1976

Anonymity and attitude similarity as determinants of helping behavior of whites toward blacks

David William Wilson
Iowa State University

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Iowa State University, Ph.D., 1976  
Psychology, social  

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Anonymity and attitude similarity as determinants of helping behavior of whites toward blacks

by

David William Wilson

A Dissertation Submitted to the Graduate Faculty in Partial Fulfillment of The Requirements for the Degree of DOCTOR OF PHILOSOPHY

Major: Psychology

Approved:

Signature was redacted for privacy.

In Charge of Major Work

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For the Major Department

Signature was redacted for privacy.

For the Graduate College

Iowa State University
Ames, Iowa

1976
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Introduction

There has been in recent years a growing interest in the topic of helping behavior (cf. Krebs, 1970; Latane & Darley, 1970; Berkowitz, 1972; Staub, 1974; Huston & Korte, 1976). Researchers have been concerned with delineating those factors that are important in determining whether or not a person in need of help will in fact receive it. One category of studies on helping behavior includes those which have looked at the effects of characteristics of the victim or person in need of help. Within this category, increasing attention has been given to the study of the influence of one's race on receiving help.

It is not surprising that researchers have considered race to be an important determinant of helping behavior given the wide variety of evidence of prejudice and discrimination against blacks in our white society. The psychological literature, itself, provides some indication that blacks are discriminated against with regard to aggressive behavior (e.g., Donnerstein, Donnerstein, Simon, & Ditrichs, 1972) as well as in mixed-motive games (e.g., Cederblom & Diers, 1970). Whites are more aggressive and more competitive toward blacks than toward other whites. In more naturalistic settings, data exist showing that blacks are discriminated against with respect to apartment availability (Donnerstein, Donnerstein, & Koch, 1975). Rubovits and Haehr (1973) found
that white teachers responded differently to white and black junior high school students who had been labeled gifted. Blacks were more likely to be ignored and criticized, and less likely to be praised. At an attitudinal level, a variety of findings indicate that whites tend to express more positive attitudes toward other whites than toward blacks (e.g., Rokeach, 1960; Williams, 1965; Sigall & Page, 1971).

It is hardly necessary to cite such evidence to show the negativism that exists toward blacks. Such behavior on the part of whites can be gleaned from any black autobiography or from simply witnessing daily events in our society. As Katz (1976) has pointed out, "scarcely a day goes by without new documentation" (p. 3) that whites discriminate against blacks. As Katz notes, we see and hear reports of whites dynamiting schoolbuses to be used for integration programs, of the shooting of an off-duty black policeman who is mistaken for a thief, of involuntary sterilization of black teenage girls, and of the use of a black, untreated "control" group in a longitudinal study of syphilis. Simply put, we are indeed a racist people or as Martin Luther King said, white America is "poisoned to its soul by racism."

Given the evidence described thusfar, one would predict that with regard to helping behavior, whites would help other whites more than they would help blacks. Research on interracial helping, however, has led to rather diverse
findings. Some studies show that blacks are helped less than whites, some that blacks and whites are helped equally, and yet others that show that blacks are helped more than whites. Several potential interpretations of these findings can be found in the interracial helping literature. These past interpretations in addition to several "theories" of interracial helping will first be reviewed and it will then be argued that none of these explanations adequately account for the findings and that the data can best be explained in terms of the anonymity or nonanonymity of the helping response.

Current interpretations and theories of interracial helping

Wispe and Freshley (1971) argued that perhaps the results of interracial helping studies depend on how much time subjects have to think about assisting or not assisting. If subjects have time to think about their decision, Wispe and Freshley believe that blacks will be helped less than whites while no race difference will occur if subjects do not have time to think about their decision. The validity of this interpretation has been lessened with the findings of more recent work. It could be argued that in many of the interracial helping studies (e.g., Thayer, 1973; Lerner & Frank, 1974b; Bickman & Kamzan, 1973), subjects did have time to think about their decision and yet blacks were not discriminated against. And as Wispe and Freshley (1971) them-
selves noted, there are studies in which subjects did have time to consider their decision and they did help whites more than blacks (e.g., Bryan & Test, 1967; Piliavin, Rodin, & Piliavin, 1969; Gaertner, 1975; Gaertner & Bickman, 1971).

Wegner and Crano (1975) have contended that the divergent findings can be attributed to the lack of appropriate experimental design tactics with their main argument being that most studies have not used a complete factorial combination of race and sex of both victim and bystander. It is indeed true that a majority of the past studies have not met this criterion. However, not all researchers have wished to study the behavior of blacks since they may have been more interested in discovering evidence of white racism. If one ignores the variable of race of subject, one finds that nearly half the studies have used a factorial combination of sex of victim and sex of subject while also of course examining race of victim. Wegner and Crano’s criticisms would imply that the reason we obtain one particular finding is because a female victim, for example, was used with only male subjects while a discrepant result occurs due to our using perhaps a male victim with female subjects. A close inspection of the past studies can quickly shed some light on the validity of this criticism. If which sex of victim and which sex of bystander used in the study is hypothesized to be the cause of the discrepancies, then all studies using
both sexes of victim and bystander should produce similar results. In actuality, however, all of these studies have not produced consistent findings (Gaertner, 1973; Thayer, 1973; Clark, 1974; Franklin, 1974; Lerner & Frank, 1974a; 1974b; Benson, Karabenick, & Lerner, Note 1; West, Whitney, & Schnedler, 1975; Wegner & Crano, 1975; Dutton, 1973). There seems to be no evidence to argue that discrepant results can be interpreted in light of the sex of victim or bystander. Other variables apparently are more important.

According to West et al. (1975), same-race helping should occur when an emergency is not severe and when the costs for helping and for not helping are low or moderate. Severe emergencies or high costs presumably minimize the relative effects of race. Their reasoning is derived from the Piliavins' model of helping (e.g., Piliavin & Piliavin, 1972). The authors state that a person of the same race is helped more because there is more perceived similarity which then leads to an experiencing of greater distress and thus a greater likelihood of a helping response. Furthermore, West et al. argue that the costs of helping someone of the same race are probably seen as lower in that a person is apt to feel less likely of being hurt or embarrassed by this person and thus will be more likely to help. It is not clear, however, why this necessarily should be the case. West et al. established nonsevere, low costs conditions in their studies
and found evidence of same-race helping. They did not, though, demonstrate that same-race helping decreases in conditions other than nonsevere, low costs ones. Regardless of this, it seems that several past studies do not conform to their hypothesis. For example, conditions in the studies of Piliavin et al. (1969) and Gaertner (1975) could be described as severe and as having high costs for helping and yet race effects were found. It remains to be seen whether or not such a model can predict and account for interracial helping results.

Katz, Cohen, and Glass (1975) believe that blacks will receive more assistance than whites in situations where they seek aid for socially valued goals. According to the authors' reasoning, whites would help blacks more in order to reinforce the black's conformity behavior toward socially valued goals. Or, the authors state, it could be that a white is motivated to defend a self image as a fairminded person when faced with a black who displays behavior contrary to one's stereotype of blacks. Although Katz et al. found support for their notions, such reasoning cannot account for some of the existing literature on interracial helping. Black solicitors for the Salvation Army in the Bryan and Test (1967) study were displaying socially valued behavior but yet they received fewer donations than did whites. In work by Dutton and his colleagues (Dutton & Lake, 1973; Dutton &
Lennox, 1974), blacks and whites panhandled white subjects for money which surely cannot be considered a socially desirable behavior but still blacks were helped more than were whites. Blacks have also been helped more than whites in several other studies where blacks were not necessarily behaving in a socially desirable manner (Thayer, 1973; Lerner & Frank, 1974). All in all, then, it could be argued that even though having blacks display socially valued behavior may increase helping towards them, it appears that this hypothesis does not help integrate past literature, most of which has involved behaviors most likely neutral on a social desirability continuum.

Gaertner (1975) explored the manner in which attitudes mediate helping behavior toward blacks. It is possible that attitudes directly influence one's decision to help or not help a victim in that one consciously bases this decision on the victim's race. Alternatively, it may be that one's attitude indirectly influences the decision to help or not help by affecting one's perceptions of the degree to which help is needed. That is, if a person holds a negative attitude toward the victim, he or she may be inclined to define the situation as one in which help is unnecessary. The implication of this latter model is that in ambiguous situations where it is easier to define the situation as one not requiring help, blacks will be helped less than will whites.
However, in unambiguous settings where the need for help cannot easily be misinterpreted, race will presumably not affect helping. Such theorizing constitutes a potential explanation of past studies. It is true that many of the studies in which blacks were helped less involved the use of what has been called the "wrong number technique" in which a subject receives a wrong number call and then is asked to make a phone call for the "victim." As Gaertner (1973) has pointed out, subjects may tend to perceive the call as a prank in which case the need for help could be interpreted as unnecessary. However, in studies by Benson et al. (Note 1), Bryan and Test (1967), Piliavin et al. (1969), and West et al. (1975), the need for help was not ambiguous and yet whites did help blacks less than other whites.

Finally, Dutton (1973) has offered a theory of reverse discrimination which states that given specified conditions, whites will treat a minority group more positively than other whites. These conditions are: (1) the white must believe that all races should be treated equally, that racial discrimination is unjust, and that he or she does not discriminate, (2) the white must perceive the minority group member with whom he or she is interacting as a member of a racial group that is discriminated against, and (3) the interaction between the white and the minority group member must be trivial in nature, i.e., it must be short term and must re-
quire little effort on the part of the white. Dutton argues that if a white wants to think of him- or herself as a person who does not discriminate against other races, he or she will act in such a way as to maintain this self image by acting favorably toward the minority group member. While Dutton and his colleagues have found much support for the theory using a Canadian population, little supportive evidence has been found in studies using American subjects. In only a few such studies (Thayer, 1973; Lerner & Frank, 1974a; Katz et al., 1975) have there been any findings showing blacks being helped more than whites. Perhaps in the majority of American studies, prerequisites for reverse discrimination were not being met. Surely most helping measures which have been used have been trivial in nature and surely, subjects have perceived blacks as a group which is discriminated against. A possible problem is that the white Americans in most of these studies have not believed that all races should be treated equally and/or that they do not themselves discriminate. Further work in this area is obviously needed in order to better understand these issues. It could be that Dutton's findings are only valid for the Canadian population since as Gaertaer (1976) has pointed out, Canada has a relatively low density black population, and is relatively free of black-white tensions.
Anonymity as a determinant of interracial helping

