicit attitudes and different types of behavior with homeless people. Another issue is that of directionality in regard to contact and its relation to attitudes. Because this study was correlational and not experimental, it is not possible to draw conclusions stating that contact led to better attitudes. It could be that better attitudes instead affected levels of contact. Future examinations of contact and attitudes should design studies that employ a longitudinal design that creates a period of time between the collection of reported contact and expressed attitudes. Similarly, an experimental design in which one group of participants was given contact with homeless people and a control group that wasn’t, with an assessment of attitudes after the experimental manipulation.

Conclusion

Overall, this study was successful in finding a relationship between explicit attitudes toward homeless people and contact with them. Contact with homeless people, both in terms of exposure and quality related to positive explicit attitudes toward homeless people. This study replicated previous results that have found similar findings between contact with homeless people and attitudes toward them.


AppenDix A

Demographic Variables

Please complete the following items:

1. Sex:
   Male  ______
   Female ______

2. Age:  ______

3. Race
   White  ______
   Hispanic / Latino  ______
   Asian / Pacific Islander  ______
   African American / Black  ______
   Other / Wish not to state  ______

4. Year in School:
   Freshman  ______
   Sophomore  ______
   Junior  ______
   Senior  ______
   Graduate  ______
APPENDIX B

Explicit Attitude Scale

Please indicate your thoughts on homelessness and its causes based on the following items. Circle your response.

*Indicates that item is reversed scored. Used in appendix version only.

1. Homelessness is caused by a shortage of housing.
1 2 3 4 5 6 7 8
Strongly Disagree Disagree Neutral Agree Strongly Agree

2. Homelessness is caused by one’s own laziness. *
1 2 3 4 5 6 7 8
Strongly Disagree Disagree Neutral Agree Strongly Agree

3. Most homeless people could take care of a home.
1 2 3 4 5 6 7 8
Strongly Disagree Disagree Neutral Agree Strongly Agree

4. Homelessness has a harmful impact on taxpayers. *
1 2 3 4 5 6 7 8
Strongly Disagree Disagree Neutral Agree Strongly Agree

5. Being Homeless provides an abundance of free time. *
1 2 3 4 5 6 7 8
Strongly Disagree Disagree Neutral Agree Strongly Agree

6. Homeless people can be identified by appearance alone. *
1 2 3 4 5 6 7 8
Strongly Disagree Disagree Neutral Agree Strongly Agree

7. Most homeless people would respect their neighbors’ property.
1 2 3 4 5 6 7 8
Strongly Disagree Disagree Neutral Agree Strongly Agree

8. Homelessness is caused by deficiencies in schools.
1 2 3 4 5 6 7 8
Strongly Disagree Disagree Neutral Agree Strongly Agree
9. The homeless should be allowed to beg in public places.
   1 2 3 4 5 6 7 8
   Strongly Disagree Disagree Neutral Agree Strongly Agree

10. Most homeless people have good job skills.
    1 2 3 4 5 6 7 8
    Strongly Disagree Disagree Neutral Agree Strongly Agree

11. Homelessness is caused by one’s substance abuse. *
    1 2 3 4 5 6 7 8
    Strongly Disagree Disagree Neutral Agree Strongly Agree

12. The homeless should be able to sleep overnight in public places.
    1 2 3 4 5 6 7 8
    Strongly Disagree Disagree Neutral Agree Strongly Agree

13. I would be willing to pay more in taxes to help the homeless.
    1 2 3 4 5 6 7 8
    Strongly Disagree Disagree Neutral Agree Strongly Agree

14. Homelessness has a harmful impact on local businesses. *
    1 2 3 4 5 6 7 8
    Strongly Disagree Disagree Neutral Agree Strongly Agree

15. Homelessness is caused by lack of government aid.
    1 2 3 4 5 6 7 8
    Strongly Disagree Disagree Neutral Agree Strongly Agree

16. Being homeless reduces everyday worries. *
    1 2 3 4 5 6 7 8
    Strongly Disagree Disagree Neutral Agree Strongly Agree

17. I don’t understand how someone could become homeless. *
    1 2 3 4 5 6 7 8
    Strongly Disagree Disagree Neutral Agree Strongly Agree

18. Homeless people are untrustworthy. *
    1 2 3 4 5 6 7 8
    Strongly Disagree Disagree Neutral Agree Strongly Agree
19. I would approve of a shelter or some kind of emergency housing in my neighborhood.

\[\begin{array}{cccccccc}
1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 \\
\text{Strongly Disagree} & \text{Disagree} & \text{Neutral} & \text{Agree} & \text{Strongly Agree} \\
\end{array}\]

20. The homeless should be able to set up tents in public places.

\[\begin{array}{cccccccc}
1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 \\
\text{Strongly Disagree} & \text{Disagree} & \text{Neutral} & \text{Agree} & \text{Strongly Agree} \\
\end{array}\]

