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FEMALE ACCOMMODATION WITHIN AND ACROSS ETHNICITY OF CO-ACTOR

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ABSTRACT

In the history of prejudice research in social psychology, there has been a long and arduous search for an unobtrusive methodology for assessing interracial and interethnic prejudice. One of the first reported unobtrusive measures was the bogus pipeline technique (Jones & Sigall, 1971). Jones and Sigall's measure was unequivocal in its ability to covertly assess prejudice. However, because of the great monetary cost and precision that the technique requires, others have attempted to devise more appropriate measures. Rio (1972) devised a technique that was based on the methods of early group conformity researchers. The present study reports a replication of Rio's study using a more modern sample. It was found that an ethnic bias could not be statistically demonstrated using this method. Implications for the validity of the methodology and directions for future research are discussed.

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INTRODUCTION

In the history of social science research, and particularly in psychological social psychology, there has been a long search for a method of assessing interracial and interethnic bias. One of the most basic methods that has been explored in this effort involves self-report measures of racist attitudes and prejudice. One of the most commonly cited examples of such an instrument is the modern racism scale offered by McConohay (1986). McConohay's measure was designed to be a non-reactive measure of anti-black feelings. The scale asks respondents to agree or disagree with a set of beliefs that Whites may or may not hold about Blacks (i.e. "It is easy to understand the anger of Black people in America"). According to McConohay, the scale allows participants to express negative affect toward a minority without apprehension that their expression might be

labeled as racist or prejudiced. Because the wording of the scale allows the prejudiced response to be explained by a racially neutral ideology, participants may be more likely to express their true feelings. Shortly after the publication of this self-report measure, a marked backlash against the utility of self-reports as a measure of racial attitudes was observed in the literature. Several inherent difficulties with the method were noted. For example, people may be unaware of their true sentiments (Banaji & Greenwald, 1994; Greenwald & Banaji, 1995), or they may be reluctant to express negativity toward minority members (e.g. Crosby, Bromley, & Saxe, 1980; Gaertner & Dovidio, 1986; Sigall & Page, 1971). Concerns such as these regarding the validity of self-report measures of attitudes have recently led to an interest in more indirect, unobtrusive measures of racial and ethnic attitudes.

One of the first and most well known attempts to measure racial attitudes unobtrusively was Jones and Sigall's (1971) bogus pipeline technique. By convincing participants that an apparatus was capable of measuring physiological responses and revealing true attitudes, Jones and Sigall were able to find large discrepancies between self-reports of interracial attitudes on traditional measures and reported attitudes while connected to the bogus pipeline. While the technique has been shown to be successful, it requires elaborate deception to convince participants that the apparatus can indeed discern their true attitudes.

In more recent years, the search for a new unobtrusive methodology has been spearheaded by Fazio and his colleagues (Fazio, 1986; 1993; 1995; Fazio, et al., 1986; Gaertner & McLaughlin, 1983). The procedure involves priming and permits assessment of the extent to which an attitude object activates an associated evaluation from memory. Their technique works in the following manner. First, a prime is presented to the participant (the name of an attitude object), then a positive or negative evaluative adjective follows it. Finally, the participant is required to determine if the connotation of the target word is positive or negative. The latency of making this judgement constitutes the dependent measure. For example, if the primed attitude object is

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negatively evaluated by the participant, then followed by a negative adjective, the participant can determine the connotation of the adjective very quickly. However, if the primed attitude object is negatively evaluated by the participant then followed by a positive adjective, then the participant will require more time to determine its connotation. Relatively faster response to positive adjectives would indicate a more positive attitude to the primed attitude object. Faster response to negative adjectives would indicate a more negative attitude.