It is clear that none of the above interpretations can adequately account for the diverse findings in the interracial helping literature. A variable which possibly can better account for much of the existing data is that of anonymity. A review of the literature will show that under anonymous conditions, blacks are helped less than whites, while blacks are helped equal to or more than whites under nonanonymous conditions. The usefulness of anonymity as a potential determinant of interracial helping has been suggested by Donnerstein and Donnerstein (1972). Anonymity, as it is discussed here, is operationally defined as it is in research on deindividuation (e.g., Zimbardo, 1969). That is, anonymity means that an individual lacks identifiability. This lack of identifiability can be created in a variety of ways such as having subjects wear bulky overcoats and hoods and not be identified by name (e.g., Zimbardo, 1969) or simply by having one's name and address remain unknown while interacting with someone unfamiliar (e.g., Diener, Fraser, Beaman, & Kelem, 1976). The important point is that anonymity essentially means that a given behavior cannot easily be associated with a given individual. In the context of an interracial helping study, an anonymous condition would be one where a person could not easily be identified as one who does or does not help blacks.
A more specific issue related to anonymity is the problem of to whom the individual is anonymous or nonanonymous. That is, it is possible for an individual to be anonymous to himself or herself in the sense meant by LeBon's (1960) concept of the collective mind as well as by Zimbardo's (1969) deindividuation theory. It is not this type of anonymity which is being dealt with here. It is also feasible for an individual to be anonymous or nonanonymous to the person in need of help and furthermore, one can be anonymous or nonanonymous to other people, other than the needy person, who may or may not be present in the helping situation. These various sources of anonymity imply different mechanisms that may be responsible for mediating the race-helping relationship. For instance, if anonymity to the victim or needy person is most important, then the implication is that whites perhaps fear some repercussions from blacks should they not be helpful toward them. Evidence that in fact whites do fear retaliation from blacks has been provided by Donnerstein et al. (1972). In their study, whites paired with black targets expected higher levels of aggression from the target than did subjects paired with white targets. Further support was shown in that whites delivered more direct aggression to blacks than to whites under conditions of nonretaliation while blacks received less direct aggression than whites when there was potential retaliation. In addition, more direct
aggression was given to blacks than whites under anonymity while no race difference occurred under nonanonymity. Perhaps, then, whites do not discriminate in terms of helping in nonanonymous conditions due to a fear of retaliation. Still further evidence was provided in a study by Donnerstein and Donnerstein (1972) in which whites delivered higher rewards (points exchangeable for money) to a black under conditions of potential retaliation than when retaliation was not to occur. Blacks received higher levels of reward than whites under retaliation conditions while the opposite occurred under nonretaliation. All subjects were anonymous to the target person. It should be noted that although the Donnerstein and Donnerstein (1972) study dealt with prosocial behavior, it is not entirely clear if their "rewarding" measure should be considered to be helping behavior as it is usually defined since the rewarded target person in their study was not said to be needy of help in any way.

Another possible mechanism involved in anonymity-nonanonymity is that of potential social censure. Conceivably, whites fear that other whites in their immediate environment will either think poorly of them or punish them in some way if they do not help blacks and whites equally, thus leading to nondiscrimination under nonanonymous conditions. Donnerstein and Donnerstein (1973) examined the variable of censure and found that aggression toward blacks
was lower when this aggression would be made known to an ingroup member (the experimenter) than when it would not. Furthermore, under noncensure conditions, a black target received more direct aggression than did a white target while the opposite result occurred under potential censure conditions.

It is possible that either or both of these factors could operate under nonanonymous conditions. Perhaps if either of them is operating, discrimination will not occur. A survey of the interracial helping studies shows that in some research using nonanonymous helping, retaliation is feasible while social censure is unlikely (e.g., Thayer, 1973), while in other research (e.g., Lerner & Frank, 1974b), retaliation is not possible but social censure is, while in still other studies (e.g., Wispe & Freshley, 1971; Wegner & Crano, 1975), both retaliation and censure are conceivable. It was not the purpose of the present study to delineate the relative importance of these factors but rather to deal with anonymity-nonanonymity as a global concept that includes both operations. Further research would be necessary to better isolate the possible mechanisms of this variable.

The discussion thusfar with regard to anonymity has focused on potential mediators. It is also important to review what evidence exists that implicates anonymity as a possible determinant of white helping toward blacks. First,
as mentioned previously, Donnerstein et al. (1972) found that whites delivered higher direct aggression to blacks than to whites under anonymous conditions but not under nonanonymity. Other pertinent data come from Dutton and Yee (1974) who had their subjects assign adjective trait ratings to photographs of Oriental and white persons under anonymous or nonanonymous conditions and in the presence of a white or an Oriental experimenter. The results indicated that both liberal and conservative subjects rated Oriental photographs more positively than white ones under nonanonymous conditions. Under anonymity, this difference diminished for liberals and was reversed for conservatives. It seems from this evidence, then, that anonymity does tend to foster discrimination toward minority group members. Hence, anonymity may prove to have explanatory power as a possible mediator of the discrepant results of interracial helping research.

In summary, one purpose of the present study was to determine if the variable of anonymity-nonanonymity can account for past findings with regard to the helping of whites toward blacks. It is proposed that under conditions of anonymity, whites will help other whites more than they will help blacks while this difference will not occur under conditions of nonanonymity. To the extent that individuals are nonanonymous, they will be more egalitarian since discrimination is frowned upon in society by both blacks and whites.
Research on interracial helping will now be reviewed in order to show support for such a proposition.

Review of past literature on interracial helping

Although many of the past studies on interracial helping have included both black and white subjects, the present review will be concerned with the behavior of whites only. An examination of this research indicates that the findings tend to fall into one of three categories: (1) blacks are helped less than whites, (2) blacks and whites are helped equally, or (3) blacks are helped more than whites. At the same time, these studies can be categorized as to whether they utilize an anonymous or a nonanonymous measure of helping. It will be shown that in those studies involving anonymous helping, blacks are helped less than whites while in studies involving nonanonymous helping, blacks are helped equal to or more than whites. In demonstrating this relationship, the various experiments will be categorized and discussed in terms of the particular paradigm they utilize. It will be shown how this paradigm involves anonymous or nonanonymous helping and the results will be discussed. Tables 1 and 2 give a breakdown of the major characteristics of both anonymous and nonanonymous interracial helping studies.

Wrong number. A number of experiments (Gaertner & Bickman, 1971; Gaertner, 1973; Clark, 1974; Franklin, 1974)
<table>
<thead>
<tr>
<th>Study</th>
<th>Sex of subject</th>
<th>Sex of victim</th>
<th>Race of subject</th>
<th>Race of victim</th>
<th>Method</th>
<th>Major</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gaertner &amp; Bickman (1971)</td>
<td>Male (M)/</td>
<td>M</td>
<td>Black (B)/</td>
<td>B/W</td>
<td>wrong</td>
<td>white</td>
</tr>
<tr>
<td></td>
<td>Female (F)</td>
<td></td>
<td>White (W)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gaertner (1973)</td>
<td>M/F</td>
<td>M/F</td>
<td>W</td>
<td>B/W</td>
<td>wrong i</td>
<td>white</td>
</tr>
<tr>
<td>Clark (1974)</td>
<td>M/F</td>
<td>M/F</td>
<td>W</td>
<td>B/W</td>
<td>wrong j</td>
<td>white</td>
</tr>
<tr>
<td>Franklin (1974)</td>
<td>M/F</td>
<td>M/F</td>
<td>W</td>
<td>B/W</td>
<td>wrong j</td>
<td>white</td>
</tr>
<tr>
<td>Bryan &amp; Test (1967)</td>
<td>M/F</td>
<td>F</td>
<td>W</td>
<td>B/W</td>
<td>charity donation</td>
<td>white</td>
</tr>
<tr>
<td>Piliavin et al. (1969)</td>
<td>M/F</td>
<td>M</td>
<td>B/W</td>
<td>B/W</td>
<td>emergency</td>
<td>white</td>
</tr>
<tr>
<td>Benson et al. (1975)</td>
<td>M/F</td>
<td>M/F</td>
<td>W</td>
<td>B/W</td>
<td>lost application</td>
<td>white</td>
</tr>
<tr>
<td>Graf &amp; Hiddell (1972)</td>
<td>M/F</td>
<td>M</td>
<td>B/W</td>
<td>B/W</td>
<td>stranded motorist</td>
<td>both</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gaertner (1975)</td>
<td>F</td>
<td>F</td>
<td>W</td>
<td>B/W</td>
<td>emergency</td>
<td>white</td>
</tr>
<tr>
<td>(together condition)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>West et al. (1975)</td>
<td>M/F</td>
<td>M/F</td>
<td>B/W</td>
<td>B/W</td>
<td>stranded motorist</td>
<td>white</td>
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## Anonymous Helping Measures

<table>
<thead>
<tr>
<th>Race of victim</th>
<th>Method</th>
<th>Major finding for white subjects</th>
</tr>
</thead>
<tbody>
<tr>
<td>B/W</td>
<td>wrong #</td>
<td>whites were helped more than blacks</td>
</tr>
<tr>
<td>B/W</td>
<td>wrong #</td>
<td>whites were helped more than blacks</td>
</tr>
<tr>
<td>B/W</td>
<td>wrong #</td>
<td>white males were helped more than black males; black and white females were helped equally</td>
</tr>
<tr>
<td>B/W</td>
<td>wrong #</td>
<td>whites were helped more than blacks</td>
</tr>
<tr>
<td>B/W</td>
<td>charity</td>
<td>whites were helped more than blacks</td>
</tr>
<tr>
<td>B/W</td>
<td>donation</td>
<td>whites were helped more than blacks</td>
</tr>
<tr>
<td>B/W</td>
<td>emergency</td>
<td>same-race helping with drunk victim</td>
</tr>
<tr>
<td>B/W</td>
<td>lost</td>
<td>whites were helped more than blacks</td>
</tr>
<tr>
<td>B/W</td>
<td>application</td>
<td>whites were helped more than blacks</td>
</tr>
<tr>
<td>B/W</td>
<td>stranded</td>
<td>black was helped more than short hair white in beach area; short hair white was helped more than black who was helped more than long hair white in Navy area</td>
</tr>
<tr>
<td>B/W</td>
<td>emergency</td>
<td>whites were helped more than blacks</td>
</tr>
<tr>
<td>B/W</td>
<td>stranded</td>
<td>same-race helping</td>
</tr>
</tbody>
</table>
Table 2. Characteristics of Studies Involving Nonanonymous Helping Me