21. Homelessness is caused by one’s irresponsible behavior. *

\[\begin{array}{cccccccc}
1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 \\
\text{Strongly Disagree} & \text{Disagree} & \text{Neutral} & \text{Agree} & \text{Strongly Agree} \\
\end{array}\]

22. Homeless persons have a propensity towards violence. *

\[\begin{array}{cccccccc}
1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 \\
\text{Strongly Disagree} & \text{Disagree} & \text{Neutral} & \text{Agree} & \text{Strongly Agree} \\
\end{array}\]

23. Homeless people are a threat to safety when allowed to gather in public spaces. *

\[\begin{array}{cccccccc}
1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 \\
\text{Strongly Disagree} & \text{Disagree} & \text{Neutral} & \text{Agree} & \text{Strongly Agree} \\
\end{array}\]

24. Homelessness has a harmful impact on neighborhoods. *

\[\begin{array}{cccccccc}
1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 \\
\text{Strongly Disagree} & \text{Disagree} & \text{Neutral} & \text{Agree} & \text{Strongly Agree} \\
\end{array}\]

25. Homeless people have the ability to inspire fear. *

\[\begin{array}{cccccccc}
1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 \\
\text{Strongly Disagree} & \text{Disagree} & \text{Neutral} & \text{Agree} & \text{Strongly Agree} \\
\end{array}\]

26. I would be willing to do volunteer work to help the homeless.

\[\begin{array}{cccccccc}
1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 \\
\text{Strongly Disagree} & \text{Disagree} & \text{Neutral} & \text{Agree} & \text{Strongly Agree} \\
\end{array}\]

27. Homelessness has a harmful impact on public parks. *

\[\begin{array}{cccccccc}
1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 \\
\text{Strongly Disagree} & \text{Disagree} & \text{Neutral} & \text{Agree} & \text{Strongly Agree} \\
\end{array}\]

28. I have feelings of sadness when I see homeless people.

\[\begin{array}{cccccccc}
1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 \\
\text{Strongly Disagree} & \text{Disagree} & \text{Neutral} & \text{Agree} & \text{Strongly Agree} \\
\end{array}\]
29. Compared to other people, homeless people are dangerous. *
1 2 3 4 5 6 7 8
Strongly Disagree Disagree Neutral Agree Strongly Agree

30. Homelessness is caused by deficiencies in the local economic system.
1 2 3 4 5 6 7 8
Strongly Disagree Disagree Neutral Agree Strongly Agree

31. I become angry at the number of homeless seen.
1 2 3 4 5 6 7 8
Strongly Disagree Disagree Neutral Agree Strongly Agree

32. In general, homeless people are dangerous. *
1 2 3 4 5 6 7 8
Strongly Disagree Disagree Neutral Agree Strongly Agree

33. Homelessness has a powerful impact on the quality of life. *
1 2 3 4 5 6 7 8
Strongly Disagree Disagree Neutral Agree Strongly Agree

34. I have feelings of compassion when I see homeless people.
1 2 3 4 5 6 7 8
Strongly Disagree Disagree Neutral Agree Strongly Agree
APPENDIX C

Exposure to the Homeless

Please indicate the level of contact that you have had with the homeless based on these items. Circle your answer.

1. The number of T.V. shows you have watched about the homeless.
   a. none
   b. 1 to 2
   c. 3 to 5
   d. 5 +

2. Have you ever seen a homeless person do something nice for someone?
   a. yes
   b. no

3. Have you ever worked or volunteered in a homeless shelter?
   a. yes
   b. no

4. How often do you see the homeless in your neighborhood/town?
   a. never
   b. sometimes
   c. often

5. How many homeless people have you known personally?
   a. none
   b. # _______

6. How many times have you been panhandled by a homeless person in the last year?
   a. never
   b. 1 to 5
   c. 6 to 9
   d. 10 +
7. Has a member of your family ever been homeless?
   a. yes
   b. no

8. How often do you discuss homelessness issues with friends and/or family?
   a. never
   b. sometimes
   c. often

9. Has a homeless person done something nice for you in the past year?
   a. no
   b. yes

10. Was there a time in your life when you were homeless?
    a. no
    b. yes

11. The number of articles you have read about the homeless.
    a. none
    b. a few
    c. several
    d. a lot

12. Approximately how many homeless people do you see in an average week?
    a. none
    b. 1 to 10
    c. 15 to 50
    d. 50+

13. Have you ever had a close friend who was homeless?
    a. no
    b. yes
14. Have you ever seen a homeless person doing something negative, like sleeping on a bench, acting strange, looking through the garbage, being drunk or high, hitting someone or threatening someone?

   a. none
   b. # ______
APPENDIX D

Contact Quality with the homeless

Experiences with the homeless. Please indicate how frequently you have experienced the following types of treatment from the homeless in general. Please circle your response.

