

Saliency of Category Information in Person Perception for Ingroup and Outgroup Members

**Cynthia Willis Esqueda and Rosemary J. Esseks
University of Nebraska**

The saliency of category information in person perception for ingroup and outgroup members was investigated. European American participants were presented with a fictional character that varied in race (African American or European American) and occupational garb (military, judge, doctor, or athlete). Occupations were chosen to be either stereotypical or nonstereotypical for African Americans and European Americans with the aid of the Statistical Abstract of the United States (1992) percentages. Based on prior research findings (Park & Rothbart, 1982; Mackie & Worth, 1989), it was predicted European American participants would spontaneously describe an outgroup character by race (superordinate category information), but would mention occupation (subordinate category information) when spontaneously describing the ingroup character. As predicted, results indicated race was rarely mentioned when describing the ingroup character, but was usually the first label applied for the outgroup character. Moreover, when

describing the ingroup character, as compared to the outgroup character, occupation was mentioned earlier. Thus, differential utilization of organizing information about a seemingly mundane stimulus may provide a clue as to the origins of intergroup categorizations and bias.

Assignment of persons to social categories is an efficient method of simplifying social information we encounter on a daily basis. Categorization of persons into groups allows us to enter social situations with a sense of control over interaction outcomes and can guide behavior during interaction. Moreover, salient characteristics aid the categorization process with minimal expenditure of cognitive effort. Usually, the salient features used to categorize are visual and may include race, sex, physical disability, attractiveness, (Hamilton & Trolie, 1986; Jones, 1997; Stangor & Lange, 1994; Zebrowitz, 1990) and even hair color (Clayson & Maughan, 1986).

Although categorization of persons allows for simplifying and efficiently managing the social world, it can result in biased social information processing. For example, stereotyping (or a belief system about the category and its members) occurs as a result of categorization (Hamilton & Trolie, 1986; Linville, Salovey, & Fischer, 1986; Oakes, Haslam, & Turner, 1994) and can produce perceptions of outgroup homogeneity (Brigham, 1971; Park & Rothbart, 1982; Rothbart & John, 1985). Physical characteristics that denote group membership can result in different expectations for personality, activities, occupations (Duncan, 1976; Martin, 1987), and even prejudice level (Willis-Esqueda, Hoffman, & Wulf, 1999).

Another categorization outcome is that perceivers make finer distinctions between ingroup members than outgroup members (Fiske, 1998; Rothbart & John, 1985), which can enhance perceptions of ingroup differentiation and outgroup homogeneity (Linville, Salovey, & Fischer, 1986). Ingroup differentiation implies that diversifying information would be applied to the ingroup, while outgroup homogeneity would foster less attention to diversifying information for the outgroup. Thus, perceivers may attend to higher, more superordinate levels of categorization (e.g., race) for outgroup members (Fiske,

1998) and attend to lower, more subordinate levels of categorization (e.g., occupation) for ingroup members (Mackie & Worth, 1989; Park & Rothbart, 1982). Race can be considered an example of superordinate category information. It provides little individuating or diversifying group information and invokes or activates stereotypic information (Devine, 1989; Linville & Jones, 1980). However, subordinate information, such as occupational knowledge, can provide more individualized knowledge about a person, such as approximate income, education, lifestyle, etc. (Rothbart & John, 1985).

The purpose of the present research was to determine if visual stimuli (i.e., race and occupation) would be differentially utilized for spontaneously describing ingroup (other European Americans) and outgroup members (African Americans) by European American college students. In delayed recall descriptions of a narrative, Park and Rothbart (1982) found that superordinate information (i.e., gender) was recalled equally often for ingroup and outgroup members, but subordinate information (i.e., occupation) was more likely recalled for ingroup members with explicit questioning about targets' gender and occupation. In addition, Mackie and Worth (1989) found recall of superordinate gender category information was equal for both ingroup and outgroup members, but subordinate category information (academic major) was more often recalled for ingroup members than outgroup members.