<table>
<thead>
<tr>
<th>Study</th>
<th>Sex of subject</th>
<th>Sex of victim</th>
<th>Race of subject</th>
<th>Race of victim</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wispe &amp; Freshley (1971)</td>
<td>M/F</td>
<td>F</td>
<td>B/W</td>
<td>B/W</td>
<td>dropped groceries</td>
</tr>
<tr>
<td>Thayer (1973)</td>
<td>M/F</td>
<td>M/F</td>
<td>B/W</td>
<td>B/W</td>
<td>request telephone call</td>
</tr>
<tr>
<td>Lerner &amp; Frank (1974a)</td>
<td>M/F</td>
<td>M/F</td>
<td>W</td>
<td>B/W</td>
<td>dropped groceries</td>
</tr>
<tr>
<td>Lerner &amp; Frank (1974b)</td>
<td>M/F</td>
<td>M/F</td>
<td>W</td>
<td>B/W</td>
<td>awarded money</td>
</tr>
<tr>
<td>Wegner &amp; Crano (1975)</td>
<td>M/F</td>
<td>M/F</td>
<td>B/W</td>
<td>B/W</td>
<td>dropped computer cards</td>
</tr>
<tr>
<td>Katz et al. (1975)</td>
<td></td>
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<tr>
<td>- Exp. I</td>
<td>M</td>
<td>M</td>
<td>W</td>
<td>B/W</td>
<td>answer questions</td>
</tr>
<tr>
<td>- Exp. II</td>
<td>M</td>
<td>M</td>
<td>B/W</td>
<td>B/W</td>
<td>answer questions</td>
</tr>
<tr>
<td>- Exp. III</td>
<td>M</td>
<td>M</td>
<td>B/W</td>
<td>B/W</td>
<td>requested change</td>
</tr>
<tr>
<td>Gaertner (1975)</td>
<td>F</td>
<td>F</td>
<td>W</td>
<td>B/W</td>
<td>emergency</td>
</tr>
<tr>
<td>(alone condition)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>requested 10 cents</td>
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<tr>
<td>Bickman &amp; Kamzan (1973)</td>
<td>F</td>
<td>F</td>
<td>W</td>
<td>B/W</td>
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<tr>
<td>Race of Victim</td>
<td>Method</td>
<td>Major Finding for White Subjects</td>
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<tr>
<td>B/W</td>
<td>dropped groceries</td>
<td>blacks and whites were helped equally</td>
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<tr>
<td>B/W</td>
<td>request telephone call</td>
<td>males helped black males more than white males; males helped black and white females equally; females helped blacks and whites equally</td>
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<tr>
<td>B/W</td>
<td>dropped groceries</td>
<td>males helped blacks more than whites; females helped blacks and whites equally</td>
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<tr>
<td>B/W</td>
<td>awarded money</td>
<td>blacks and whites were helped equally</td>
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<tr>
<td>B/W</td>
<td>dropped computer cards</td>
<td>blacks and whites were helped equally</td>
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<tr>
<td>B/W</td>
<td>answer questions</td>
<td>&quot;Negro&quot; caller was helped more than white or &quot;black&quot; caller</td>
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<tr>
<td>B/W</td>
<td>answer questions</td>
<td>blacks were helped more than whites</td>
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<tr>
<td>B/W</td>
<td>requested change</td>
<td>whites were helped more than blacks</td>
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<tr>
<td>B/W</td>
<td>emergency</td>
<td>blacks and whites were helped equally</td>
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<tr>
<td>B/W</td>
<td>requested 10 cents</td>
<td>blacks and whites were helped equally</td>
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have utilized what is known as the "wrong number technique" and in all of this research, blacks have been helped less than whites. With this technique, first developed and used by Gaertner and Bickman (1971), subjects receive a telephone call from a black or white caller (identifiable from voice characteristics) presumably stranded out on the highway. The caller indicates that he has gotten the wrong number (he was trying to call his garage) and that he has spent his last dime calling. He then asks the subject to call his garage for him (actually a confederate is waiting for the call) and it is this telephone call that serves as the dependent measure. It is obvious that with this technique, subjects are anonymous in that their identity is ostensibly unknown. The caller presumably would also have no way of discovering whom he or she had in fact called. In only one of these studies was there any evidence of blacks not being helped less than whites, that being in the case of a female victim in the Clark (1974) study where black and white females were helped equally.

Stranded motorist. Several experiments (Graf & Riddell, 1972; West et al., 1975) have utilized a stranded motorist paradigm in which an experimenter stands next to his or her car on the highway, with the hood raised (West et al., 1975) or holding an empty gas can, motioning to passing motorists in an ostensible attempt to get a ride to a gas
station (Graf & Riddell, 1972). Subjects in these studies were motorists and therefore could be thought of as rather anonymous. A motorist's identity can easily remain unknown and he or she can quickly leave the scene. West et al. found no evidence for cross-racial helping by whites. The Graf and Riddell results were somewhat more complex. Their results indicated that the greater the perceived similarity between helper and victim, the more likely help was given. A black was helped more than a short hair white in a beach area while in a Navy area, a short hair white was helped more than the black who was helped more than a long hair white. These results can probably best be accounted for in terms of perceived similarity since the level of anonymity was equivalent across conditions. This does not negate the importance of anonymity as a determinant of helping but rather shows that other variables can overcome same-race helping under anonymous conditions.

Emergencies. Several studies (Piliavin et al., 1969; Gaertner, 1975) have used an emergency paradigm in studying interracial helping. There is nothing inherently anonymous or nonanonymous about emergency helping. If it occurs in the presence of a group of people, subjects are likely to feel somewhat anonymous and unidentifiable. Subjects might feel as if they could not easily be singled out as a discriminator of blacks. These conditions were likely met in the Piliavin
et al. (1969) study in which an "ill" victim or a "drunk" victim collapsed on a subway. Some tendency existed for same-race helping but only in the case of the drunk victim, thereby lending some support to the notion that anonymity leads to same-race helping. Gaertner (1975) found evidence for both cross-race and same-race helping. Subjects witnessing an emergency were either alone or in the presence of others. When a group of people witnessed the emergency, black victims were helped less frequently and more slowly than were whites. No such difference occurred when subjects were alone. As argued before, subjects in the group condition may have felt somewhat anonymous while alone subjects did not. Although Gaertner (1975) proposed a different interpretation, which was discussed earlier, an explanation in terms of anonymity cannot be ruled out.

Charity solicitation. Bryan and Test (1967) found that white shoppers at a large department store were less likely to donate money to a black solicitor with a Salvation Army kettle than to a white solicitor. Such solicitations could obviously be arranged so as to make donating anonymous or nonanonymous. However, the shoppers in the Bryan and Test study were in a crowd of other shoppers and were not asked directly for a donation. Thus, they could likely feel quite anonymous in the situation as Bryan and Test themselves pointed out. In such a situation, subjects could feel secure
that no one would be able to single them out as a person who does not help blacks.

Lost application. Benson et al. (Note 1) studied racial helping by leaving completed applications for graduate school in phone booths at an airport. A stamped and addressed envelope was attached as well as a picture of the applicant (black or white) and a note to the applicant's father asking that the father mail the application before he flew to New York. The flight time indicated that the father had already departed. Whether or not the application was turned in to an airport official or mailed was measured. It is clear that subjects in this study were completely anonymous since they only accidentally discovered the application left behind by someone they had never seen nor presumably ever would. As would be expected, these anonymous conditions resulted in significantly higher helping rates for whites than for blacks.

Dropped article. A number of studies have utilized a technique in which the experimenter drops some item such as a bag of groceries (Wispe & Freshley, 1971; Lerner & Frank, 1974a) or computer cards (Wegner & Crano, 1975) and then measures if subjects help pick up the item. Subjects in these experiments probably felt rather nonanonymous in that they were identifiable and could be easily singled out as a person who does or does not help blacks. In such a face-to-
face situation, it would not be easy for them to conceal their identity. Given such nonanonymity, we would expect at least equal helping for blacks and whites. This, in fact, is what occurred. In the Lerner and Frank (1974a) study, males actually helped blacks more than whites.

Face-to-face request. Some studies have used a paradigm in which the experimenter approaches subjects face-to-face and makes some request of them. For instance, in Bickman and Kamzan's (1973) study, white supermarket shoppers were asked for 10¢ to help buy either milk or cookie dough. Thayer (1973) had his "deaf" experimenters ask subjects to make a telephone call for them. Katz, Cohen, and Glass (1975 - Experiment II) had experimenters ask subjects if they would answer some questions about a consumer product. In Experiment III by Katz et al. (1975), subjects were asked for change for a quarter. Since all of these studies involved a face-to-face interaction, subjects were clearly nonanymous. In such a situation, one's identity cannot be divorced from the response of not helping. In all of these experiments except Katz et al. (1975 - Experiment III), blacks were helped equal to or more than whites, as would be expected.

Right number. Katz et al. (1975 - Experiment I) had experimenters telephone subjects (addressing them by name), asking them to answer questions about a consumer product.
The callers identified themselves as "Negro", "black", or used no racial label (white). Helping rates for the "Negro" caller were higher than for the other two groups which did not differ. According to the Katz et al. (1975) model discussed earlier, a "Negro" was helped more because such a label suggests to whites a more conforming attitude toward white society than does "black." Whites then presumably want to reinforce such conformity behavior. Katz et al. argued that the label "black" implies to whites a nonconformist attitude, hence whites should not desire to reinforce the "black's" behavior. Whites and "blacks" received equal amounts of helping, however, which can likely be accounted for in terms of the nonanonymity of the helping request. Since subjects were identified by name on the phone, their identity (and presumably their address) was obviously known to the caller. It is interesting to note that while a wrong number phone call leads to anonymity and less helping for blacks (e.g., Gaertner & Bickman, 1971), Katz et al.'s study involved a right number call and led to more or equal helping for blacks.

Awarding money. Lerner and Frank (1974b) conducted a study in which subjects were required to award money to a needy black or white learner for their performance on a task. Blacks and whites were awarded equal amounts of money. Interestingly, the learner was on videotape and hence not
present. Although subjects were anonymous to the learner, then, they were nonanonymous to the experimenter who was present. Under these circumstances, subjects could easily be identified as someone who discriminates against blacks if they, in fact, did so.

Dutton's research. Research by Dutton and his colleagues (Dutton, 1973; Dutton & Lake, 1973; Dutton & Lennox, 1974) has shown that whites help blacks more than other whites. Without discussing this research, it will simply be noted that Dutton's helping measure of donating money is taken within a nonanonymous context. However, many of Dutton's findings cannot be accounted for in terms of the nonanonymity of the helping measure and in general, Dutton's (1973) theory of reverse discrimination which was discussed earlier has been well supported by his research. As pointed out earlier, however, studies using American subjects have not been supportive of the theory. Dutton's findings, then, cannot easily be interpreted without attributing them to being due to the use of a Canadian population. Research to unambiguously support or refute this proposition is needed.

In summary, the existing data on interracial helping suggests that blacks are helped less than whites under anonymous conditions while under nonanonymous conditions, discrimination toward blacks does not occur. This hypothesis, however, has never been directly tested and one purpose
of the present study was to do so.

**Increasing helping behavior toward blacks**

A second purpose of the present study was to explore means for increasing helping of whites toward blacks given that blacks are discriminated against at least in some situations. None of the interracial helping research has examined what can be done to increase helping toward blacks. Granted, some of the research suggests that certain conditions will lead to increased helping but establishing these conditions does not seem to be either realistic or desirable. For example, the work of Katz et al. (1975) suggests that helping toward blacks will increase if we have blacks engage in socially desirable behavior. Obviously, this kind of increase is not the most desirable. Such an increase is not general across types of helping and the helping itself is not to benefit the black but rather to benefit whites. Gaertner (1975) proposes that blacks will receive equal helping if the helping situation is unambiguous. It is evident, however, that not all helping situations can be made unambiguous even if we tried to make them that way—especially emergencies. And again, we would not necessarily be effecting an overall change in attitude, just in behavior.

Over the years, many techniques for reducing prejudice have been suggested and tried (cf. Yinger & Simpson, 1973; Simpson & Yinger, 1973; Donnerstein & Donnerstein, 1976;
Heissbach, 1976; Ashmore, 1970). These techniques range from psychotherapy to intergroup contact to propaganda and education. Many of the proposed techniques are based on some theory of prejudice. One such technique is that of the unlearning of assumed belief incongruence. Such a technique is based on the notions of Rokeach (Rokeach, Smith, & Evans, 1960) that prejudice arises due to the assumption of belief incongruence, that one's beliefs are dissimilar from that of another person. Such a theory of belief prejudice states that one's racial membership is not the cause of prejudice but rather the assumed belief disparity. So if such an incongruence can be unlearned by informing whites that blacks have similar attitudes to them, prejudice could be reduced.