1. Been insulted.
   1 2 3 4 5 6 7 8 9
   Never  Rarely Occasionally Often Very Frequently

2. Been ridiculed.
   1 2 3 4 5 6 7 8 9
   Never  Rarely Occasionally Often Very Frequently

3. Been rejected.
   1 2 3 4 5 6 7 8 9
   Never  Rarely Occasionally Often Very Frequently

4. Been harassed.
   1 2 3 4 5 6 7 8 9
   Never  Rarely Occasionally Often Very Frequently

5. Been put down.
   1 2 3 4 5 6 7 8 9
   Never  Rarely Occasionally Often Very Frequently

   1 2 3 4 5 6 7 8 9
   Never  Rarely Occasionally Often Very Frequently

7. Been verbally abused.
   1 2 3 4 5 6 7 8 9
   Never  Rarely Occasionally Often Very Frequently

8. Been threatened with harm.
   1 2 3 4 5 6 7 8 9
   Never  Rarely Occasionally Often Very Frequently

   1 2 3 4 5 6 7 8 9
   Never  Rarely Occasionally Often Very Frequently

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APPENDIX E

Informed Consent Letter

I hereby let Carl Shoemaker carry out the following research on me for experimental purposes. In addition, I declare that I am 18 years of age or older.

The experiment will take place on the bottom floor of Harry Griffith Hall room 113 on the HSU campus August 20, 2005 and November 20, 2005, and will take approximately an hour to complete. The purpose of the experiment is to investigate whether or not contact with the homeless has any affect on participants’ attitudes towards the homeless. Each participant will receive course credit for their time spent completing the experiment.

I will complete a 3-part survey in which I will indicate various attitudes towards the homeless, my level of contact in various situations, as well as providing demographic information about myself. In addition, I will complete a computer-based measure that assesses attitudes towards the homeless. The procedure does not pose any risk and/or discomfort. There are no benefits associated with participation.

This information was explained to me by Carl Shoemaker.

I understand that he will answer any questions I may have concerning this investigation or the procedures at any time. I also understand that my participation is entirely voluntary and that I may decline to enter this study, or may withdraw from it at anytime without jeopardy of my receiving credit for my participation. I understand that the investigator may terminate my participation in the study at any time.

The materials used in this experiment will not have a name or any other identifying features attached to it. The written portions of the experiment will be kept in a locked file cabinet while the research is conducted, and after five years will be destroyed.

If I have any questions regarding any of the materials used during my participation, I can contact Carl Shoemaker at (707) 822 – 7870 or cas23@humboldt.edu. The faculty advisor is also available, Dr. Chris Aberson at (707) 826 – 3670 or cla18@humboldt.edu.

Participant’s Name (Printed): _______________________

Participant’s Signature: _________________________

Date: ______________________
APPENDIX F

Debriefing Form

Dear Research Participant,

Thank you very much for participating in the current study. This research focuses on the effects of contact with the homeless, and how it influences attitudes toward the homeless. Two types of attitudes are under investigation; implicit and explicit. Explicit attitudes are those that can be articulated to someone, and can be expressed on a written questionnaire. It is currently thought that these types of attitudes and especially those on questionnaires can be influenced by participant biases and their social desirable tendencies and, that implicit attitudes are more subtle and can’t be influenced by such biases.

The intention of this study is to examine participants’ implicit attitudes toward the homeless. This is important so we can measure subtle attitudes toward the homeless that can have a direct impact on our interactions with them. There is an existing body of literature examining the effects of contact with the homeless. While these reports generally show positive results, this is the first study to my knowledge investigating implicit attitudes toward the homeless.

At the conclusion of this study, you may get information on the overall results of the study; however, your individual results will not be available. Any questions you may have regarding this project, or your participation in it can be directed towards myself cas23@humboldt.edu or at (707) 822-7870 or my faculty advisor Dr. Chris Aberson at cla18@humboldt.edu or (707) 826 3670.

Thank You for your participation.

Carl Shoemaker
APPENDIX G

Examples of Homeless photos used in GNAT
APPENDIX H

Examples of household item photos used in GNAT
APPENDIX I

Words used in GNAT

Good:

beautiful, celebrating, cheerful, excellent, excitement, fabulous, friendly, glad, glee,
good, happy, joyful, laughing, liking, lovable, marvelous, pleasure, smiling, splendid,
superb, paradise, terrific, triumph, wonderful

Bad:

Angry, bad, brutal, destroy, dirty, disaster, disgusting, dislike, evil, gross, hate, horrible,
humiliate, nasty, noxious, painful, revolting, sickening, terrible, tragic, ugly, unpleasant,
yucky