Brewer and Miller (1988) argued that, "... categorical generalization of contact experiences occurs only when the superordinate category membership of the out-group individual is salient in the contact situation" (317). Race is a salient characteristic and can influence subsequent interactions with other, similar outgroup members. In order to reduce category based classifications and enhance intergroup member's interactions, personalizing outgroup members and making category membership subordinate (i.e., decategorization) should be the goal. However, what if the initial, spontaneous descriptive label refers to race and automatically categorizes the character, even in the absence of a contact situation that makes race salient? In the real world, one often hears outgroup members described with reference to their racial group membership in situations where such membership is not relevant. Similarly,

Omoto and Thomsen (1993) found highly prejudiced European Americans overestimated the number of African Americans in their social environments and in slide presentations, in comparison to European Americans, outside a contact situation. One goal, then, of the present research was to determine if race is a salient descriptive label, used by European Americans, for describing outgroup members in the absence of a situation that would even promote the use of race, using a free-response methodology (McGuire, McGuire, Child, & Fujioka, 1978; Stangor & Lange, 1994).

It was predicted physical characteristics denoting race would be salient for an outgroup character, but occupation would be salient for an ingroup character. Specifically, it was anticipated race would be more frequently used in describing an outgroup (African American) character than an ingroup (European American) character by European Americans, and would be one of the first labels used to describe the outgroup character. If outgroup variability is seen as minimal, basic category membership (i.e., race) may be considered primary and sufficient for describing an outgroup member. However, more diversifying information would be useful in describing an ingroup member. Thus, occupation would be more frequently used to describe the ingroup character, and an ingroup character's race would rarely be mentioned in spontaneous descriptions.

What happens if the categorized member does not possess a good fit to the category? One possibility is relegation to a special category label (Rothbart & John, 1985), and the inconsistent information becomes salient (Hamilton & Troler, 1986). An outgroup character's nonstereotypical occupation becomes important individuating information for subcategorizing (Rothbart & John, 1985). Thus, it was anticipated that viewing outgroup characters in nonstereotypical occupations would result in spontaneous descriptions with the occupation label as an important descriptor, rather than race, whereas outgroup characters with stereotypical occupations would be categorized with a race label.

However, it was predicted that the effect of stereotypicality of occupation would not influence ingroup categorization and race would rarely be mentioned. Subordinate information

would be more informative for classifying ingroup characters than superordinate information.

The liking for and perceived competency of the characters was also measured, as part of the evaluative response to the characters. It was hypothesized that subtle evaluative measures would detect any biases against the characters, particularly when characters held nonstereotypical occupations. For example, the African American medical doctor could be evaluated as less competent than the European American one, while the European American athlete could be evaluated as less competent than the African American one.

Characters' sex was held constant in order to eliminate the influence that multiple category memberships would have introduced into the descriptions (Stangor, Lynch, Duan, & Glass, 1992). Only male characters were depicted, because males are considered the norm (Miller, Taylor, & Buck, 1991) and prototypical "person" (Fiske, 1998), and stereotypical occupations could be identified more easily by race for males than females.

Method

Participants

One hundred and ninety one European American students (64 males and 127 females) participated for partial credit to fulfill requirements for an introductory psychology course. The participants' mean age was 20 with a range from 17 to 38 years. Only 11 minority students participated and their responses were insufficient in number for separate analyses. Consequently, only European American participants' responses were analyzed.

Procedure

Participants were told the purpose of the study concerned an examination of children's storybook characters. In order to produce stimulus materials that depicted storybook characters, the *Statistical Abstract of the United States* (1992) was reviewed. Frequencies with which male African Americans and European Americans hold certain occupations were examined and stereotypical and nonstereotypical occupations were chosen for African Americans and European Americans. Athletic

and military occupations were chosen for African Americans and judge and doctor for European Americans, because males are highly visible and have a high representation in these fields. Pictures of characters that could easily be found in children's storybooks were then developed. All the stimulus characters were converted to slides and were the same size. They were shown with a full body, frontal view. The slides depicted an African American or European American male, dressed in occupational clothing (i.e., athlete, military, judge, or doctor) and resembled a character that could be found in children's storybooks.