Many studies have been conducted in an attempt to show the relative importance of race and belief in interpersonal attraction (cf. Jones, 1972; Hendrick, Note 2; Ashmore & Del Boca, 1976). This literature can be summarized by saying that most studies support the view that belief similarity is more important than race similarity in determining interracial attraction. There are certain limitations, however, to this general finding. Belief similarity decreases in importance and race similarity increases in importance as the nature of the interpersonal evaluation increases in intimacy and publicness unless as Mezei (1971) has shown, interpersonal judgment scores are adjusted for perceived social
pressure. That is, if subjects did not expect social pressure with regard to intimate contact with blacks, belief similarity was still more important than race similarity. The other limitation centers on the topic of the beliefs on which the black and white presumably agree or disagree. Hendrick and Rumenik (1973) found significant race effects when the beliefs dealt with racial issues. Presumably, the topic of race cued off a racially prejudiced attitude.

Several studies have examined the proposition that whites assume dissimilar attitudes in blacks. Byrne and Wong (1962) found that highly prejudiced whites assumed a greater attitude dissimilarity between themselves and a black stranger than between themselves and a white stranger. They also found that attitude similarity led to positive ratings and dissimilar attitudes led to negative ratings in both prejudiced and unprejudiced subjects. Stein, Hardyck, and Smith (1965) found that white teenagers responded to stimulus teenagers in terms of belief when extensive information was provided about the stimulus persons' beliefs. When no such information was provided, significant race effects were found. So it appears that Rokeach's basic notion is correct in that when whites have no other information available, they assume dissimilarity of beliefs between themselves and blacks and hence respond negatively toward them. As Jones (1972) and others have pointed out, this has clear implications for
reducing intergroup hostilities as well as increasing intergroup prosocial behavior. If whites are made aware that blacks have similar beliefs, they will presumably judge the blacks on this basis and will not discriminate on the basis of race.

If similar beliefs do in fact lead to attraction, then on what basis does this occur? Such an operation can be understood in terms of Byrne's (e.g., 1969; 1971) reinforcement theory of interpersonal attraction. According to this model (cf. Byrne & Clore, 1970), attitude statements elicit affective responses. The model assumes that people feel good when they hear something they agree with and feel bad when they hear something they disagree with. These attitudes become associated with the person who possesses them and the person then elicits these same positive or negative feelings. Byrne's research has led to the basic proposition that attraction toward a person is a positive linear function of the weighted proportion of positive reinforcements associated with that person.

Byrne (1971) has proposed that attraction is only one of a variety of evaluative responses which should be affected by the affect elicited by similar and dissimilar attitudes. Much evidence has accumulated showing this to be the case. For example, Griffitt and Jackson (1973) found that simulated jurors disliked a dissimilar defendant more than a similar
one and also found him guilty more often and recommended longer sentences. Griffitt and Jackson (1970) had subjects make recommendations concerning the hiring of research assistants in psychology. Attitude similarity on irrelevant issues influenced both hiring and salary recommendations. In a study by Golightly, Huffman, and Byrne (1972), business students were given a loan application that contained identical information for all subjects except for variations in the applicants' attitudes. The results showed that again, attitude similarity influenced subjects' decisions. With regard to interracial behavior, Donnerstein and Donnerstein (1975) found that attitude similarity increased the level of reward and reduced the level of aggression delivered to both black and white targets relative to dissimilar targets.

Although a number of studies have examined the relationship between attraction and helping, only a few of these have manipulated liking by means of similar or dissimilar attitudes. Many of the studies have used manipulations such as style of dress or pleasantness of the requester. In a study by Baron (1971), subjects were led to believe they were similar or dissimilar in attitudes from a confederate. After the experiment was presumably over, the confederate made either a small, a moderate, or a large request of the subject. The liked stranger was helped by all but one subject while the disliked stranger was less likely to re-
ceive help with a moderate or large request. Pandey and Griffitt (1973) also led subjects to believe that they were similar or dissimilar in attitudes to another "subject." On measures of willingness to help the "subject", volunteered time to help, and actual time spent helping to assemble questionnaires, liked others were helped more than disliked others. Evidence does exist, then, in support of the notion that attitude similarity can lead to helping behavior. It should perhaps be noted at this point that the study cited earlier by Donnerstein and Donnerstein (1975) showed that attitude similarity increased rewarding behavior toward both blacks and whites. As argued earlier in this paper, while rewarding behavior can surely be classified as a prosocial response, it is ambiguous as to whether it is a helping response as we usually define helping. With the rewarding measure as used by the Donnersteins, the target is not described as in need of help. The present study should hopefully unambiguously discern the influence of attitude similarity on helping responses toward blacks.

Summary and hypotheses

In sum, one purpose of the present study was to test the notion that the variable of anonymity can account for some of the variability of whites' helping toward blacks. A further purpose was to show that a manipulation of attitude similarity can increase helping behavior of whites toward blacks to a
level equivalent to helping toward other whites. In order to
test these propositions, it was necessary to create an
anonymous condition and a nonanonymous condition. Orthogonal
to this variable was that of attitude similarity. Three
levels of attitude similarity were incorporated in the study.
In order to run a condition equivalent to past research, it
was necessary to run one condition in which no information
was given in regard to the black's attitudes. A second con­
dition involved attitude similarity between the black and
white with a third condition involving attitude dissimilarity
between the black and white. Finally, the race of the needy
person was varied.

Briefly, the procedure involved a variant of the
supervisor-worker paradigm used by Berkowitz and his
colleagues in their dependency studies (e.g., Berkowitz &
Daniels, 1963). In this paradigm, subjects are "workers" and
must construct paper boxes for a "supervisor" who is depen­
dent on them. How many boxes the subject makes serves as the
dependent measure of helping behavior. The supervisor in
this study was black or white and had similar or dissimilar
attitudes to subjects or no information was given as to the
supervisor's attitudes.

The predictions, graphed in Figure 1, were as follows:

1. **When no attitude information is given, whites will be helped more than blacks under anonymity but helped equally**
Figure 1
Prediction of the Relationship between Race, Anonymity, Attitude Similarity, and Helping
under nonanonymity. Anonymous helping toward blacks will be less than nonanonymoust helping toward blacks while anonymity will have no influence on helping toward whites. Blacks will be helped less under anonymity and equally under nonanonymity for reasons discussed earlier. Anonymous and nonanonymous helping toward whites will not differ. There is no evidence showing that this variable should influence helping toward whites. In fact, Donnerstein et al. (1972) found that while anonymity affected aggression toward blacks, it had no effect on aggression toward whites.

2. When subjects believe they and their supervisor have similar attitudes, helping toward the black supervisor in the anonymous condition will increase to a level equivalent to the white supervisor in the same condition. Thus, no race difference should occur in either the anonymous or the nonanonymous conditions. Neither will there be an effect for anonymity for either the black or white supervisor. The means for whites in the similar condition will not be greater than those in the no information condition since as Byrne (Note 3) has indicated, when whites are given no information, they assume that other whites have similar attitudes. It is also assumed that nonanonymoust helping toward blacks in the no information condition is already at a ceiling so that in the attitude similarity condition, mean helping for blacks will be no greater than nonanonymoust helping in the no infor-
mation condition.

3. When subjects believe they and their supervisor have dissimilar attitudes, the black supervisor will receive greater helping than the white supervisor in the nonanonymous condition but will receive equal helping in the anonymous condition. Nonanonymous helping for blacks will be greater than anonymous helping for blacks while anonymity will not influence helping toward whites. In the case of the black supervisor, this condition is no different than the no information condition in which subjects assume dissimilarity. Hence, nonanonymous helping will be high and anonymous helping low. Since we know that dissimilar whites are helped less than similar whites, mean helping for whites in both anonymous and nonanonymous conditions will be less than mean helping in the similar and no information conditions and will be equivalent to the amount of help given to the anonymous black who is also dissimilar.
Method

Design and overview

The design was a $2 \times 2 \times 2 \times 2 \times 3$ partially hierarchal design with two levels of race of supervisor (black, white), two levels of supervisor nested within race, two levels of anonymity (anonymous, nonanonymous), two levels of sex of subject (male, female), and three levels of attitude similarity (similarity, dissimilarity, no information). Subjects were run in groups of up to four at a time (but always at least two at a time) with all subjects in any given session randomly assigned to one of the treatment conditions. Subjects first received some preliminary instructions about the study, filled out an attitude questionnaire (except in the no information condition), and then were separated into different rooms where they practiced for five minutes constructing paper boxes. They were brought together again for further instructions at which time they viewed on a video monitor the presumed "supervisor." It was explained that the supervisor was dependent on them and that they would be making paper boxes for him in order that he could win experimental credits. Subjects either remained anonymous or were nonanonymous to the supervisor. Subjects were then separated again for a 20 minute work period in which they constructed paper boxes. Before making the boxes, two-thirds of the subjects were given information as to the supervisor's
attitudes so as to either create attitude similarity or dis-similarity. The main dependent measure was the number of paper boxes which subjects made for their supervisor. Following the work period, all subjects completed a questionnaire including manipulation checks and reactions to the experiment and then were brought together again for purposes of debriefing.

Subjects

The subjects were 65 white males and 56 white females from introductory psychology classes at Iowa State University who participated in return for experimental credit toward their grade.

Procedure

Subjects in groups of up to four at a time were first escorted into an experimental room containing a table and four chairs, a video monitor, a camera, and a tape recorder. At this point in the experiment, neither the recorder, the camera, nor the monitor were operating. The experimenter explained to the subjects that the experiment dealt with the development of a test of supervisory ability and that a number of people from psychology classes had volunteered to serve as supervisors. He explained that one of these supervisors had arrived earlier and had written some instructions (see Appendix A) for the construction of paper boxes which subjects were going to make. They were further
told that the supervisor was in a different room in the building and that a closed circuit television system had been set up so that later it would be possible to see who the supervisor was and also to talk to him. Subjects were told that they would be the workers in the experiment, constructing boxes based on the supervisor's instructions. Except in the no information condition, the experimenter then further explained that an attempt would be made to create a situation as close as possible to a real life industrial setting and that it had been found useful in the past, in this respect, to have supervisors and workers exchange information about each other. The experimenter then asked subjects in the attitude similarity and dissimilarity conditions to fill out a College Student Inventory (see Appendix B) which assessed their attitudes on various current issues. These subjects were told that the supervisor would also be filling out the inventory and that they would later have a chance to see what his responses were. Following completion of the inventory (or immediately following the initial instructions for the no information subjects), the experimenter informed subjects that they would now be placed in separate rooms in order to practice making boxes for five minutes. It was explained that again, in real life, workers were usually given an opportunity to practice on tasks involved in their work, so that this would also be done in this experiment. Actually,
the practice period was necessary so that a baseline measure of each subject's box building rate unaffected by any of the experimental variations could be obtained. The experimenter said there would later be a work period in which the number of boxes they made would be counted. However, in the practice period, their boxes would not be counted. It was stressed, however, that it was very important that they make boxes throughout the entire five minutes so that each subject would have equal practice. Subjects were told to simply work at their own natural pace. These instructions were designed to deter subjects from making one or two boxes and then quitting. Subjects were then told that after the practice period they would return to the same room and would have a chance to see who the supervisor was and they would be given further instructions about the nature of the experiment. They would also find out at that time, they were told, if the supervisor would give them new instructions or whether they would use the same instructions for the work period.

