

Remembering Race: White Racial Identity Attitudes and Two Aspects of Social Memory

George V. Gushue

Columbia University College of Physicians and Surgeons,
New York Presbyterian Hospital

Robert T. Carter

Teachers College, Columbia University

This study investigated whether the White racial identity statuses proposed by J. E. Helms (1984, 1990, 1995) could explain individual differences in how racial stereotypes influence memory for race-related information as measured by memory sensitivity and response bias on a recognition memory task. Participants were 197 White undergraduate and graduate students who read 3 stimulus paragraphs embedded with Black and White stereotypical items. The race of the target character in the stimulus was randomly reported to be Black or White. After a 1-week interval, participants completed a measure of recognition memory, as well as a measure of White racial identity attitudes. Results offer support for the hypothesis that the White racial identity statuses influence how racial stereotypes affect information processing.

Over the past several decades, as counseling psychologists have shown increasing awareness of the pervasive impact of race and culture on counseling (see Sue, Arredondo, & McDavis, 1992; Sue, Bingham, Porché-Burke, & Vasquez, 1999), efforts have been made to explicate the multiple ways in which race and culture influence counselors, clients, and the counseling process. Recent research in the area of social cognition may inform efforts to design more effective treatment strategies and facilitate the training of multiculturally competent counselors as this research sheds light on the mechanics of racial-cultural bias. Cognitive bias (e.g., stereotyping) has been cited as one contributing factor to culturally inappropriate practice (Geller, 1988; Sue & Sue, 1990). Hamilton (1981), following the work of Chapman (1967), and Chapman and Chapman (1967), proposed a model of *illusory correlation* to explain how stereotypes influence person perception (i.e., why people believe that they know something about an individual, when in fact the information is based on a stereotype). At least one study (Wampold, Casas, & Atkinson, 1982) found evidence of illusory correlations among counselor trainees, especially Whites processing information about people of color.

In recent years, researchers in social cognition have studied memory to elucidate and understand the cognitive processes that underlie results such as that of the illusory correlation just noted. Just where and when does stereotype-

based distortion occur in memory? Various models have been proposed. The two-high threshold model notes two independent cognitive processes (Lord, 1985; Martell & Willis, 1993; Snodgrass & Corwin, 1988) that occur in the performance of a simple recognition memory task (i.e., when a participant is asked to distinguish items that he or she has seen before from items he or she has not seen before). The first process is referred to as *memory sensitivity* or *discrimination*—how accurately can a person distinguish items that were previously seen (“old”) from items that were not previously seen (“new”)? The second process is called *response bias* or *decision criterion*—what is the propensity or the reluctance of a person who is uncertain to erroneously affirm that he or she has previously seen a new item when in fact he or she has not? Distortion may occur in either one of these processes.

Consider, for example, a narrative about an old man named MacDonald who is said to own a farm on which he raises ducks, cows, and pigs, who in turn make various vocalizations. This information is considered old because it was contained in the original story. In addition to some of these old items, a recognition measure would also include some new items (not contained in the narrative). For instance, participants might also be asked whether they remember statements in the story to the effect that MacDonald wore overalls, had white hair, or raised chickens (items not contained in the narrative). In this case, memory sensitivity would offer an index of the respondents’ ability to accurately distinguish what was said from what was not said (e.g., raises ducks vs. chickens, has a farm vs. wears overalls). Response bias, on the other hand, would provide an index measuring the extent to which the stereotype of “old farmer” predisposed participants to falsely believe that they read something about overalls, chickens, or white hair in the narrative. To the extent that response bias deviates in either direction from .5 (pure guessing), it is more likely that responses are influenced by stereotypes.

There is general consensus among researchers in social cognition that an individual’s prior knowledge and beliefs

George V. Gushue, Department of Psychiatry, Columbia University College of Physicians and Surgeons, and Columbia-Presbyterian Center, New York Presbyterian Hospital; Robert T. Carter, Department of Counseling and Clinical Psychology, Teachers College, Columbia University.

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Correspondence concerning this article should be addressed to George V. Gushue, Department of Psychiatry (NI-6), New York Presbyterian Hospital, Columbia-Presbyterian Center, 710 West 168th Street, New York, New York 10032. Electronic mail may be sent to gv3@columbia.edu.

form *schemas* that affect the way he or she processes information in a particular domain (see Taylor & Crocker, 1981; Taylor & Fiske, 1991). Schemas are not innate structures but simply an individual's acquired knowledge (or misinformation) about a particular domain. In the social sphere, individuals create schemas based, in part, on socially acquired racial and cultural information or stereotypes (Gaertner & Dovidio, 1986; Hamilton, Stroessner, & Driscoll, 1994). Schemas are thought to influence the way information is processed by creating expectancies. New data thus either conform to or deviate from what an individual expects to be the case based on his or her schemas. Numerous studies (see Taylor & Fiske, 1991) have reported differences in accuracy between memory for expected information (i.e., expectancy-congruent) versus memory for unexpected information (i.e., expectancy-incongruent).