For each session the experimenter randomly chose a slide that was projected onto a screen with five to eight participants viewing the slide in each session. Several researchers have deemed eight seconds sufficient for encoding person characteristics (Haig, 1986a; Haig 1986b; Light, Kayra-Stuart, & Hollander, (1979); Solso & McCarthy, 1981). Consequently, the slide projector was preset to present each slide for eight seconds, thus providing an equal exposure time for character presentation. This resulted in a 2 (African American or European American male) by 4 (occupations: military, judge, doctor, or athlete) between-participants design. Before viewing, participants were instructed they would view a slide of a character and complete a questionnaire about the character. After viewing the slide, participants completed an open-ended description of the character and a questionnaire that contained manipulation checks and evaluative measures about the character. Participants were not allowed to revise the character description once they had turned to the questionnaire.

Participants provided the spontaneous character description with a free response format, using as many descriptors as needed. On the top of a blank sheet of paper, the specific instructions read, "In the space provided below, please describe the character. Use as much detail as you can." Descriptive mentions of race or occupation followed a continuum, from use as a first descriptor to no mention of race or occupation. The place along the continuum reflected a continuous measure of the saliency of race and occupation as descriptors of the character (with lower numbers indicating increased salience). If no mention of race occurred, the use of race was

coded at the end of the range of the continuum as ten. If no mention of occupation occurred, its use was coded as a nine. Moreover, the race and occupation descriptive mentions were coded, relative to other terms. Race might have been the first mentioned descriptor, followed by some other descriptor, followed by an occupation descriptor. Thus, race would have been coded as a one, while occupation would have been coded as three. Finally, race and occupation were coded to reflect order of mention by a coder who was blind to experimental condition.

In addition, the questionnaire contained the character's job competency and likeability ratings with a seven point scale that varied from 1 (very much so) to 7 (not at all). The percentage of similar characters thought to hold the same occupation was provided as a check on participants' perceptions of the race representations in the occupations. Participants could circle any percentage from 0 to 100%, in increments of 10. To ensure that participants had correctly perceived the race and occupation of the character, multiple choice questions concerning the character's race and occupation were included, as well as multiple choice filler items for hair and eye color. After questionnaire completion, participants filled out a debriefing form that asked about their perceptions of the research purpose, and were debriefed and excused.

Results

All participants reported the correct occupation and race of the character they viewed in response to the manipulation check questions; consequently, no responses were eliminated due to interpretation error of the stimulus character. The anonymous debriefing form and the oral debriefing indicated that participants believed the study concerned evaluations of storybook characters.

It was found that the order of mention of characters' race had a range, with race used as a first descriptor to race used as a ninth descriptor. The use of occupation as a descriptor had a range with occupation used as a first descriptor to occupation used as the eighth descriptor. Because the mention of race or occupation could fall along a continuum, a multivariate analysis of variance was conducted. Order of mention of race,

order of mention of occupation, the character's competence, the likeability of the character, and the percentage of similar characters thought to hold the same occupations served as dependent measures, and the character's actual race and occupation served as independent variables. The analysis revealed a significant interaction between race and occupation, $F(15, 495) = 2.25$ (Wilk's Lambda), $p < .01$.

As predicted, follow-up univariate analyses of variance indicated a significant interaction between race and occupation for the order of race mentions, $F(3, 183) = 3.30$, $MSE = 8.51$, $p < .05$. As shown in Table 1, Scheffe post hoc analyses indicated race was more likely salient and mentioned earlier in the spontaneous descriptions when the character was African American than when European American, for each occupation (all p 's $< .0001$). In fact, 86.9% ($n = 93$) of the participants made no mention of race at all when the character was European American, but 79.8% ($n = 67$) of the participants mentioned race when the character was African American. Moreover, when the character was European American a Scheffe post hoc comparison indicated no differences between occupations for order of race mentions, $p = .12$. However, the African American athlete and military officer characters differed in order of race mentions, with the athlete's race being less salient and mentioned later than the military officer's, $F(3, 80) = 3.21$, $MSE = 11.43$, $p < .05$, but neither of these characters differed from the other occupations. Thus, as predicted, race was a salient categorization label for European American participants when confronted with an outgroup character, in comparison to an ingroup character.