At around the same time that the bogus pipeline was introduced as an unobtrusive measure of racial attitudes, another, less known measure was also developed (Rio, 1972). Because he was interested in the well-documented history of an own-ethnicity bias in geographical locations that are traditionally dominated by a single ethnic minority (Sherif & Sherif, 1969), Rio combined and applied two older methods of assessing intragroup conformity (Sherif & Sherif, 1969; Pollis, 1968) to the measure of inter-ethnic attitudes. The apparatuses of Rio's experiment were introduced by Pollis (1967), who initiated the use of sound beats on tape as an unstructured stimulus and Sherif (1969), who employed judgments of autokinetic light movement as a stimulus to observe social influence processes. Sherif and Pollis presented their respective

stimuli to groups to measure conformity among group members. In their experiments, a participant would be grouped with several experimental confederates who were ostensibly fellow students. When asked about the different stimuli (e.g. how many sound beats did you hear? or how many light flashes did you see?), the confederates either grossly overestimated or underestimated an appropriate answer. Because the stimuli were ambiguous and difficult for individual participants to judge, the amount their judgment changed to converge toward that of a confederate is a good indicator of that confederates influence over the participant.

Rio used his ambiguous stimulus technique to study influence in inter-ethnic and same-ethnic (Hispanic-American and Anglo-American) dyads, rather than larger groups. Using the same basic apparatuses as Pollis and Sherif, Rio reasoned that if participants did indeed harbor an inherent bias toward members of their own ethnicity, then their estimates of an ambiguous stimulus would tend to diverge from the estimates of a cross-ethnic partner, and converge toward the estimates of a partner of the same ethnicity. Sampson (1968) had demonstrated that an asymmetric esteem relationship affects convergence, and that disesteem is associated with divergence of estimates. Rio initially had his participants listen to a pre-recorded audio tape of sound beats from a metronome for a period of 10 seconds and make a judgement about how many beats could be heard if the tape had played for a full minute. Next, one week after the initial session, participants returned and participated in an identical session with either a same-ethnic or inter-ethnic partner. Using college males as his research participants, Rio used convergence of estimates in the presence of a same ethnic or divergence in the presence of a cross-ethnic partner as his measure of bias. He found evidence for a strong own-ethnicity bias, particularly among the Anglo-American males in his sample.

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Because Rio's experiment was conducted over twenty years ago with an all male sample, Garcia, Garcia, and Joyner (1993), conducted a replication of the study using an all female, college student sample. They found no similar bias among females at the same institution. The purpose of the present study was to replicate the Garcia, Garcia, and Joyner (1993) experiment with the addition of extra participants in an effort to determine if an ethnic bias could be demonstrated using Rio's methodology with a larger sample.

METHOD

Participants were 36 female Anglo- and Hispanic-American students of typical college age (18-25) from introductory psychology classes of cooperating professors at Texas A&M University-Kingsville. Course credit was offered in exchange for participation in the project. Participants' ethnic identity, age and available times for participation were taken from consent agreements in the process of volunteering. Potential participants were informed of the nature of the project and were allowed to ask questions concerning what would be required of them prior to volunteering. They were informed that the procedure would involve no stress, discomfort, or embarrassment and that they would be free to withdraw from the study at any time, for any reason.

Two separate stimuli were utilized. The auditory stimulus consisted of sound beats which were pre-recorded on tape at the objective rate of 200 beats per minute. The visual stimulus consisted of 150 electronic metronome flashes per minute which were projected onto a distorted screen. During the judgmental sessions, participants were exposed to the stimuli at random pre-determined intervals (ranging from 3 to 15 seconds per exposure). Participants were then required to make judgments about the presented stimuli. They were asked "If this tape played (light flashed) for a full minute, how many beats (flashes) do you think that you would hear (see)?" They were given instructional sets concerning the stimuli in an effort to more easily identify convergence and divergence of estimates. The instructional set was given to the participant by the experimenter through the following statement: "To keep down wild guesses at first, I am permitted to tell you that the correct answer is somewhere between ____ and ____ beats/flashes per minute." The instructional sets given were as follows:

Auditory stimulus

High: 200-250

Low: 150-200

Visual stimulus

High: 150-200

Low: 100-150

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Judgments rendered by the participant were recorded manually by the experimenter. The experiment took place in a small room with distractions being minimized as much as possible. The only people present during testing were the experimenter and one or two participants.