The exact nature and direction of those differences has been the focus of considerable debate in the literature and among scholars favoring differing models of cognitive processing (Stangor & McMillan, 1992). For instance, the traditional schema model of memory predicts better memory for stereotype-congruent information (see Alba & Hasher, 1983; Taylor & Crocker, 1981). According to this theory, information that does not conform to an individual's stereotypes is noticed less, is more difficult to store, and consequently is more easily forgotten. Alternatively, the associative network model of memory predicts the opposite. According to this model, unexpected information does not fit neatly into preexisting stereotypes, therefore it demands more elaborate processing and consequently is better remembered (see Hastie, 1980, 1988; Srull & Wyer, 1989). Both models predict that people tend to falsely believe that they remember information consistent with their stereotypes. In a recent meta-analysis of the literature, Stangor and McMillan (1992) found that on recognition tasks overall, memory sensitivity (i.e., accuracy in discriminating new information from old) is greater for expectancy-incongruent information as predicted by the associative network models. That is to say, people have more accurate memory for information at odds with their stereotypes. At the same time, response bias (decisions about new information) favors expectancy-congruent information. That is, people deciding whether they have seen a new piece of stereotype-related information are more prone to falsely believe that they have previously seen that information if it conforms to their preexisting schemas. Stangor and McMillan (1992) also observed that these overall findings may be moderated by a number of factors and may vary from one experimental context to another suggesting some continuing controversy regarding which model of social memory (i.e., schema vs. associative network) will ultimately offer the most parsimonious explanation of the multifaceted processes involved (see Hamilton et al., 1994).

Regardless of the model used, a substantial body of research has confirmed the influence of prior knowledge and beliefs on memory when the domain in question is race. For instance, researchers have shown that race, along with gender, is a particularly salient marker that activates an individual's social schemas (Taylor & Crocker, 1981; Tay-

lor, Fiske, Etcoff, & Ruderman, 1978). Other researchers have demonstrated that Whites raised in the United States acquire a consistent set of race-based social schemas or stereotypes (see Devine, 1989; Karlins, Coffman, & Walters, 1969) and that these influence information processing (Dovidio, Evans, & Tyler, 1986; Gaertner & McLaughlin, 1983). In addition, research has noted individual differences regarding the extent to which those expectancies influence the processing of social information. For instance, Devine (1989) found that although high-prejudice and low-prejudice Whites did not differ in their knowledge of racial stereotypes, the low-prejudice participants were able to inhibit stereotype-based thoughts and replace them with thoughts contrary to racial stereotypes, whereas the high-prejudice participants did not do so.

Recently, the theoretical frameworks of racial identity (e.g., Carter, 1995; Helms, 1995) and racial consciousness (e.g., Rowe, Behrens, & Leach, 1995; Rowe, Bennett, & Atkinson, 1994) have been proposed to delineate individual differences in Whites' psychological orientation to race and to societal racism. Insofar as they specify and describe identifiable clusters of racial attitudes, both groups of theorists offer a more nuanced vocabulary for discussing the complexity of Whites' experience of race than previously afforded by discussions of prejudice noted above. This study has adopted the White racial identity model insofar as Helms (1995, 1996) has explicitly linked her conception of racial identity to information processing strategies—the focus of this investigation.

In her 1984 model, Helms proposed five White racial identity ego statuses: *Contact*, *Disintegration*, *Reintegration*, *Pseudo-Independence*, and *Autonomy* (see Helms, 1984, 1990, 1995). Helms (1995, p. 184) defined *statuses* as the "dynamic cognitive, emotional, and behavioral processes that govern a person's interpretation of racial information in her or his interpersonal environments." According to Helms, Whites may vary in their understanding of the meaning of race for themselves and for people of color in the context of societal racism, in the extent to which they are motivated by acceptance or rejection of prevalent racist ideologies, and also, by extension, in their dependence on socially acquired racial stereotypes in processing information. Helms (1995) suggested that the various racial identity ego statuses are associated with differing information processing strategies.

For instance, in a less evolved status such as *Contact*, in which an individual may describe him- or herself as color-blind and claim not to notice race, naïveté to racial cues may cause stereotypes to be less salient (i.e., less easily activated) and consequently the stereotypes may have only a limited impact on memory for racial information. Helms (1995) suggested that the processing of racial information during this status might be characterized by "denial, obliviousness or avoidance" (p. 188). Conversely, the intense emotional upheaval occasioned by the conflict between an individual's desire to be an ethical person and the social and internal pressures to preserve the benefits of unearned White privilege (*Disintegration*) would likely have quite a different impact on the processing of racial information. For instance,

Helms (1995) suggested that such a person might seek to cope with the inner turmoil by suppressing information. Another possibility might be that the uncertainty and confusion of Disintegration would lead to a heightened sensitivity to racial cues, resulting in the increased influence of stereotype-based expectancies on memory. Helms (1995) also proposed that the Reintegration status, which is characterized by dichotomous attitudes (e.g., anti-Black and pro-White), may be associated with the distortion of information in a way that favors Whites.

The Pseudo-Independent status is also marked by an intellectual commitment to a set of rigidly held beliefs about racial groups, though the "politically correct" content of these beliefs is quite different from that of Reintegration. Helms (1995) suggested Pseudo-Independence may be characterized by "reshaping racial stimuli to fit one's own 'liberal' framework" (p. 188). It might also be the case that the shift in beliefs associated with this status signals a change in how an individual applies race-based schemas in cognitive processing. For instance, one might expect to find that the socially acquired stereotypes about Blacks exert less influence on how things are remembered or that stereotypes about Whites have heightened influence given that those for whom this status predominates are taking the first steps away from racism and toward forging a new White identity. Finally, Helms expects the most evolved status (Autonomy) to be characterized by "flexible analyses and responses to racial material" (p. 188). Although a person in this status will know and be aware of cultural race-based social schemas, he or she should have the least identification with them, and consequently, they should have the least impact on how he or she remembers things.