Follow-up univariate analyses of variance also indicated a significant interaction between race and occupation for the estimated percentage of similar characters in the occupations, $F(3, 183) = 6.39$, $MSE = 657.94$, $p < .001$. In Table 1, it can be seen that the estimated percentages of similar characters reflect approximate percentages found in the Statistical Abstract of the United States. A Scheffe post hoc comparison indicated no perceived differences in percentages by race in the military ($p = .26$) or the athlete ($p = .40$) occupations. However, European Americans were perceived as more likely to be employed as judges, $F(1, 58) = 22.72$, $p < .001$, and as

doctors, $F(1, 43) = 21.07$, $p < .001$, than African Americans. Thus, participants were aware of the representations within the occupations.

In addition to interactions the multivariate analysis indicated a significant main effect for the characters' race, $F(5, 179) = 43.59$ (Wilk's Lambda), $p < .001$. The univariate analysis showed there were differences in the perceived likeability of the two characters, $F(1, 183) = 7.72$, $MSE = 2.53$, $p < .01$. Both characters were liked, but the African American character was liked more ($M = 2.93$) than the European American character ($M = 3.61$), even though the characters were identical except for their color.

Moreover, the univariate analysis indicated a significant effect by race for the order of mention of occupation, $F(1, 189) = 5.87$, $MSE = 9.67$, $p < .05$. Overall, the European American characters' occupations were mentioned earlier and were more salient ($M = 4.20$) than the African American characters' occupations ($M = 5.04$), providing partial support for predictions.

The multivariate analysis found a significant main effect for occupation as well, $F(15, 495) = 3.00$ (Wilk's Lambda), $p < .001$. In the univariate analysis, competency of the character, $F(3, 183) = 4.86$, $MSE = 1.36$, $p < .01$, was influenced by the type of occupation. Although all the characters were considered fairly competent, a Scheffe post hoc comparison revealed the athlete was considered less competent ($M = 2.49$) than the doctor ($M = 1.73$) or judge ($M = 1.82$), but not less competent than the military officer ($M = 2.30$), $F(3, 187) = 6.24$, $MSE = 1.36$, $p < .01$.

Discussion

It was predicted that occupation (i.e., subordinate category information) would be spontaneously mentioned more frequently and earlier than race (superordinate category information) for all ingroup characters and for outgroup characters in nonstereotypical occupations, because occupation would be an outstanding and important descriptive category label. However results indicated occupation was mentioned earlier for ingroup characters than for outgroup characters, regardless of the stereotypicality of the occupation. An examination of means for the nonsignificant interaction indicated occupation

was mentioned much earlier for ingroup characters for each occupation in comparison to outgroup characters. Thus, subordinate information was more salient for ingroup characters than outgroup characters, as predicted.

There were striking differences in the order of race mentions for ingroup and outgroup characters. The outgroup characters were spontaneously described by a race label more frequently and earlier regardless of occupation, in comparison to ingroup characters. Thus for the outgroup character superordinate category information (i.e., race) was considered outstanding information with which to categorize the character by the European American participants.

Also, for the outgroup character there were differences by occupation in the order of race mentions. Specifically, the stereotypical and highly visible occupations (athlete and military) differed from each other, with the race of the African American athlete being mentioned later than the African American military officer. It is possible that race is not an important outgroup descriptor when athletes are involved. Devine and Baker (1991) identified "Black athlete" as a distinct stereotypical subtype and posited that occupation might be a more important category label than race for this subtype, in comparison to European American athletes. While that notion was not supported here, it was found that race was a less salient descriptive category label for the African American athlete, in comparison to the other African American occupations.

A superordinate information label (i.e., race) was used to describe outgroup characters, rather than a subordinate label (i.e., occupation), such that race was used for outgroup characters, regardless of the occupation's stereotypicality. This finding may have implications for the outgroup homogeneity effect, because European American participants invoked more abstract information (i.e., race) to spontaneously describe (and hence categorize) a character from the outgroup (African American), rather than more diversifying information such as occupation, which they used for the ingroup (European American) characters. One outcome for this result is that narrative information about the characters would be differentially remembered and distorted in order to conform to superordinate and subordinate categorizations.