At this point, subjects were given several minutes to read the supervisor's instructions. After this, they were escorted individually into their rooms and were given the necessary equipment for making the boxes (paper, tape, and scissors). A timer was set for five minutes and subjects were told to stop making boxes immediately when the timer went off. When the practice period ended, the experimenter
went into each subject's room and collected the boxes in a large bag. Actually, however, each subject's paper was unobtrusively coded such that the experimenter could later identify which of the boxes had been made by which subject.

**Race manipulation.** After the practice period, subjects were again brought together at which time further instructions as to the nature of the experiment were given. When subjects entered the room, they could see on the video monitor a black or white male sitting at a table leafing through some sheets of paper. In actuality, a video tape was being played. The experimenter first reemphasized to subjects that he had gotten volunteers from various psychology classes to serve as supervisors and then pointed out that the person on the monitor was their supervisor. The supervisor said that the supervisor was in another room in the building and that he had come in earlier and had been working on writing instructions and that he was still writing instructions for later sessions. The experimenter further reemphasized that the subjects would be acting as workers in the experiment and would be making paper boxes based on the instructions written by the supervisor.

At this point, a second person appeared on the monitor and began to converse with the supervisor. The experimenter pointed out to the subjects that this person was the project director and that he was just checking to make sure there
were no problems. It was at this point that a presumed "dialogue" then took place between the experimenter and the project director. The project director first called out to get the experimenter's attention, the experimenter spoke into a microphone, and an apparent dialogue then took place with the experimenter timing his statements to correspond with the prerecorded videotape. The project director first asked if the experiment was going all right and if there were any major problems. In the nonanonymous condition, he asked the experimenter to adjust the camera and then to aim the camera on all the subjects so that he and the supervisor could see them. Nonanonymous subjects were not "on camera" at any other point in the experiment.

In the anonymous condition, the camera was pointed away from the subjects and was never mentioned. The project director stated that the supervisor would be using the same instructions for the work period that he used in the practice period. He then indicated that the supervisor had completed the attitude questionnaire and asked the experimenter to come and pick it up when he had a chance. The experimenter said that he would and this concluded the dialogue. The purpose of this whole dialogue, in addition to serving as the means for manipulating the race of the supervisor, was to convince subjects that there was in fact a supervisor in another room.
The experimenter shut off the monitor at this point stating that "we won't need this anymore." He then told subjects that he was going to go get the forms which the supervisor filled out and that he would be back shortly. The experimenter then had subjects fill out their experiment cards while he first went to the control room to shut off the video recorder and then to an outside room to get the attitude questionnaires presumably completed by the supervisor. The experimenter had placed these questionnaires in this outside room during the practice period.

When the experimenter returned, he explained that he had put the necessary instructions for the rest of the experiment on tape. It was explained again on tape that the experiment's purpose was to develop a test of supervisory ability. Subjects were told that their supervisor would be judged on how well he had written his instructions and on the number of boxes that workers made during the 20 minute work period. It was emphasized, then, that the supervisor's rating depended greatly on the subject's performance. It was further stated that the supervisor who received the highest evaluation rating would receive a certain number of experimental extra credit points toward his grade in his psychology class.

Anonymity manipulation. In the anonymous condition, subjects were told that the supervisor would never know what the productivity was of any one worker personally. He would
only know the total productivity of all workers combined over four different sessions. Subjects were told that they would not be able to meet the supervisor since he had to remain to work on instructions for later sessions. Subjects were also instructed that when they finished making their boxes, they were to dump them in a bag that the experimenter would bring around to them so that he, the experimenter, would not know how many they had made. They were told that this was done for purposes of experimental control. In actuality, an attempt was being made to make helping anonymous to both the supervisor and the experimenter. Finally, as opposed to the nonanonymous condition, subjects in this condition were not put on camera and hence believed that they were at no time visible or identifiable to the supervisor.

In addition to being put on camera as described earlier, subjects in the nonanonymous condition were told that the supervisor would know what the productivity was of each one of them personally even though the important thing was the total productivity over four sessions. It was explained that the supervisor would visit with each subject after the work period to see exactly how they did. These subjects were told to leave their boxes on their table where the experimenter would later pick them up and count them before the subjects left.
Subjects were then separated into rooms where they were to work for 20 minutes making the boxes. Prior to beginning work on the boxes, however, the manipulation of attitude similarity was made.

Attitude similarity manipulation. As each subject was seated in his or her individual room ready to begin making boxes, the experimenter entered and gave each subject a copy of a College Student Inventory that had ostensibly been filled out by the supervisor. It was again explained that the experimenter wanted both the workers and the supervisor to know something about each other so that the situation would be somewhat similar to a real life setting. All subjects in any given session were assigned to either the similarity, the dissimilarity, or the no information condition. During the practice period, the experimenter had fabricated responses on the inventories so as to make it appear that the subjects were either very similar or very dissimilar in attitudes to the supervisor. In the similarity condition, the supervisor's responses were marked so as to be precisely the same as the subject's on 12 items of the inventory while two of the items indicated the most extreme disagreement possible. In the dissimilarity condition, the supervisor's responses indicated the most extreme disagreement possible on 12 of the items while two of the items indicated total agreement. The two inconsistent items
were the same in each of the conditions. In the no information condition, nothing was ever mentioned with regard to the supervisor's attitudes and thus no such information was ever given.

Subjects were told to look over the inventory so that they would know more about their supervisor. They were given approximately two minutes to do this. Following this, subjects began working on their boxes. The experimenter set a timer in each of the subject's room for 20 minutes and told them to stop working immediately when their timer went off. All subjects were instructed to remain in their rooms until notified by the experimenter to do differently.

At the end of the work period, the experimenter went to each subject's room and had anonymous subjects dump their boxes into the bag which he carried in with him. The paper boxes were again coded so that the experimenter could later identify which boxes had been made by which subject. Nonanonymous subjects, of course, were told to leave their boxes on their table. These subjects were told, in addition, that the supervisor would be in to visit with them in just a few minutes. At this point, the experimenter gave each subject an Experimental Subject Inventory (see Appendix C) to complete. The inventory included manipulation checks on anonymity and attitude similarity, an attraction measure, several questions evaluating the supervisor, several semantic
differential items asking for subjects' feelings during the experiment, one question asking for reactions to the experiment to uncover any suspicions, and several filler items. As a rationale for completing the inventory, the experimenter explained that he was interested in how subjects perceived the work situation and the supervisor and how well they understood the nature of the experiment so that he could gain a better understanding of supervisor-worker relations and supervisory ability and also so he could improve the experiment for later sessions.

All subjects were told to report back to the main experimental room after completing the inventory. It was at this point that the experimenter announced the end of the experiment and subjects were debriefed. It was explained that there was no supervisor in actuality and that the purpose of the study was to look at the effects of attitude similarity and anonymity on helping behavior. They were not told that the effects of race were studied to avoid any negative affect that subjects might experience should they have felt that they did not greatly help the black. Subjects were asked not to discuss the experiment with anyone, were thanked for their participation, and were then dismissed.

**Dependent variables and statistical analyses**

Helping behavior was measured in terms of how many paper boxes subjects made. This then served as the main dependent
measure. Other measures taken included manipulation checks on anonymity and attitude similarity, a measure of attraction, several questions with regard to the subject's perception of the supervisor's performance, included mainly for filler purposes, several items indicating the subjects' feelings of competitiveness and self-esteem along with several other filler items, and finally an assessment of the subject's suspicions.

The helping measure was analyzed by analysis of covariance with the baseline rate of making boxes serving as the covariate or control variable. This procedure controls for any individual differences that may exist in box building and thus aids in reducing error variance.

Following Donnerstein and Donnerstein (1975), the attitude similarity manipulation was assessed by asking the subject two items: (1) how similar the subject felt to the supervisor, and (2) how much the subject had in common with the supervisor. This information was assessed on five-point scales with the two items being summated and the scores then subjected to an analysis of variance.

Again after Donnerstein and Donnerstein (1975), the attraction measure consisted of three seven-point scales assessing: (1) willingness to serve with the supervisor in another experiment, (2) degree of liking for the supervisor, and (3) willingness to choose the supervisor as a friend.
The ratings on the three items were summed and analyzed by an analysis of variance.

For a check on the manipulation of anonymity, subjects were asked whether the supervisor would only know the total productivity of all workers combined or whether he would also know the productivity of each worker personally. This question was asked in the context of several other filler questions for the presumed purpose of detecting if subjects understood the instructions given them by the experimenter. An assessment was then made of the number of subjects on whom the manipulation was effective.

It was also of interest to get a check on subjects' feelings of competitiveness and self-esteem. These were assessed on seven-point semantic differential scales which were analyzed by analysis of variance. Several other semantic differential scales were also included for filler purposes.

Finally, with regard to the assessment of subjects' suspicions as to the true nature of the experiment, one item asked subjects to briefly describe the purpose of the experiment. It was felt that this question would allow subjects to express any suspicions they might have.
Results

A total of 166 subjects were run in the experiment. Of these subjects, 45 were eliminated from the analyses for various reasons. Of the 45 subjects, 17 were judged to be suspicious either because they knew part of the study's hypotheses (as indicated on the final questionnaire) or because they believed that some of the procedures were contrived (e.g., the supervisor was on tape), 11 subjects constructed the boxes incorrectly, two subjects were eliminated due to technical problems, one subject responded incorrectly to the anonymity manipulation check, and 14 subjects responded incorrectly to several crucial items on the final questionnaire. These 14 subjects either indicated that the supervisor with the highest evaluation rating would not win anything or indicated that the supervisor would not be judged by how many boxes workers made. These subjects, then, were questionable as to whether or not they understood the nature of the experiment.

Eliminating these subjects created some analysis problems, however. After the elimination, some cells contained extremely small ns, four of the cells containing only one subject. (See Appendix D for the number of subjects in each experimental condition.) Rather than doing an analysis which might give rather unstable results because of these small ns, two separate analyses were performed in all cases -
one collapsing over sex as a variable and one collapsing over supervisor as a variable. Collapsing over each of these variables raised the cell sizes to a more appropriate level. These two variables were eliminated from each of the respective analyses since neither of them were of major interest to the hypotheses of the study. Collapsing over both was done since one did not really take precedence over the other and doing both analyses gave the maximum amount of information possible while still maintaining adequate cell sizes. The only information lost, then, was with regard to interactions containing both the supervisor and sex variables. This information, however, was not considered crucial to the hypotheses of the study.

Manipulation checks

The results of the manipulation check on anonymity showed this variable to be effective. As indicated earlier, only one subject had to be eliminated from the analyses because of responding incorrectly to the anonymity manipulation check which asked whether the supervisor would know or would not know their individual productivity. Three subjects who also responded incorrectly to this item were left in the analyses since their incorrect responses were judged to be due to the ambiguity of the wording of the item. After 44 subjects had been run, and five subjects had responded incorrectly, it was felt that the item may have been worded
ambiguously. The item was then rewritten and only one subject after that responded incorrectly. It was this subject who was eliminated from the analyses. The remaining two subjects of the five subjects who responded incorrectly to the earlier version of the item were eliminated from the analyses because of their incorrect responses to other items already discussed earlier.