In summary, to the extent that the different racial identity statuses proposed by Helms moderate an individual's racial schemas, they may in turn influence one's cognitive processing of racial information. For instance, a person whose predominant status is characterized by acceptance of and commitment to prevailing societal racist stereotypes about Blacks and about Whites might show greater impact of expectancies created by those stereotypes in his or her memory for people and events. Thus, according to the associative network model of memory reported above, one might expect such a person to have greater accuracy (i.e., memory sensitivity) in remembering White stereotypes attributed to a Black person because that would be expectancy-incongruent information and consequently demand more cognitive elaboration prior to storage in memory. However, when in doubt, the same person should be more likely to falsely believe that he or she remembers Black stereotypes about a Black person when in fact no such information was ever communicated (response bias). Conversely, Whites with more evolved statuses have begun to attain a critical distance from the prevailing societal racist stereotypes and should therefore show different or fewer stereotype-based expectancy effects (i.e., for stereotype-congruent vs. stereotype-incongruent information) in memory for racial information.

The primary goal of this study was to offer a preliminary exploration regarding whether the White racial identity

statuses proposed by Helms do in fact influence the processing of race-related information in ways consistent with her theory and the research in social cognition. Information processing was operationalized as memory sensitivity and response bias for both Black and White stereotypes attributed alternately to a Black or a White target character in a stimulus paragraph constructed for this study.

Method

Participants

The participants included in this study were 197 White undergraduate and graduate students who agreed to participate in a study on the development of reading materials and who completed both administrations of instruments at a 1-week interval. Participants were volunteers drawn from 30 classes at seven colleges or universities in the northeastern United States. Sixty-eight percent of the participants were attending a public college or university; 32% were attending private institutions. Undergraduates were drawn from classes in economics, English, statistics, sociology, and psychology. Graduates were drawn from classes in education and organizational behavior. Sixty-two men and 135 women participated. The average age was 23.3 ($SD = 8.17$) years, and on average participants had completed 14.11 ($SD = 1.97$) years of school. The mean reported socioeconomic status was middle class ($M = 5.47$; $SD = 1.21$, where 1 = *very poor*, 5 = *middle class*, and 9 = *very rich*).

Measures

White Racial Identity Attitude Scale (WRIAS). This scale was rationally constructed by Helms and Carter (1990) to measure attitudes associated with the five White racial identity development statuses theorized by Helms (1984). The scale consists of 50 items assessing Whites' racial attitudes using five distinct 5-point, Likert-type subscales ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Scale scores are derived by summing the 10 appropriately keyed items for each attitude scale. In this manner, each attitude has a raw scale score that could range from 10 to 50. Helms and Carter (1990) reported internal consistency reliabilities (using Cronbach's alpha) of .53, .77, .80, .71, and .67 for Contact, Disintegration, Reintegration, Pseudo-Independence, and Autonomy subscales. For the sample included in this study, Cronbach's alphas were as follows: Contact (.38), Disintegration (.73), Reintegration (.76), Pseudo-Independence (.62), and Autonomy (.59). The Contact reliability for this sample appears low. Helms (1996) has suggested that suppressed alpha coefficients may reflect the existence of some constraints in the sample studied. Thus, the Contact reliability may represent a restricted range in responses suggesting homogeneity regarding this status among participants perhaps attributable to more or less equivalent patterns of cross-racial experience for this student sample. Their racial identity development may reflect this homogeneity, resulting in attenuated reliability coefficients in the Contact subscale. Helms (1997) has suggested that such similarity in experience might especially affect the Contact status insofar as it is the starting point for racial identity development. Additional reliability and validity information is reported by Helms and Carter (1990). Carter (1996) recommended the use of percentile scoring in research to explicate the relative importance of particular statuses to each individual's overall profile. Evidence supporting the content validity of the scales has been provided in a number of empirical tests (see Carter, 1995, for a review of this literature).

"The Story of Michael." "The Story of Michael" is a three-paragraph narrative constructed specifically as a stimulus for the present study. In the narrative, 28 discrete thoughts, behaviors, and traits are ascribed to Michael that were previously coded such that 14 represent White stereotypes and 14 represent Black stereotypes. To construct the narrative, an initial master list of 142 Black and White stereotypes was first generated drawing upon several sources: stereotypical traits suggested in the literature (Katz, 1985; Stewart & Bennett, 1991), the 1991 General Social Survey (Davis & Smith, 1993), and suggestions from a panel of five advanced graduate students engaged in research on psychology and race.

Next, to determine which stereotypes to include in the narrative from this initial list of 142 items, we asked two groups of raters to assess the degree to which the statements generated were associated with Blacks or Whites, respectively. Raters were volunteer graduate students whose professors had agreed to give a portion of their class time to this project. Participants were asked to rate each statement on a scale ranging from 1 (*much more likely to be true of a Black person than of a White person*) to 9 (*much more likely to be true of a White person than of a Black person*). To control for social desirability (see Devine, 1989), we instructed raters that what was being sought was not their personal opinion, but rather what they thought that White Americans in general might think about each statement. The first group of raters ($n = 36$) included 9 men, 25 women, and 2 with missing gender data. The group included 1 Asian American, 28 Whites, 2 Latinos, and 1 with missing racial data. The mean age was 26.5 ($SD = 6.05$) years. The mean self-reported socioeconomic status was 5.8 ($SD = 1.6$), where 1 = *very poor*, 5 = *middle class* and 9 = *very rich*. The modal number of years of education for the sample was 17. The second group of raters ($n = 11$) was composed of 2 men, 8 women, and 1 with missing gender data. The mean age of this group was 28.5 ($SD = 0.68$) years. The group's racial composition included 1 Asian American, 4 Blacks, 5 Whites, and 1 multiracial participant. Participants reported a mean of 18.55 ($SD = 0.34$) years of education.