It should be noted that sex has been reported "...to be the most common basis of social categorization..." (Stangor & Lange, 1994, p. 394). However, in the present research sex was not mentioned by participants; race was the primary category referred to for characters with the phrase, "The character was black/African American" or by merely using the terms "military" or "doctor". The phrase, "He was black/African American," or "He was a doctor" was rarely used, which would denote attention to the character's sex. Here, the lack of reference to sex may be a function of the fact that the stimuli did not contain both males and females for comparison purposes, as in prior research (Taylor, Fiske, Etcoff, & Ruderman, 1978; Oakes & Turner, 1986; Oakes, Turner, & Haslam, 1991). Moreover, males are considered the cultural norm (Fiske, 1998; Miller, Taylor, & Buck, 1991), and when the norm is presented "male" is not a useful piece of information.

Likewise, European Americans are the norm in the United States, and in the current research European American participants demonstrated race was not an outstanding label when the character fit the norm. Here, European American participants described ingroup characters with diversifying information with little reference to characters' normative race, but they automatically relegated other characters to outgroup status with a superordinate category label, usually the first label mentioned and based on skin color that differed from the norm. Future research should examine if normative standards are the driving force behind the use of superordinate and subordinate category labels, rather than distinctive features (Hewstone, Islam, & Judd, 1993).

In addition, future research should examine whether the same results would occur with minority group participants. Although European American participants were involved here, there is a growing literature that demonstrates that people cognitively process social information based on group membership, goals, and motives (Fiske, 2000), and that the experiences of European Americans cannot be equated to those of others who belong to ethnic minority groups (Grimes, Jr., & Reed, 1995). Consequently, it could be that minority group members would show a preference for spontaneous, descriptive mentions that provide subordinate labels (e.g., occupa-

tion) for their own group and superordinate labels (e.g., race) for European Americans. This would attest to an ingroup favoritism effect when called upon to spontaneously categorize a character, as was found for European American participants. In contrast, it might be that minority group participants would provide the same results as the European American participants here, but not as part of a response to a cultural norm. Rather, minority participants may spontaneously describe ingroup characters by race, instead of occupation, because "...objects toward which individuals hold highly accessible attitudes automatically attract attention when they enter the visual field" (Fazio & Dunton, 1997, p. 452). Thus, minority group participants may show a preference for spontaneously describing ingroup characters by race, because they hold highly accessible attitudes toward their group, rather than because their group is cognitively normative. At any rate, future research should address the possibility that the results found here are limited to European American participants.

Participants reported a greater liking for the African American character than the European American one, and a similar finding was found by Branscombe and Smith (1990) in response to photographs of job applicants who differed by race. Here, the characters were identical except for color depiction, and increased liking for the African American character may be an attempt to counter any appearance of prejudice. It could be argued that increased liking for the African American characters was a function of the greater salience of such characters. However, use of race as a descriptor for the African American character indicated participants categorized the character as an outgroup member and it would be expected that such categorization would produce less liking, rather than more, in comparison to the European American character (Dovidio & Gaertner, 1993), particularly when all participants reported the correct race. Moreover, the characters' perceived competency did not differ by race, and positive affect should result in similar ratings of likeability and competence.

These findings go beyond the examination of attitudes and feelings for outgroup members, and demonstrate how visual characteristics can be spontaneously utilized to process information about outgroups and ingroups. Future research should

examine if there are individual differences in the use of superordinate and subordinate information for categorizing. For example, regardless of ethnicity, those with high prejudice may be more inclined to use superordinate categories for outgroup members than those with low prejudice, resulting in less perceived outgroup variability, enhanced between group differences, and increased intergroup bias (Gaertner, Mann, Murrell, & Dovidio, 1989). This finding would further our knowledge on methods to combat biased processing of person information based on ethnic groups in our social world.