The two items testing the effectiveness of the attitude similarity manipulation correlated significantly with each other ($r = .71, p < .0001$) and thus were summed for the analyses. The first analysis eliminated sex as a variable. This analysis resulted only in a significant main effect for attitude similarity ($F = 94.53, df = 2/97, p < .0001$). Because the mean comparisons for this effect were planned, multiple $t$ ratios were used (cf. Kirk, 1968). Multiple $t$ ratios showed that subjects in the similar condition saw themselves as more similar to the supervisor than did subjects in the no information ($t = 6.79, df = 97, p < .0005$) or dissimilar condition ($t = 13.70, df = 97, p < .0005$). Furthermore, subjects in the no information condition saw themselves as more similar to the supervisor than did subjects in the dissimilar condition ($t = 7.12, df = 97, p < .0005$). A second analysis eliminated supervisor nested within race. This analysis again resulted in a significant main effect for attitude similarity ($F = 101.98, df = 2/97, p < .0001$) as well as a significant race $\times$
attitude similarity x sex interaction ($F = 3.52, df = 2/97, p < .03$). A Newman-Keuls test was used to further analyze interaction since the interaction was not predicted. This test indicated that similar means were greater than no information means ($ps < .05$) which were greater than dissimilar means ($ps < .05$) except for males in the black condition where the difference between the similar and no information means was not significant. (See Appendix E for the means of this interaction.)

**Attraction**

It was also of interest to determine if the attitude similarity manipulation had influenced attraction as hypothesized by Byrne (e.g., 1971). The three items measuring attraction toward the supervisor also correlated significantly and thus were summed for the analyses. ($rs = .61, .59, .70$, all $p < .0001$) The analysis eliminating sex resulted only in a significant main effect for attitude similarity ($F = 21.12, df = 2/97, p < .0001$). Multiple $t$ ratios showed that subjects in the similar condition had higher liking scores than did subjects in the dissimilar condition ($t = 6.16, df = 97, p < .0005$) and the no information condition ($t = 1.37, df = 97, p < .10$). Also, subjects in the no information condition had higher attraction scores than did dissimilar subjects ($t = 4.86, df = 97, p < .0005$). The analysis eliminating supervisor nested within race again resulted in
the significant attitude similarity effect ($F = 23.71, df = 2/97, p < .0001$). In addition, there was a significant sex main effect ($F = 4.39, df = 1/97, p < .04$) with females having higher attraction scores than males. Finally, there was a nearly significant anonymity $\times$ sex $\times$ attitude similarity interaction ($F = 2.97, df = 2/97, p < .054$). This interaction appeared to be due to one treatment condition not being in the predicted direction; males in the anonymous condition had lower attraction scores in the similar condition than in the no information condition. (See Appendix F for the means of this interaction.)

**Helping**

Analyses of covariance were computed on the helping (work period) scores in order to control for any individual differences in box building ability. In these analyses the covariate scores were the number of boxes made during the five minute practice period. The analysis eliminating sex as a variable resulted in a significant anonymity effect ($F = 4.83, df = 1/96, p < .03$) with nonanonymous helping (adjusted mean = 24.13) greater than anonymous helping (adjusted mean = 22.50). The analysis eliminating the supervisor variable resulted again in the significant anonymity effect ($F = 5.29, df = 1/96, p < .02$) as well as a nearly significant anonymity $\times$ attitude similarity interaction ($F = 2.88, df = 2/96, p < .059$). Visual inspection of this interaction suggests that
the near significance was caused by the nonanonymous mean actually being lower than the anonymous mean in the no information condition while the reverse held true in the similar and dissimilar conditions. (See Appendix G for the means of this interaction.) It is of interest to note that when the analysis on helping scores included all factors, comparable results were obtained.

Analyses of variance were also computed on the covariate (practice) scores in order to insure that the randomization procedure was successful. However, the analysis eliminating sex as a variable showed a significant race effect ($F = 4.19$, $df = 1/97$, $p < .04$) while the analysis eliminating the supervisor variable resulted in the same race effect ($F = 4.11$, $df = 1/97$, $p < .04$) as well as a significant sex effect ($F = 3.91$, $df = 1/97$, $p < .05$). The significant race effect must be attributed to chance since this manipulation was not in effect at the time the covariate measure was taken. Apparently, high and low ability subjects by chance were distributed unevenly across the treatment conditions.

Finally, although this was not the appropriate analysis, analyses of variance were computed on the helping scores. That is, these analyses did not control for individual differences in box building ability. Such an analysis eliminating sex as a variable resulted in a significant race effect ($F = 5.90$, $df = 1/97$, $p < .02$) as well as a signifi-
cant race X anonymity X attitude similarity interaction ($F = 3.09, \text{df} = 2/97, p < .05$). Analysis of this interaction was done by Dunn's procedure (cf. Kirk, 1968) since the interaction was predicted. Dunn's procedure is more conservative than multiple $t$ ratios and thus was used instead of the $t$ tests because of the large number of comparisons made in analyzing the interaction. Thus, the overall alpha level was better controlled than would have been the case with the use of multiple $t$ ratios. The analysis by Dunn's procedure showed that helping in the black-nonanonymours-similar condition was significantly greater than the white-nonanonymuous-similar and the white-anonymous-dissimilar conditions ($ps < .05$) while no other means were significantly different. The analysis eliminating the supervisor variable showed no additional significant effects above and beyond those found in the analysis just reported. (See Appendix H for the means of this interaction.)

The results of the analyses of covariance suggest that the results of the analyses of variance of the helping scores were not valid but rather were due to the chance circumstances that high and low ability subjects were not evenly distributed across conditions. This is especially evident given that significant race effects occurred in both the analyses of variance of the covariate scores and the helping scores.
Supplementary data

After completing the manipulation checks on the final questionnaire, subjects completed several other items that were of tangential interest in the study. One such item was a measure of feelings of competitiveness during the experiment. This bipolar dimension was included as a check on the possibility that subjects would feel more competitive in the nonanonymous condition than in the anonymous condition, thus clouding the interpretation of a significant anonymity effect. The analyses of variance on this variable showed only a nearly significant anonymity X supervisor interaction ($F = 3.05, \text{df} = 2/97, p < .0505$). Newman-Keuls tests resulted in none of the comparisons being significant. However, visual inspection of the interaction suggests that the near significance occurred because in the black supervisor condition, anonymous and nonanonymous competitiveness ratings were relatively equal for the first supervisor while for the second supervisor, nonanonymous ratings indicated more competitiveness than in the anonymous condition. For the white supervisor condition, on the other hand, anonymous subjects felt somewhat more competitive than nonanonymous subjects for one supervisor while the reverse held for the second supervisor. (See Appendix I for the means of this interaction.)
Another issue of tangential interest in the study concerned whether or not attitude similarity influenced self-esteem. That is, does attitude similarity influence one's self-esteem which in turn leads to positive affect and increased helping? A bipolar item was included on the final questionnaire which asked subjects to rate their feelings on a scale of worthless- valuable. Analyses of variance on these ratings showed no significant effect for attitude similarity suggesting that the attitude similarity manipulation did not influence subjects' self-esteem level. These analyses only produced one significant effect, that being supervisor nested with race ($F = 3.16, df = 2/97, p < .05$), a finding which is essentially uninterpretable.

Additional analyses of helping data

The above analyses including only 121 subjects could perhaps be considered the most accurate or appropriate approach. It was of interest, however, to also examine helping scores when the analyses included the 15 subjects who responded incorrectly to either the anonymity check, the item with regard to what the supervisor would win, or the item with regard to what the supervisor would be judged by.

An analysis of covariance computed on the helping scores resulted in no significant effects with a marginally significant effect occurring for anonymity ($F = 3.11, df = 1/87, p < .08$). More helping occurred in the nonanonymous than in the
anonymous condition.

In addition to the analysis of covariance, an analysis of variance was computed on the covariate scores and on the helping scores. The analysis of the covariate resulted in a significant sex main effect \((F = 4.75, \text{df} = 1/88, p < .03)\) and a significant race \(\times\) anonymity \(\times\) attitude similarity interaction \((F = 4.03, \text{df} = 2/88, p < .02)\). Again, this latter finding must be attributed to chance. The analysis of the helping scores resulted in a significant race main effect \((F = 5.06, \text{df} = 1/88, p < .025)\) as well as a significant interaction of race, anonymity, and attitude similarity \((F = 3.73, \text{df} = 2/88, p < .03)\). Multiple comparisons by Dunn's procedure showed that helping in the black-nonanonymous-similar condition differed significantly from the white-nonanonymous-similar and white-anonymous-dissimilar conditions \((p < .05)\) while no other means were significantly different. (See Appendix J for the means of this interaction.)

The findings from the covariance analysis suggest that the results of the analysis of variance were due to certain cells having subjects with particularly high or low ability in constructing boxes. This is especially evident considering that the practice scores resulted in the same three-way interaction as the work period scores. In essence, controlling for ability washed out any effects found in the analysis of variance test. It should be remembered that
these analyses included 15 subjects who apparently did not understand the nature of the experiment and consequently, the results should be viewed as less accurate than the analyses reported earlier with these 15 subjects eliminated.
Discussion

It is clear that the obtained results were not as predicted. Rather than the predicted interaction of race, anonymity, and attitude similarity, the only significant finding was that nonanonymous helping was greater than anonymous helping. The failure to find the predicted results cannot be attributed to the ineffectiveness of the experimental manipulations. The anonymity manipulation was successful and is reflected in the significant anonymity finding. In addition, the attitude similarity manipulation was successful and also led to the expected results with regard to attraction. Although a check on the race manipulation could not be obtained without arousing suspicion, there is no reason to doubt that this manipulation was anything less than effective since it was done by videotape. That is, there might be more concern had race been manipulated verbally by the experimenter or perhaps been given through written instructions. The video manipulation was likely much more salient than these other manipulations would have been.

Given that the experimental manipulations were successful, the question must be raised as to why the predicted results did not occur. Various explanations can be offered. One possibility is that the hypotheses of the study were simply not true. That is, perhaps the variable of anonymity cannot account for past interracial helping findings. Per-
haps other factors not manipulated in the present study can best account for interracial helping. For instance, it might be the case that ambiguity of need for help is an important determinant of whites' helping toward blacks. According to Gaertner (1975), if the need for help cannot easily be misinterpreted (i.e., unambiguous), race will not affect helping. In the present study, the need for help was made salient and unambiguous. To the extent that some variable such as this is important, the findings of the present study would be understandable. While one can argue that other factors other than anonymity can best account for past findings, there is evidence in every case, as discussed in the introduction, to contradict those interpretations. It is still unclear even with an alternative explanation, why attitude similarity did not influence helping. It is indeed the case that attitude similarity sometimes has no effect on one's behavior (e.g., Kleck & Rubenstein, 1975; Hendrick & Taylor, 1971). However, as stated earlier, evidence does exist showing that attitude similarity affects helping (Baron, 1971; Pandey & Griffitt, 1974). These latter studies have only shown, however, that attitude similarity affects one's decision to help or not help. Perhaps when subjects are "forced" to help as in the present study, attitude similarity will have no influence on the amount of help they give. In general, it is not entirely clear under what
conditions attraction will affect helping. It is also interesting to note that in the Baron (1971) study, attitude similarity did not affect helping when the request was a small one requiring little effort. This may help explain the lack of a similarity effect in the present study if one assumes that the helping task was a rather small and trivial one, as will be argued later.