Adapting the procedures used in Srull (1981) and Stangor (1988), we took Black stereotypical items embedded in the narrative or the recognition task from the statements for which the sample means were less than or equal to 4. White stereotype items embedded in the narrative or the recognition task were taken from the statements for which the sample means were greater than or equal to 6. Because there was some item overlap, several stereotypes were rated by both groups of raters. In those cases, a stereotype had to meet the criterion for both groups to be included in the narrative.

A pilot study was conducted to test the stimulus narrative as well as the administration of the various instruments used in the study. This sample consisted of 20 White graduate student volunteers, who were allowed to complete the instruments during class time. The sample was composed of 16 women and 4 men. The mean age was 27.4 ($SD = 6.52$) years. Participants reported a mean of 16.8 ($SD = .77$) years of education and a mean socioeconomic status of 6.15 ($SD = 1.39$), where 1 = *very poor*, 5 = *middle class*, and 9 = *very rich*. Eleven White participants randomly received packets that presented Michael as Black. All of these participants accurately recalled that Michael was Black 1 week later. However, of the 7 White participants who randomly received a packet that presented Michael as White, only 1 was able to correctly recall Michael's race a week later. Five other participants incorrectly recalled Michael as having been Black. One participant did not respond to this question. That participants accurately recall of Michael's stated race was considered critical because the proposed study sought to measure the effects of stereotype-related expectancies.

To counteract this difficulty, an additional task was designed prompting participants to note Michael's race before actually reading the story from beginning to end. It was hoped that this added task would make Michael's race more salient and that the additional processing of this information would result in accurate participant recall of Michael's race the following week.

We conducted a second pilot study to test the effect of the added task on the participants' ability to accurately recall Michael's stated race ($n = 7$). Participants were graduate students who had neither been raters nor been participants in the previous pilot study. This sample included 2 men and 5 women. The median age was 31 years. Participants reported a mean of 19.43 ($SD = 0.81$) years of education and a mean socioeconomic status of 6.29 ($SD = .36$), where 1 = *very poor*, 5 = *middle class*, and 9 = *very rich*. Seven White students received packets that presented Michael as White. This time, when performing the recognition task the following week, all 7 participants were able to recall that Michael was White. This finding suggested that the added task had strengthened the initial manipulation sufficiently, making it effective for purposes of the study.

Personal data sheet. A personal data sheet was used to investigate participants' personal characteristics and family background. Participants were asked to indicate their class standing, age, gender, race, primary ethnic designation, citizenship, years of residence in the United States, number of years of education, and self-reported socioeconomic status.

Procedure

The study was presented to the participants as an exploration of "face-value appropriateness" of reading material for grade level involving two parts to be administered over consecutive weeks. The participants were given a two-page narrative ("The Story of Michael") to read. Approximately half the participants (randomly assigned) received a story that presented Michael as Black; the other half received a story that presented Michael as White. Otherwise, the narratives read by each group were identical. The story described an individual possessing characteristics, performing activities, and expressing preferences, some of which were associated with social stereotypes of Blacks and others of which were associated with social stereotypes of Whites. First, participants were asked to skim the story noting the answers to three factual questions about Michael: his age, his race, and the floor of the building on which he worked (added in response to results of Pilot Study 1, just noted). Second, participants were asked to read the narrative carefully and to note an estimate of the grade level for which they thought this passage might be appropriate, as well as the three most difficult vocabulary items contained in the passage. When they were finished, participants were asked to fill out a brief demographic questionnaire and were told that the following week, they would be asked to answer more questions and to fill out two brief questionnaires.

After a time interval of 1 week, participants were asked to perform the recognition task. They were given a list of statements and asked to note after each one whether they had read that particular statement the previous week in "The Story of Michael." The 28 stereotype-related statements in the recognition task were divided into 4 discrete categories on the basis of (a) whether they represented Black or White stereotypes and (b) whether they had been included in the story (old) or were now being seen by the participants for the first time (new). At the end of the recognition task, as a manipulation check, participants were asked to list Michael's age, race, and profession. The purpose of this check was to ascertain whether the participants accurately remembered the race ascribed to Michael.

When they completed the recognition task, participants returned the pages with their answers to the researcher and assistants and were then asked to fill out the WRIAS. When they finished, participants were given a debriefing sheet and allowed to ask questions about the study.

The recognition task scores were calculated by counting the number of times a participant correctly remembered having seen a particular statement in "The Story of Michael" ("hits") and also by counting the number of times a participant falsely thought he or she remembered having read a statement that was not included in the narrative ("false alarms"). As was noted above, because recent studies have suggested that bias may occur in one of two discrete moments in the recognition task, two sets of scores were generated for each participant. The first set of scores reflected both accurate memory (hits) and false memory (false alarms) for Black and White stereotypes, respectively. Neither hit rate nor false alarm rate alone provides a reliable measure of accuracy (see Lord, 1985; Srull, 1984). Accordingly, following the two-high threshold model noted in the introduction, the first set of memory scores was calculated as a *discrimination index* (Snodgrass & Corwin, 1988), taking the hit rate (HR) minus the false alarm rate (FAR). This provides a measure of a person's accuracy in distinguishing information that has already been seen (old) from information that is being introduced for the first time (new). This score is referred to in the cognition literature as a score of *Memory Sensitivity* (MS). Thus,

$$MS = HR - FAR.$$

Each participant received one MS score for Black stereotypes and another score for White stereotypes.