Individuals participated in a total of four judgmental sessions, lasting between 3 to 5 minutes each. Each session consisted of twenty judgments. During the first and third judgmental session participants were tested alone. Each participant made judgments on either the sound beats on tape, or the light flashes in the first session and made judgments on the remaining stimulus in the third session.

During the second judgmental session, two participants were paired within or across ethnicity. The dyad members were given two different judgmental standards during their first sessions (i.e. one was previously given a high instructional set and one was given a low instructional set). Finally, during the fourth judgmental session, participants were once again paired within or across ethnicity. The order of participation and the assignment of visual or auditory stimulus situations, high or low instructional set, and pairing within or across ethnicity was systematically varied to control for practice and order effects.

After pairing was completed, participants' names were removed from records of their performance and were replaced by codes. This procedure was implemented in an effort to avoid labeling any participant as prejudiced. If participants did not stay within their given instructional

set during the alone sessions, their responses were not used in the computation of the results. Data for three Anglo-American and two Hispanic-American participants were so lost.

RESULTS

Our conceptual dependent variable of own-ethnic bias was operationalized by convergence or divergence of estimates when the participants were paired with a same-ethnic or inter-ethnic partner. To the extent that a participant's estimates converged toward the estimates of a partner of the same ethnicity, regardless of her differing instructional set, and diverged from those of an inter-ethnic partner, she was considered to be showing evidence of ethnic bias. Differential convergence of judgements rendered in same-ethnic and inter-ethnic pairing were computed by recording the numerical convergence or divergence of each participant's estimate while in the presence of a same-ethnic dyadic partner and while in the presence of a inter-ethnic partner.

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There were several instances of convergence of judgments within-ethnicity and divergence across-ethnicity of co-actor. This was true of both Anglo-American and Hispanic-American participants. However, the overall differences were not statistically significant. Results appear in Table 1 and Table 2. Two separate t-tests were performed in an effort to determine if the amount of convergence or divergence of estimates varied for Hispanic-American or Anglo-American participants depending upon the ethnicity of their partner. T-test analysis of the results in Tables 1 and 2 reveals no statistically significant influence between the pairs (either within or across ethnicity) for either Anglo-American or Hispanic-American participants. Anglo-American females converged more with Anglo-American partners than they did with Hispanic-American partners. Mean difference in convergence of Anglo-American participants was 7.58 (SD = 24.18). However, that difference was not significant, $t(15) = 1.47, p > .05$. Thus, Anglo-American participants were not found to converge more toward the estimates of same-ethnic than inter-ethnic partners. The difference in the convergence rate was even smaller for Hispanic American female participants ($M = -1.15, SD = 46.76$) and also not significant, $t(16) = -.09, p > .05$. Thus, estimates of Hispanic females were no more likely converge toward those of a same-ethnic than inter-ethnic partner. We conclude that no ethnic bias among female college students could be demonstrated using this methodology with this sample.

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TABLE 1

Judgmental convergence toward (+) or divergence from (-) views of a same-ethnic or cross-ethnic partner by Anglo American Females

Accommodation when coactor is

Participant	Anglo American	Hispanic American	Difference
AA3	7.00	14.66	-7.66
AA4	-1.33	12.33	-13.66

AA5	3.34	4.00	-.64
AA7	11.66	-7.20	18.86
AA8	24.33	-1.27	25.60
AA9	13.74	-8.00	-5.74
AA10	42.27	-31.87	74.14
AA11	2.53	-15.26	17.79
AA12	-1.00	27.87	-28.87
AA13	3.07	6.46	-3.34
AA14	10.00	1.20	8.80
AA15	69.66	-52.00	121.86
AA16	4.40	-12.06	16.46
AA17	-15.00	2.34	72.66
AA18	4.00	-7.67	11.67

Note: A positive number indicates convergence of estimates (from the given instructional set to that of the interaction partner), a negative number indicates divergence. Difference is an indicator of overall ethnic bias. A positive difference indicates bias against Hispanics.