It is also possible that the study's hypotheses were correct but that other factors operating in the experiment nullified the possibility of confirming those hypotheses. A number of such possibilities will now be discussed. Several potential explanations deal only with why no significant findings occurred for race. One such interpretation focuses on the subject population used in the present study. That is, perhaps the predicted results were not obtained due to some characteristics of the subject population. First of all, perhaps it is the case that Iowa college students are not highly prejudiced against blacks. It is indeed the case that the black population in Iowa is quite small and that the state is relatively free of black-white tensions. Further complicating matters is the fact that in recent months, much debate has taken place among students, university administration, and other school officials with regard to the naming of the new football stadium in honor of the university's first black football player who died from injuries suffered in his
first varsity game. This debate may have made the issues of prejudice and discrimination very salient to the subjects and perhaps altered their responses from what they would have been originally. Such musings raise an interesting point. It could be the case that the hypotheses of the study are correct and that they would have been confirmed had a more prejudiced population been used. Or, on the other hand, one might wonder if the particular subject population used can account for past discrepancies in interracial results. That is, is it possible that previous studies finding less helping for blacks than whites were conducted in locations which contained large black populations and perhaps a high incidence of prejudice while studies finding no discrimination against blacks were run in locations with small black populations and perhaps a lower incidence of prejudice? An examination of previous interracial helping studies shows that all of the past studies finding less helping for blacks were in fact either run in large urban areas with a large black population and/or were run in Southern locations where prejudice is known to be higher than in other regions (cf. Kelly, Person, & Holtzman, 1958). The evidence is not so clear with the studies finding less discrimination against blacks. Some of the studies were run in the Midwest where prejudice might be less but nevertheless some of the studies were also run in New York City where some of the studies were run in which
blacks were helped less than whites. It could probably be concluded that the particular population does indeed account for some of the variance in explaining interracial helping but it by no means accounts for all of it. Whether it can account for the lack of significant results in the present study is unclear.

If the particular subject population can account for the lack of a race finding, it is still necessary to account for the lack of a significant attitude similarity finding. Again, it is possible that attitude similarity only affects one's decision to help, not the amount of helping. Or perhaps similarity does not influence helping for small requests.

With regard to the particular subject population used, it should also be noted that while the present study utilized college students as subjects, most of the previous interracial helping studies did not. Perhaps the lack of predicted results is due not so much to the fact that the subjects were Iowans but rather due to the fact that they were college students. Given that the students are likely better educated overall than the populations used in previous studies, the overall level of prejudice may also have been lower (cf. Bettelheim & Janowitz, 1964).

It is interesting to speculate whether or not the subject population of the present study meets the conditions
for reverse discrimination suggested by Dutton (1973) which were discussed in the introduction. The particular population used in this study does indeed resemble the Canadian population which Dutton uses in his research. That is, both populations have few blacks and few black-white tensions. If this is the case, one might wonder why whites in the present study did not actually help blacks more than whites. One possible explanation is that a ceiling effect occurred for the box building measure. If so, this could account for the lack of reverse discrimination. One of Dutton's criteria for reverse discrimination is that the interaction between the white and black must be trivial in nature. The measure of helping in the present study could undoubtedly be classified as trivial in that it was a short term effort on the part of the white and in addition, it required little effort, especially considering the fact that subjects had signed up for an experiment and were confined to some kind of activity anyway regardless of the particular nature of it. Since they were in the confines of the experiment, then, they may indeed have viewed the box making task as not requiring much effort.

This notion of the triviality of the task can actually be considered another potential interpretation of the results apart from any connections to Dutton's notions. That is, perhaps the effects due to both race and attitude similarity would have occurred had the nature of the task been differ-
Subjects may have reasoned that since they were in an experiment anyway, they may just as well go ahead and help as much as they could. Had the helping task required more effort, however, perhaps the predicted results would have occurred. For instance it may have made a difference if a one hour work period had been required rather than 20 minutes. Simply put, the task may have been so low in terms of the costs involved that no racial discrimination occurred as well as no helping difference across attitude conditions. In many of the past interracial helping studies showing less helping for blacks, the helping task could also be thought of as trivial but in most of those studies, subjects had the choice of whether or not to engage in the behavior. As indicated earlier, in the present study, subjects had no choice as to whether they would make the boxes but rather were given the choice as to how many they made.

This last point hints at another potential explanation for the lack of any significance due to race. Perhaps it is the case that subjects in the present study experienced evaluation apprehension (cf. Rosenberg, 1969). Rosenberg has argued that subjects go into an experiment with the expectation that the psychologist may try to evaluate his or her emotional adequacy or the lack of it. In some experiments, depending on the experimenter's instructions, the type of measures used, or the type of experimental manipulations,
this expectation of evaluation is confirmed. Subjects then develop hypotheses about how to win a positive evaluation, thus influencing the results of the study. In the present study, subjects who viewed a black supervisor may have experienced evaluation apprehension about how they treated the black. That this could occur in the nonanonymous condition is easily seen. But perhaps this also occurred in the anonymous condition. It could be that subjects did not actually believe that the experimenter would not know their actual productivity. In fact, it is the case that subjects were told that the experimenter would come in their room and pick up their boxes while also presumably not knowing their actual productivity. Perhaps it would have been better had the experimenter not picked up the boxes to eliminate a possible cue for evaluation apprehension. It is interesting to note at this point that all but one study (Gaertner, 1975) which have found less helping for blacks have been conducted in naturalistic settings where subjects did not know they were being studied. In those studies, subjects could not experience evaluation apprehension. So perhaps in dealing with a manipulation such as race in which subjects are concerned about evaluation of their behavior, it is best to obtain a measure of helping in a much more unobtrusive manner than was done in the present experiment. While evaluation apprehension can probably account for the lack of signifi-
cance due to race, it is not as clear whether it could also account for the lack of significance due to attitude similarity. The latter finding could perhaps be better explained by some of the notions discussed earlier.

Other potential interpretations of the lack of predicted results also focus on certain aspects of the procedure. One particular problem that may help explain the lack of significance due to both race and attitude similarity may have been that subjects were told that the winning supervisor would be given experimental credit points toward his grade in his psychology class. It was not stated, however, how many credits would be given. So even though subjects themselves were also receiving experimental credits for being in the experiment, they may have felt that working hard for the supervisor would create an inequitable situation. Consequently, they may not have worked as hard as they could have.

Another aspect of the procedure which could have caused a problem is that subjects were told that a supervisor's evaluation would depend on the total number of boxes made by all workers over four different sessions. Again, this problem could help account for both the results of race and attitude similarity. Because of this particular procedure there may have been a diffusion of responsibility for helping (cf. Latane & Darley, 1970). That is, because others were also responsible for the supervisor's evaluation, each subject may
have felt less personal responsibility for helping than would have been the case had the supervisor's evaluation depended only on one subject. The overall level of helping, then, may have been reduced, thus leading to no differences across treatment conditions except for the anonymity finding, of course.

A further problem related to the procedure could have been the manner in which the need for help was described. Perhaps subjects did not perceive the supervisor's need as great or as a need at all. Whether or not the supervisor won the experimental credit points was not described as a life or death matter. Nothing was said to lead subjects to believe that the supervisor would flunk his course without the credits. So in essence, subjects may not have seen the need for help as urgent and may have wondered how seriously to take the task. It was simply ambiguous as to how much the credit was worth to the supervisor. Perhaps the supervisor was already getting a good grade in his course and did not need the extra credits, or on the other hand, maybe the extra credits would change his grade from a failing one to a passing one. If subjects did not perceive the need for help as great, we would not expect to see much difference in helping across the treatment conditions, especially given the boring nature of the helping task.
All of the above interpretations have dealt with the fact that no significant findings occurred for race or attitude similarity. It is also necessary to account for why anonymity influenced helping even given some of the problems discussed. The best explanation is probably that no matter what the particular problem may have been, anonymity afforded subjects a way out of doing what they were doing. That is, it must be assumed that subjects did not really desire to make a lot of boxes due to the boring and tedious nature of the task. Therefore, if conditions allowed them to work less hard, they did it. In essence, anonymity seems to be a very potent variable.

The discussion thusfar should not cloud the fact that the anonymity finding in the present study was indeed an important one. The present study is the first one to show that the variable of anonymity can influence helping behavior. In addition to the research on race and anonymity discussed in the introduction, there has been research on anonymity apart from the race issue. Previous studies have shown that anonymity combined with group presence can lead to aggression and stealing (e.g., Zimbardo, 1969; Diener, et al., 1976). Other research (Gergen, Gergen, & Barton, 1973) has shown that anonymity can lead to physical intimacy. So although the research on anonymity is sparse, evidence does exist showing that anonymity can release a variety of nonnormative
behaviors. Stealing, aggression, and being physically intimate are all nonnormative behaviors that apparently can be stimulated under anonymity. Similarly, nonhelpfulness for a needy person is also considered nonnormative but yet anonymity can apparently also lead to this type of behavior. It is as if conditions of anonymity liberate us from all of the normative constraints on our behavior and allow us to engage in behaviors that are more rewarding and less costly to us. In the present study, subjects likely felt that the proper and acceptable thing to do was to work hard for their supervisor but at the same time, they were also acutely aware that this would be costly to them in terms of the effort they must put forth. A veil of anonymity allowed subjects to escape this bondage and behave more consistently with their own desires.

The present interpretation of the effects of anonymity is that anonymous helping is less than nonanonymous helping because of a reduction in normative constraints to behave in certain ways. Such an interpretation is different from the usual interpretation of anonymity. Zimbardo (1969) has posited that anonymity is one variable that leads to a state of deindividuation, a state in which people are not seen as individuals. Presumably there is diminished self-awareness and self-evaluation and a lessened concern for the evaluation of others in a deindividuated person. It is these internal
changes that presumably then allow unrestrained behaviors to be released. According to Zimbardo, variables that lead to a state of deindividuation include anonymity, group presence, altered responsibility, and arousal, among others. It has not been assumed in the present study that anonymous subjects somehow became "deindividuated", in essence losing self-awareness and self-evaluation nor does it seem necessary to assume this to be the case. Although Zimbardo (1969) has not made this issue clear, factors in addition to anonymity must likely be present before a true deindividuated state is reached. It is perhaps more parsimonious, then, to simply assume that anonymity alone leads to a reduction of normative constraints and allows a person to behave as desired. It is not assumed that subjects lose their personal identities such that they lose self-awareness. It is simply that the anonymity allows them to behave in a manner they desire without the need to worry about whether that behavior will result in negative consequences. It is implied in Zimbardo's (1969) theory of deindividuation that such a state leads only to negative behaviors. The fact that anonymity can also lead to physical intimacy (Gergen et al., 1973) suggests that perhaps the effects of anonymity can not always be explained by deindividuation and are perhaps better interpreted in terms of a simple reduction of normative restraints. That is, subjects likely make a cognitive appraisal of the current
rewards and costs for behaving in particular ways and then behave in the most rewarding manner. There need be no loss of self-awareness. Such an interpretation is also consistent with the findings of Donnerstein et al. (1972) who found more direct aggression delivered to blacks under anonymous than under nonanonymous conditions. Anonymous subjects could be aggressive since such behavior would not lead to retaliation on the part of the black. It is this appraisal of the rewards and costs that is important here, not some loss of self-awareness.