Again, following the two-high threshold model, a second set of scores was calculated to reflect the other potential source of bias in the recognition memory task (i.e., the probability that an individual, when uncertain, will falsely think that he or she remembers information that is in fact new). Snodgrass and Corwin (1988; see also Martell, Guzzo, & Willis, 1995; Martell & Willis, 1993) calculated a *bias index* as the FAR divided by 1 minus the remainder of the HR minus the FAR. This provides a measure of a person's tendency to affirm (or deny) that he or she has seen information that he or she did not in fact see. This score is referred to in the cognition literature as a score of *Response Bias* (RB) regarding new information. Thus:

$$RB = FAR/[1 - (HR - FAR)].$$

Each participant received one RB score for Black stereotypes and another for White stereotypes. Left to chance, one would expect a 50% probability that a person would either affirm or deny seeing an item about which he or she was unsure (i.e., a pure guess). Preexisting expectancies (such as stereotypes) may skew a person's guesses in one direction or the other.

Results

Manipulation Check and Preliminary Analyses

As noted above, it was found during Pilot Study 1 that White participants were unable to correctly remember the race of the target (Michael) after a 1-week interval, especially when told that Michael was White. Accordingly, it was decided to first determine the accuracy of recall for participants in the study. A total of 253 volunteers participated in

both administrations of the instruments. Some 132 participants completed survey packets that identified Michael as Black, and of these, 119 (90%) were able to correctly recall his race after a week. Eight participants in this group (6%) responded that he was White (missing responses = 5, or 4%). Of the 121 participants who had been informed that Michael was White, 91 (75%) correctly recalled his race at a 1-week interval, whereas 22 participants in this group (18%) responded that he was Black. In addition, 1 participant responded that Michael was Native American (1%), another 3 didn't know (3%), and 4 participants (3%) did not respond. A *t* test indicated that the percentage of accurate recall was significantly different $t(251) = 3.21, p < .001$, for the two conditions on the basis of the race (Black or White) attributed to Michael. This ratio of accuracy represents an improvement over Pilot Study 1 and is likely attributable to the strengthened manipulation reported above. A multivariate analysis of variance testing for differences in racial identity status between those who correctly recalled the race of the target and those who altered the race of the target was not significant: Hotelling's $T^2 = .03, F(5, 234) = 1.61, p < .16$. The racial identity status that most approached significance was Contact, Univariate $F(1, 238) = 2.75, p = .10$. Given that race is one of the most salient of differences (Taylor & Crocker, 1981), that visual memory for faces is one of the more accurate forms of memory (Friedes, 1974; Shapiro & Penrod, 1986), and that in an actual personal encounter it would be highly unlikely that one would forget (or change) a person's race, only the data for those participants who accurately recalled the race of the target ($n = 210$) were included in subsequent analyses.

Because the recognition measure had been constructed specifically for use in this study, the variability of responses to each stereotype was also assessed. Items about which nearly all participants agreed (either that they had or had not been contained in the original stimulus paragraph) would provide little information regarding variations in cognitive processing. Because measures of response bias are predicated about individuals in an uncertain state (Snodgrass & Corwin, 1988), it was decided to accept only those items with a 30% to 70% probability range to ensure at least a moderate level of sample-wide variability in response to any particular stereotype. Consequently, an item was retained for inclusion in the analyses if more than 30% and fewer than 70% of the participants stated that they remembered it from the stimulus paragraph. On the basis of this criterion, a total of 17 items (5 old Black items, 4 old White items, 5 new Black items and 3 new White items) were included in subsequent analyses (see Table 1).

Racial identity scores were calculated as percentile scores following norms published in Carter (1996). Mean substitutions were used for missing values. Of the 210 cases in which respondents correctly recalled the race of the target, 3 were eliminated owing to incomplete responses. The remaining data were screened for outliers, and 10 cases in which univariate outliers were detected were subsequently deleted. Subsequent analyses revealed no further univariate or multivariate outliers. Square root and inverse transformations were used to normalize the racial identity distributions.

Table 1
Items Used in Recognition Task

Item	Old vs. new item	Black vs. White stereotype	Stereotype ratings		% Yes Black stimulus	% Yes White stimulus
			Group 1	Group 2		
Michael grew up in an extended family.	Old	Black	3.11	3.10	.57	.52
Some fear Michael could be violent.	Old	Black	2.72	—	.31	.37
Michael is emotionally expressive.	Old	Black	3.83	2.82	.44	.47
Michael is the child of a single mother.	Old	Black	2.33	1.91	.64	.54
Michael is considered hip.	Old	Black	3.77	—	.54	.55
Michael is considered a money-hoarder.	Old	White	6.61	6.46	.56	.62
Michael likes Mozart.	Old	White	7.33	—	.49	.54
Michael is considered sexually repressed.	Old	White	6.28	—	.37	.51
Michael has a brother who is a surgeon.	Old	White	7.78	—	.47	.39
Michael has a good sense of rhythm.	New	Black	2.31	—	.66	.63
Michael has a brother who is a gang member.	New	Black	2.39	—	.66	.55
Michael lived on welfare growing up.	New	Black	2.41	—	.56	.52
Michael plays basketball well.	New	Black	2.11	—	.66	.57
Michael's father abandoned the family.	New	Black	2.56	—	.50	.49
Michael is considered a flashy dresser.	New	Black	3.17	—	.39	.36
Michael is known for being punctual.	New	White	—	7.36	.66	.66
Michael is considered individualistic.	New	White	6.00	—	.61	.60
Michael likes Woody Allen movies.	New	White	7.53	—	.41	.37

Note. For old vs. new item, *old* = item contained in original stimulus and *new* = item introduced in recognition task. For stereotype ratings, 1 = *more likely to be associated with a Black person* and 9 = *more likely to be associated with a White person*. Dash indicates that item was not rated by this group. Group 1 = first group of raters ($n = 36$). Group 2 = second group of raters ($n = 11$). % Yes for Black stimulus = probability of a response indicating that the item had been contained in the stimulus paragraph for the Michael is Black condition ($n = 108$). % Yes for White stimulus = probability of a response indicating that the item had been contained in the stimulus paragraph for the Michael is White condition ($n = 89$).