Table 1

Mean Order of Race Mentions by Character's Race and Occupation

Occupation	Character's Race	
	European American	African American
Military	9.61	1.41
Judge	9.31	3.86
Doctor	8.00	3.29
Athlete	9.33	4.64

Mean Estimated Percentage of Similar Characters in Occupations by Race and Occupation

Occupation	European American	African American
Military	53.04	44.12
Judge	58.21	24.29
Doctor	50.42	23.33
Athlete	37.14	44.80

Frequency and Percentages of Order of Race Mentions by Character's Race

Order	European American	African American
No Mention	93 (86.9%)	17 (20.2)
First Mention	6 (5.6%)	38 (45.2)
Second to Ninth Mention	8 (7.4%)	29 (34.5)

This research was supported in part by a grant from the University of Nebraska-Lincoln to the first author.

Appreciation is extended to Rosemary Esseks and Eric Ogaz for assistance in data collection.

References

- Branscombe, N. R., & Smith, E. R. (1990). Gender and racial stereotypes in impression formation and social decision-making processes. *Sex Roles*, 22, 627-647.
- Brewer, M. B. (1988). A dual process model of impression formation. R. Wyer & T. Srull (Eds.), *Advances in Social Cognition* (Vol. 1, pp. 1-36). Hillsdale, NJ: Erlbaum.
- Brewer, M. B., & Miller, N. (1988). Contact and cooperation: When do they work? P. Katz and D. Taylor (Eds.), *Eliminating racism: Profiles in controversy*, pp. 316-326. New York: Plenum Press.
- Brigham, J. C. (1971). Ethnic stereotypes. *Psychological Bulletin*, 76, 15-38.
- Clayson, D. E. & Maughan, M. R. (1986). Redheads and blonds: Stereotypic images. *Psychological Reports*, 59, 811-816.
- Devine, P. G. (1989). Stereotypes and prejudice: Their automatic and controlled components. *Journal of Personality and Social Psychology*, 56, 5-18.
- Devine, P. G., & Baker, S. M. (1991). Measurement of racial stereotype subtyping. *Personality and Social Psychology Bulletin*, 17, 44-50.
- Dovidio, J. F., & Gaertner, S. L. (1993). Stereotypes and evaluative intergroup bias. In D. M. Mackie & D. L. Hamilton (Eds.), *Affect, Cognition, and Stereotyping*. New York, Academic Press, 167-193.
- Duncan, B. L. (1976). Differential social perception and attribution of intergroup violence: Testing the lower limits of stereotyping blacks. *Journal of Personality and Social Psychology*, 34 590-598.
- Fazio, R. H., & Dunton, B. C. (1997). Categorization by race:

The impact of automatic and controlled components of racial prejudice. *Journal of Experimental Social Psychology*, 33, 451-470.

Fiske, S. T. (2000). Stereotyping, prejudice, and discrimination at the seam between the centuries: Evolution, culture, mind, and brain. *European Journal of Social Psychology*, 30, 299-322.

Fiske, S. T. (1998). Stereotyping, prejudice, and discrimination. D. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *Handbook of Social Psychology*, Vol. II. New York: McGraw-Hill, 357-411.

Fiske, S. T. (1993). Social cognition and social perception. *Annual Review of Psychology*, 44, 155-194.

Gaertner, S. L., Mann, J., Murrell, A., & Dovidio, J. F. (1989). Reducing intergroup bias: The benefits of recategorization. *Journal of Personality and Social Psychology*, 57, 239-249.

Grimes, Jr., S. O., & Reed, E. S. (1995). Prejudice: From Allport to DuBois. *American Psychologist*, 50, 96-103.

Haig, N. D. (1986a). Exploring recognition with interchanged facial features. *Perception*, 15, 235-247.

Haig, N. D. (1986b). High-resolution facial feature saliency mapping. *Perception*, 15, 373-386.

Hamilton, D. L. & Trolie, T. K. (1986). Stereotypes and stereotyping: An overview of the cognitive approach. In J. F. Dovidio & S. L. Gaertner (Eds.), *Prejudice, Discrimination, and Racism*, (pp. 127-163). New York: Academic Press.

Hewstone, M., Islam, M. R., & Judd, C. M. (1993). Models of crossed categorization and intergroup relations. *Journal of Personality and Social Psychology*, 64, 779-793.

Jones, J. M. (1997). *Prejudice and Racism*. New York: McGraw Hill.