One important implication of the anonymity finding is that perhaps much helping or the lack of it can be explained by whether the helper is identifiable. But at a more general level, there is yet another implication. While helping researchers have not studied anonymity as a distinct variable, it has traditionally been a confounding variable in helping research. Apart from the interracial studies, some helping studies use anonymous measures while others use nonanonymous measures. Contradictory and inconsistent findings in the literature can perhaps be explained in terms of the anonymity of the particular measure used. Since the present study has shown anonymity to affect the level of helping, this variable can no longer be ignored whether in theorizing or simply in the design of a particular study.
Future research

The present study leaves many unresolved issues that must be dealt with in future research. The lack of predicted results with regard to race means that future research must attempt to discern the exact reasons why race was not a significant factor in the present study. To do this, it will be necessary to examine some of the potential problems which were discussed earlier. For instance, it is possible to investigate whether a lack of prejudice in the subject population was the core problem by administering a prejudice measure to subjects so that they could be classified as high or low on prejudice. In order to investigate whether the triviality of the helping task was the problem, a study could be conducted in which half the subjects worked for 20 minutes while the remaining subjects worked for an hour. Similarly, studies could be conducted in which the specific problems raised earlier could be dealt with to test their effects. A systematic sequence of studies could theoretically, then, result in some insight as to the exact reason or reasons for the lack of predicted results.

It is, of course, possible, as mentioned earlier, that some variable other than anonymity best accounts for interracial helping. To the extent this is true, it would be necessary to more precisely investigate some of the potential interpretations of interracial helping which were discussed
in the introduction.

If future research confirms that anonymity is an important determinant of interracial helping, other interesting studies could then be conducted. For instance, it would be desirable to look at possible variables that might be effective in overcoming the negative effect of anonymity on helping toward blacks. One could investigate the effects of modeling, for example, in conjunction with anonymity. Other variables that have been found to be effective stimulators in the helping literature might also prove worth studying. One particular variable that is especially relevant to race is that of guilt. It is interesting to speculate on the role of guilt in interracial helping. Perhaps feeling guilty about one's behavior toward a black would arouse negative feelings that one is prejudiced and thus increase helping to an even greater degree than is known to be the case for helping toward whites. It might also be that just general guilt about racial inequities would have the same effect.

While it is important to investigate factors which would overcome the effects of anonymity, it also seems crucial to investigate those factors in addition to anonymity which also help explain interracial helping. That is, it is highly unlikely that anonymity can explain all of the variance. Other variables such as ambiguity of need (Gaertner, 1975) or perceived social desirability (Katz et al., 1975) are worthy
of more investigation and can likely add to our insight in this area. The goal of this research should be to delineate the exact conditions under which one variable might be more important than another. In general, it is necessary that an attempt be made to understand the processes governing interracial helping as opposed to most of the previous studies which have only attempted to discern whether blacks or whites receive more help.

A different direction for future research based on the present study would be with regard to the variable of anonymity. Anonymity seems to be an important determinant of many behaviors and it deserves more attention. An initial step might simply be an attempt to replicate the present finding to determine its reliability. It would be interesting to then explore various parameters of the variable. Under what conditions is anonymity an important variable? What variables interact with anonymity? Can anonymity be manipulated in various ways? If anonymity proves to be an important determinant of helping, it is possible that some past findings in the helping area can be explained in terms of the anonymity of the situation.

An interesting set of studies could be done to test the notion that anonymity serves to reduce normative constraints on behavior. For instance, one could manipulate the rewards and costs involved in a particular helping measure. When the
helping is nonrewarding and with very high costs, we would expect anonymity to lead to a reduction in helping. When the helping task is very rewarding with few costs, we might expect anonymity to have little effect. Another potential study would be one in which a nonanonymous helping situation did not involve any negative consequences for not helping. Under such conditions, one would not expect any difference between anonymous and nonanonymous helping. Such studies would help differentiate between deindividuation and reduction of normative constraints as explanations of anonymity. In the just proposed studies, deindividuation theory might predict that under any circumstances, anonymous helping would be less than nonanonymous helping. Future research should help clarify these issues and perhaps aid in a better theoretical understanding of the bases of anonymity.
Reference Notes


3. Byrne, D. Personal communication, Purdue University, March 12, 1976.
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Lerner, R. M., & Frank, P. Laboratory analogue of field helping behavior. *Psychological Reports*, 1974, 35, 557-558. (b)


Acknowledgments

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It also goes without saying that I would never have made it this far without the help and patience I have received from my wife, Ana. Her ability to put up with the often frustrating life of a graduate student has amazed me. Her devotion has continued right to the end, to the typing of this dissertation.

Finally, not enough thanks could be given to my parents who have never given up on me. Their constant support has kept me motivated, to say the least.
Appendix A: Supervisor's Instructions

Supervisor's Instructions to Workers

Supervisor Number: ______3_____

Instructions:

Step 1: Study diagram I have drawn at bottom of page.

Step 2: Fold over about 1" on each of the long sides of the sheet of paper; that is, fold along lines A and B in diagram.

Step 3: Cut a line about 1" long along the folds at each end; that is, make cuts corresponding to the arrows I have drawn in the diagram.

Step 4: Fold up the 2 ends that go from one fold to the other fold; that is, fold up along lines C and D in the diagram.

Step 5: Tape together each of the 4 corners.

Step 6: ---

Step 7: ---

Step 8: ---

Step 9: ---

Step 10: ---

Diagram: Sheet of paper

\[ A \quad | \quad B \]

\[ \uparrow \quad \downarrow \quad C \quad \uparrow \quad \downarrow \]

\[ \quad \quad \quad \quad \quad \quad D \quad \quad \quad \quad \quad \quad \]

\[ \uparrow \quad \downarrow \quad \uparrow \quad \downarrow \]
Appendix B: College Student Inventory

To each of the 14 questions below, please state your degree of agreement to each of the statements as follows:

A STRONGLY AGREE
B AGREE
C DISAGREE
D STRONGLY DISAGREE

1. Abortions should be legally available to any woman who wants one.
   A B C D (please circle one)

2. This country needs more rigorous legislation to control pollution.
   A B C D

3. Marijuana should be legalized for persons 18 years of age or older.
   A B C D

4. There should be a legal basis for telling a couple how many children they can or can not have.
   A B C D

5. Law enforcement agencies should use any and all methods to obtain conviction in cases involving organized crime.
   A B C D

6. It was desirable to give the 18-20 year olds the right to vote.
   A B C D

7. Most elected politicians are honest.
   A B C D

8. Communism is actually a real threat to the American people.
   A B C D
9. It would be best if there were a constitutional amendment which would abolish capital punishment.
   A B C D

10. A ban on the construction of all nuclear energy plants should be put into effect until more knowledge is available as to their safety.
   A B C D

11. Fraternities and sororities on college campuses should be abolished.
   A B C D

12. There is too much of an emphasis on athletics in most universities.
   A B C D

13. Women deserve to have the same rights as men in our society.
   A B C D

14. The current grading system in colleges and universities should be abolished and replaced by a totally pass-fail system.
   A B C D
Appendix C: Experimental Subject Inventory

For each of the following questions circle the number which would best represent your own judgment of the person or the issue in question. Note that the scales run from a judgment of Very Little up to a judgment of Very Much for each question. Circle the number along this continuum which is nearest your judgment.

1. How similar to you do you feel the supervisor was?
   1. Very little similarity
   2. Little similarity
   3. Neither similar nor dissimilar
   4. Some similarity
   5. Much similarity

2. Do you think you would have much in common with the supervisor?
   1. Would have very little in common
   2. Would have little in common
   3. Would have neither a little nor a lot in common
   4. Would have much in common
   5. Would have very much in common

3. Would you enjoy serving in an experiment with the supervisor again?
   1. Would very much dislike serving with him again
   2. Would dislike serving with him again
   3. Would dislike serving with him again to a slight degree
   4. Would neither dislike nor enjoy serving with him again
   5. Would like serving with him again to a slight degree
   6. Would like serving with him again
   7. Would very much like serving with him again

4. How much do you feel you would like the supervisor?
   1. Would probably dislike him very much
   2. Would probably dislike him
   3. Would probably dislike him to a slight degree
   4. Would probably neither like nor dislike him
   5. Would probably like him to a slight degree
   6. Would probably like him
   7. Would probably like him very much

5. Do you think you would choose the supervisor as a friend?
   1. Would definitely not choose as a friend
   2. Would probably not choose as a friend
3. Would not choose as a friend to a slight degree
4. Would neither choose nor not choose as a friend
5. Would choose as a friend to a slight degree
6. Would probably choose as a friend
7. Would definitely choose as a friend

6. How well written do you feel the supervisor's instructions were?
   1. Definitely not well written
   2. Not well written to a slight degree
   3. Neither well written nor not well written
   4. Well written to a slight degree
   5. Definitely well written

7. How would you rate the probability of the supervisor being a good one in a real industrial setting?
   1. Definitely would not make a good supervisor
   2. Would probably not make a good supervisor
   3. Might or might not make a good supervisor
   4. Probably would make a good supervisor
   5. Definitely would make a good supervisor

It is very important in experiments that we make sure that subjects understand instructions which the experimenter gives them. Therefore, we need to know your reactions to the following questions (circle correct answer where appropriate).

8. The supervisor who gets the highest evaluation rating will win:
   1. a $5 prize
   2. extra experimental credits for his psychology class
   3. nothing

9. Each supervisor is participating in how many different sessions?
   1. 2
   2. 3
   3. 4
   4. 5

10. A supervisor will be judged by:
    1. how well his instructions were written
    2. how many boxes the workers made
    3. both 1 and 2
    4. neither 1 nor 2

11. Which of the following two statements is more accurate?
    1. The supervisor will not know the productivity of each worker personally; he will only know the total productivity of all workers combined over several
sessions.
2. The supervisor will know the productivity of each worker personally as well, of course, as the total productivity of all workers combined over several sessions.

12. On the following bipolar dimensions, indicate the point between the two adjectives that best describes your feelings during the experiment.

Example: If you felt only slightly active, you would perhaps indicate:


If you felt very passive, you would perhaps indicate:


worthless : ___ : ___ : ___ : ___ : ___ : ___ : valuable

happy : ___ : ___ : ___ : ___ : ___ : ___ : sad

guilty : ___ : ___ : ___ : ___ : ___ : ___ : not guilty

13. In your own words, how would you briefly describe the purpose of the experiment?
Appendix D: Number of Subjects in each Experimental Condition

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<tr>
<th></th>
<th>Attitude Similarity</th>
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<th>Attitude Dissimilarity</th>
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<td>3</td>
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<td>3</td>
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Appendix E: Mean Attitude Similarity Scores as a function of Race, Similarity, and Sex

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### Appendix F: Mean Attraction Scores as a function of Anonymity, Sex, and Similarity

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Appendix G: Adjusted Mean Helping as a function of Anonymity and Similarity

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Appendix H: Mean Helping as a function of Race, Anonymity, and Similarity

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Appendix I: Mean Competitiveness Scores as a function of Anonymity and Supervisor

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### Appendix J: Mean Helping for 136 Subjects as a function of Race, Anonymity, and Similarity

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