Analyses did not reveal singularity among the variables. Assumptions of multivariate normality were met. A total of 197 cases were included in the analyses. Correlations for all variables by condition (Black vs. White target) are noted in Table 2.

Analyses Testing Hypotheses

To test whether racial identity influences accuracy on a recognition memory task, we conducted two canonical correlation analyses for each of the two conditions created by the reported race (Black or White) of the target (Michael). For each condition, one analysis was conducted to assess memory sensitivity (accuracy in distinguishing stereotypes seen before from stereotypes not seen before) and another to assess the response bias (tendency to affirm or deny that

one has seen a stereotype that one has not seen). In the first case, the MS Score for Black stereotypes and the MS Score for White stereotypes formed the criterion variables. In the second case, the RB Score for previously unseen Black stereotypes and the RB Score for previously unseen White stereotypes were the criterion variables. In each analysis the five subscales of WRIAS formed the predictor variables.

First, for the condition in which the participants were informed that Michael was Black, two canonical correlation analyses were conducted to test the relationship between White racial identity attitudes and memory sensitivity and response bias respectively. For MS, a dimension reduction analysis showed the first canonical pair to be significant (Wilks's $\Lambda = .81, p = .01$). The canonical correlation for the pair was .38 (see Table 3). To establish which of the

Table 2

Means, Standard Deviations, and Correlations for Racial Identity, Memory Sensitivity, and Response Bias

Variable	1	2	3	4	5	6	7	8	9	M	SD
1. Contact	—	-.13	-.26*	.10	.13	.07	.12	-.002	-.14	30.7	4.25
2. Disintegration	.13	—	.78**	-.52**	-.51**	-.05	-.05	-.11	-.24*	23.6	5.24
3. Reintegration	-.02	.72**	—	-.53**	-.56**	-.11	-.17	.001	-.17	22.5	5.72
4. Pseudo-Independence	.12	-.55**	-.40**	—	.40**	.06	.07	.11	.35**	31.9	4.53
5. Autonomy	.23*	-.30**	-.32**	.50**	—	-.08	-.12	-.11	-.22*	29.5	3.83
6. Black MS	-.03	.10	-.10	-.02	-.08	—	-.10	-.01	-.01	-0.03	0.25
7. White MS	-.28**	.10	.08	-.08	-.18	.03	—	.14	-.02	-0.02	0.29
8. Black RB	.04	-.01	.02	-.09	.05	-.05	.17	—	.41**	0.50	0.20
9. White RB	.13	-.01	.08	-.07	-.04	.01	.10	.40**	—	0.52	0.18
M	31.1	23.2	23.0	31.5	30.0	-0.06	-0.06	0.53	0.52		
SD	4.02	5.08	5.63	4.19	4.25	0.22	0.32	0.19	0.19		

Note. White stimulus condition ($n = 89$) appears above the diagonal; Black stimulus condition ($n = 108$) appears below the diagonal. Black MS = memory sensitivity for Black stereotypes; White MS = memory sensitivity for White stereotypes; Black RB = response bias for Black stereotypes; White RB = response bias for White stereotypes. All means and standard deviations are for raw scores. Correlations for racial identity statuses are for the transformed scores used in the analyses. * $p < .05$. ** $p < .01$.

White racial identity scales and which of the MS variables contributed most strongly to this relationship, we examined the canonical relationship for the significant pair. A cutoff of a .3 loading on the structure matrix was adopted for interpretation, following convention (cf. Tabachnick & Fidell, 1989). The racial identity statuses that were most significantly related to the racial identity variate were Contact (-.63), Autonomy (-.49), and Disintegration (.37). An inspection of the standardized function coefficients reveals that of the three, Disintegration (1.10) contributed most strongly to this variate, followed by Contact (-.74) and Autonomy (-.43). Given the prominence of the Disintegration attitudes on the function matrix and the negative loadings of both Contact and Autonomy, this variate might be said to describe an underlying dimension that could be characterized as one of *racial anxiety*.

MS for both Black and White stereotypes loaded on the memory sensitivity variate with correlations of .80 for White stereotypes and .62 for Black stereotypes. Similarly, an

inspection of the standardized coefficients shows that White items (.78) contribute somewhat more strongly than Black items (.60) to the formation of this variate. Overall, this variate refers to *accuracy in memory* for race-related information, particularly, for racial information contrary to expectation (i.e., White items attributed to a Black subject) because the latter items load slightly more strongly. Thus, the results of this canonical analysis suggest that heightened racial anxiety in Whites may be related to greater accuracy in memory for race-related information in general when considering a Black target, but especially for stereotype-incongruent information. Said another way, for Whites observing a Black person, heightened anxiety about race may be linked to better memory for racial stereotypes (both Black and White), but especially White ones.

A canonical analysis testing the relationship between racial identity and RB (i.e., the tendency to affirm or deny that one has seen information that he or she has not seen) for the condition in which the participants were told that Michael was Black yielded no significant results (Wilks's $\Lambda = .92, p = .61$).

Second, for the condition in which the participants were informed that Michael was White, another two canonical correlation analyses were conducted to test the relationship among White racial identity attitudes, MS, and RB. For MS (i.e., accuracy in distinguishing old from new information), a canonical correlation analysis conducted to test the relationship between White racial identity attitudes and MS for Black and White racial stereotypes yielded no significant results (Wilks's $\Lambda = .92, p = .74$).