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TABLE 2

Judgmental convergence toward (+) or divergence from (-) views of a same-ethnic or cross-ethnic partner by Hispanic American Females

Accommodation when coactor is

Participant	Anglo American	Hispanic American	Difference
HA2	2.60	14.00	-11.40
HA3	62.00	-37.00	99.00
HA4	-28.80	-18.00	-10.80
HA5	-17.47	65.26	-82.73
HA6	10.67	2.14	8.53
HA7	44.46	-4.94	49.40
HA8	-24.34	7.33	-31.67
HA9	-8.00	7.00	-15.00
HA10	-.67	-15.26	14.59
HA11	13.54	-6.80	20.34
HA12	-9.20	40.67	-49.87
HA13	8.33	32.73	-24.40
HA15	-19.20	10.27	-29.47
HA16	3.33	22.00	-18.67
HA17	-38.94	-19.67	-19.27
HA18	12.67	-70.33	83.00

Note: A positive number indicates convergence of estimates (from the given instructional set to that of the interaction partner), a negative number indicates divergence. Difference is an indicator of overall ethnic bias. A positive difference indicates bias against Hispanics.

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DISCUSSION

The present study was the second in the series to find a lack of evidence for ethnic bias using the unobtrusive methodology introduced by Rio (1972). Although the experimental design differs from that of Rio's experiment in that he employed collaborators posing as volunteer participants, while we used real-participant co-actors to eliminate deceit, all other aspects are virtually identical.

The purpose of this study was to add credibility to the Garcia, et al., (1993) finding of a lack of ethnic bias among females using Rio's methodology. We have shown that, with few exceptions, such bias cannot be demonstrated. This study was the third in a series using the methodology introduced by Rio (1971). Although his findings supported the validity of the technique at the time, it seems that it may no longer be valid.

There were undoubtedly many differences in the samples of Rio (1972), Garcia, et al. (1993), and the present study. Chief among these is the single gender criterion of both studies. It may be wise in a future study to include both males and females in the sample. Another unavoidable difference was the time in which both studies were carried out. It is likely that Anglo Americans in 1972 were less inhibited in displaying an own-ethnic bias than were members of the more current samples. The ethnic composition of the student body at Texas A&M University-Kingsville at the time of the data collection of the two studies was vastly different. In 1973, shortly after Rio's initial study was conducted, the student body was approximately 73.6% Anglo American and 17.7% Hispanic American. At the time of the present investigation, the ethnicity of the student body was approximately 28.8% Anglo American and 62.5% Hispanic (Office of the Registrar, Texas A&M University-Kingsville, personal communication, October 9, 1997). Differing amounts of intergroup contact could also serve as a reasonable explanation for the observed differences in own-ethnic favoritism and cross-ethnic bias found in the two studies. However, if the reason for differing results in the three studies does prove to be inhibition in expression of bias, it will call into question the validity of Rio's methodology as a realistic measure of ethnic bias. Rio (1972) designed his methodology to measure ethnic bias unobtrusively like Jones and Sigall's (1971) bogus pipeline technique. If participants are able to consciously recognize their display of bias and to subvert it in the paradigm, it is useless as an unobtrusive measure.

Despite this possibility, the results of Garcia, et al. (1993) and the present study are insufficient to justify a complete disregard for Rio's (1972) technique. In the future, additional partial replications should be attempted with different sample compositions. If these studies produce similarly disappointing results, it might be wise to regard Rio's (1972) measure as invalid, at least in the present day.

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