Jones, J. M., & Morris, K. T. (1993). Individual versus group identification as a factor in intergroup racial conflict. S. Worchel & J. A. Simpson (Eds.), *Conflict between people and groups: Causes, processes, and resolution*. Chicago, IL: Nelson-Hall, 170-189.

Light, L. L., Kayra-Stuart, F., & Hollander, S. (1979). Recognition memory for typical and unusual faces. *Journal of Experimental Psychology: Human Learning and Memory*, 5, 212-228.

Linville, P. W., & Jones, E. E. (1980). Polarized appraisals of out-group members. *Journal of Personality and Social Psychology*, 38, 689-703.

Linville, P. W., Salovey, P., & Fischer, G. W. (1986). Stereotyping and perceived distributions. In J. F. Dovidio & S. L. Gaertner (Eds.), *Prejudice, Discrimination, and Racism*. New York: Academic Press, 165-208.

Mackie, D. M., & Worth, L. T. (1989). Differential recall of subcategory information about in-group and out-group members. *Personality and Social Psychology Bulletin*, 15, 401-413.

Martin, C. L. (1987, August). *The priming effects of physical differences on stereotyping*. Paper presented at the meeting of the American Psychological Association, New York.

McGuire, W. J., McGuire, C. V., Child, P., & Fujioka, T. (1978). Salience of ethnicity in the spontaneous self-concept as a function of one's ethnic distinctiveness in the social environment. *Journal of Personality and Social Psychology*, 36, 511-520.

Miller, D. T.; Taylor, B., & Buck, M. L. (1991). Gender gaps: Who needs to be explained? *Journal of Personality & Social Psychology*, 61, 5-12.

Omoto, A. M., & Thomsen, C. J. (1993, April). *Racial prejudice and perceptions of numerosity*. Paper presented at the meeting of the Midwestern Psychological Association, Chicago.

Park, B., & Rothbart, M. (1982). Perception of out-group homogeneity and levels of social categorization: Memory for the subordinate attributes of in-group and out-group members. *Journal of Personality and Social Psychology*, 42, 1051-1068.

Oakes, P. J., Haslam, S. A., & Turner, J. C. (1994). *Stereotyping and social reality*. Cambridge MA: Blackwell.

Oakes, P. J. & Turner, J. C. (1986). Distinctiveness and the salience of social category memberships: Is there a perceptual bias towards novelty? *European Journal of Social Psychology*, 16, 325-344.

Oakes, P. J., Turner, J.C., & Haslam, S. A. (1991). Perceiving people as group members: The role of fit in the salience of social categorizations. *British Journal of Social Psychology*, 30, 125-144.

Rothbart, M., & John, O. (1985). Social categorization and behavioral episodes: A cognitive analysis of the effects of inter-group contact. *Journal of Social Issues*, 41, 81-104.

Stangor, C., & Lange, J. E. (1994). Mental representations of social groups: Advances in understanding stereotypes and stereotyping. M. Zanna (Ed.), *Advances in Experimental Social Psychology*, 26, 357-416. New York: Academic Press.

Stangor, C., Lynch, L., Duan, C., & Glass, B. (1992). Categorization of individuals on the basis of multiple social features. *Journal of Personality and Social Psychology*, 62, 207-218.

Solso, R.L., & McCarthy, J.E. (1981). Prototype formation of faces: A case of pseudo-memory. *British Journal of Psychology*, 72, 499-503.

Taylor, S. E., Fiske, S. T., Etcoff, N. L., & Ruderman, A. J. (1978). Categorical and contextual bases of person memory and stereotyping. *Journal of Personality and Social Psychology*, 36, 778-793.

Ethnic Studies Review Volume 24

U. S. Bureau of Census (1992). *Statistical Abstract of the United States: 1992*. Washington, DC: U. S. Government Printing Office.

Willis Esqueda, C., Hoffman, S., & Wulf, C. (1999, March 26). Perceptions of Interminority and Intra-minority Derogation and Prejudice. Ashton Welch (Chair), *Racialization and Science*. Paper presented at the 1999 meeting of the National Association of Ethnic Studies, Kissimmee, FL.

Zebrowitz, L. A. (1990). *Social perception*. Pacific Grove, CA: Brooks-Cole.