In assessing RB (i.e., the tendency to affirm or deny that one has seen stereotype-related information that in fact he or she has not seen) with the White target, a dimension reduction analysis showed that the first canonical pair was significant (Wilks's $\Lambda = .80, p = .04$) as is noted in Table 4. Because all of the variables exceed .3 loading on the structure matrix, a more stringent cutoff of .55 was adopted to facilitate interpretation following Comrey (1973, p. 226), who described this loading as a "good" measure of the

Table 3

Canonical Correlation for White Racial Identity and Memory Sensitivity for a Black Stimulus

Variable	Canonical variates			
	M	SD	Correlation	Standardized coefficient
White racial identity set				
Contact	31.1	4.02	-.63	-0.74
Disintegration	23.2	5.08	.37	1.10
Reintegration	23.0	5.63	.01	-0.77
Pseudo-Independence	31.5	4.19	-.19	0.40
Autonomy	30.0	4.25	-.49	-0.43
Redundancy	0.02			
Memory sensitivity set				
Black stereotypes	-0.060	0.22	.62	0.60
White stereotypes	-0.064	0.32	.80	0.78
Redundancy	0.07			
Canonical correlation	0.38			

Note. Wilks's $\Lambda = .81; p = .01; n = 108$.

Table 4
Canonical Correlation for White Racial Identity and Response Bias for a White Stimulus

Variable	Canonical variates			Standardized coefficient
	<i>M</i>	<i>SD</i>	Correlation	
White racial identity set				
Contact	30.7	4.25	-.35	-0.44
Disintegration	23.6	5.24	-.56	-0.23
Reintegration	22.5	5.72	-.43	0.20
Pseudo-Independence	31.9	4.53	.85	0.77
Autonomy	29.5	3.83	.52	0.28
Redundancy	0.06			
Response bias set				
Black stereotypes	0.50	0.20	.33	-0.09
White stereotypes	0.52	0.18	1.00	1.03
Redundancy	0.10			
Canonical correlation	0.42			

Note. Wilks's $\Lambda = .80$; $p = .04$; $n = 89$.

variate. Of the racial identity set, the variables most strongly related to the canonical variate are Pseudo-Independence (.85) and Disintegration (-.56). An examination of the standardized coefficients confirms the predominance of the contribution of Pseudo-Independence (.77) versus Disintegration (-.23) to the makeup of this variate. Given the strength of the intellectual commitment to a nonracist stance suggested by Pseudo-Independence coupled with the lack of racial ambivalence suggested by the negative relation to Disintegration, the variate might be described as *strident nonracism*.

Of the response bias set, only the response bias for White stereotypes (1.00) loads on the decision criterion variate above the .55 cutoff. Its standardized coefficient (1.03) confirms that it makes by far the strongest contribution to this variate, which might be described as "*seeing White*" (i.e., inclined to falsely think one remembers White stereotypes even when there are none to be remembered).

Overall, the results of this canonical analysis suggest that higher levels of strident nonracism may be related to an increased disposition to think one falsely remembers White stereotypical information about a White subject. Said another way, for Whites considering another White person, higher levels of strident nonracism may be related to a tendency to skew one's memory with false recollections of White stereotypes—in essence making the target seem more stereotypically White than he or she is in reality.

Discussion

White Racial Identity and Memory

This investigation represents a first attempt to explore the connections between Helms's racial identity theory and social cognition. It was hypothesized that attitudes representing less integrated racial identity statuses would be associated with a greater influence of socially learned race-based expectancies (i.e., stereotypes) as measured by memory sensitivity and response bias. Conversely, it was hypoth-

esized that attitudes representing more evolved racial identity statuses would be associated with a decreased influence of socially learned race-based stereotypes in memory sensitivity and response bias.

Regarding memory sensitivity for race-related information (accuracy in discriminating information that one has previously seen from information that is new), a canonical correlation analysis found a significant relationship between an underlying dimension characterized as racial anxiety and accuracy in memory for race-related information when the target character was said to be Black. The racial anxiety dimension was positively associated with the Disintegration status and negatively with Contact and Autonomy. The accuracy in memory dimension included both White and Black stereotypes, with a slightly higher loading for White stereotypes. As noted before, Disintegration is a status characterized by strong and conflicting emotions about race (as opposed to Contact and Autonomy). It would seem consistent with social memory theory that a White person in such heightened emotional state might be especially sensitive (perhaps even hypervigilant) regarding racial stereotypes when considering a Black person, thus causing that information to receive more processing and to be more accurately remembered. For instance, Kim and Baron (1988) reported that in a state of arousal people increase their reliance on stereotypes for processing information. That memory for stereotype-incongruent information (White stereotypes ascribed to a Black person) is weighted more strongly than memory for stereotype-congruent information is also consistent with the overall finding reported by Stangor and McMillan (1992) favoring memory sensitivity for stereotype-incongruent information. Thus, these data suggest that when a White person's salient racial identity status is primarily characterized by strong emotional conflict about race (such as Disintegration), he or she may tend to remember race-related information about people of color (especially information contrary to preexisting racial schemas) with greater accuracy. Perhaps one secondary gain from any enhanced memory for exceptions to social stereotypes would be to make people of color seem less different or threatening and consequently reduce some of the anxiety associated with the Disintegration status.

Regarding response bias (the tendency to falsely believe that one has already seen something which he or she has not), a significant positive relationship was found between a dimension described as strident nonracism and a tendency to think one falsely remembers new White stereotypes attributed to a White target. The strident nonracism dimension was strongly and positively associated with Pseudo-Independence and more weakly and negatively associated with Disintegration. It is a dimension that suggests the intellectual resoluteness of Pseudo-Independence without the ambivalence or conflict of Disintegration. The response bias dimension was composed almost entirely of response bias favoring White stereotypes. At first glance, this finding may seem surprising. One might expect that as a more evolved racial identity status, Pseudo-Independence would be associated, if anything, with less bias rather than more in processing racial information. However, as previously noted,

Helms (1995) has suggested that information processing by those for whom this status predominates is characterized by "reshaping reality and selective attention" (p. 185). Although Pseudo-Independence does represent a move away from the entrenched racism of prior statuses, it is nevertheless a shift from one externally defined set of stereotypes to another. Socially acquired racist stereotypes are discarded in favor of a new "politically correct" set of schemas. A person for whom the Pseudo-Independent status is salient is often at pains to distinguish him- or herself from "ordinary Whites" who "are part of the problem" when it comes to race. It makes sense then that a person for whom Pseudo-Independent attitudes predominate might process information about other Whites in a skewed way, tending to see them in a stereotypical manner, perhaps as a way of bolstering his or her own nascent redefinition of Whiteness.

Race and Memory

The results of the manipulation check should also be noted. There was a significant difference in participants' ability to accurately recall the race of the stimulus depending on whether the character in the story was presented as Black or White. This result seems to be related more to race than to racial identity per se. Participants who were informed that the stimulus was Black had little difficulty (6% error rate) recalling him as such a week later. However, a significant number of those participants (18% error rate) who were informed that Michael was White recalled him as Black after a week interval. How might this be understood? One explanation for the racial switching in general (both Black to White and White to Black), a phenomenon that occurs rarely in real life, may be that these participants were attempting to resolve the dissonance they experienced between the Black and White stereotypes by changing Michael's race to fit the overall impression they had formed regarding the character in the narrative. Why did significantly more readers switch the stimulus's race from White to Black than the other way around? It may be that the Black stereotypes in the stimulus narrative proved particularly salient for these readers. For instance, the fact that Michael was said to be hip and to like blues, soul food, and Spike Lee movies may have proved more memorable than the fact that he was portrayed as a driven intelligent lawyer. Some 18% of the participants, who found the former Black stereotypes incongruent with their image of Whites, may have resolved the incongruence not by forgetting these attributes, which had become all the more memorable because they were surprising, but by simply changing Michael's race. Thus, their expectancies were now driven more by the vivid images of these stereotypes than by written statements regarding Michael's race.

Another possibility might be rooted in the fact that one of the sequelae to privileged sociopolitical status is that most Whites find it possible (even desirable) not to think about race (Helms, 1995, 1996). In such a context of obliviousness, where White is assumed, an explicit inquiry about race may be taken as a cue that the question involves a person of color, because only such a person would have a race

requiring comment. At the very least, this finding offers further confirmation that race-based expectancies do influence the processing of race-related information.

Implications

Both the training of counselors and counseling itself are enterprises whose efficacy depends on the ability to process large quantities of complex information accurately. The results above suggest that for Whites, one's racial identity may have some bearing on how one processes information about race. Numerous approaches to multicultural counselor training have been proposed (see Reynolds, 1995), reflecting a growing concern to "understand culture and ethnicity factors in order to provide appropriate psychological services" (American Psychological Association, 1993, p. 45). This study offers partial support to those who argue that the mere acquisition of information about diverse racial and ethnic groups is not enough to ensure cultural competence (Ivey, Fouad, Arredondo, D'Andrea, 2000; Sue et al., 1999). The results reported here suggest that counselor trainees at lower levels of racial identity might be more apt to distort the information they are provided at the time of initial encoding. After such an individual has appropriated well-intended information in his or her own idiosyncratic way, that information may only serve to bolster prejudiced beliefs (Snyder, 1981). This, of course, is just the opposite of what is intended. The results of this study suggest that efforts to impart information should be accompanied by efforts to help individuals examine their own experience of race, become aware of themselves as racial beings, and grow in their racial identity. More information will be of use only when it can be processed with less distortion. Furthermore, the data from this sample suggest that, for Whites at least, such a self-exploration is of critical importance not only for cross-racial interactions but also for less biased information processing in contacts with those of one's own racial group.

Perhaps a more direct implication of this analogue study is that one's racial identity status may affect the ability to accurately process the race-related content in written materials. Clearly, written materials by themselves provide insufficient exposure to complex socioracial interactions. However, the finding that racial attitudes do influence the encoding and retrieval of information contained in written stimuli suggests that such material may play some role in training counselors about race and culture. For instance, narratives might be constructed to provide trainees with valuable feedback about how and how much they tend to distort race-related information.

Limitations

This study represents a first attempt to empirically explore *terra incognita*—the possible link between White racial identity statuses and the processing of race-related information. As with all correlational studies, these results will not bear the weight of too much theorizing until they are confirmed by other studies seeking to delineate the same territory.

The first set of limitations stems from the fact that this was an analogue study in two important respects: the experimental task and the population tested. Regarding the experimental task, to what degree can these results, based on memory for written materials, be applied to counseling or to training, which are much more complex processing tasks? Counseling occurs in a face-to-face (vs. written) interaction between counselor and client. Are results obtained from memory for written stimuli applicable to interpersonal encounters? Moreover, human exchanges invoke multiple schemas (i.e., gender, SES, etc.). How might the interaction of multiple schemas affect the processing of racial information? For instance, recognition response items for which there was near unanimity in this study suggest that the stimulus paragraph may have also evoked a schema for "driven young urban professional"; this may have muted racial stereotypes or fused with them to create the subtypes of young urban professional (yuppie), when Michael was said to be White, or Black urban professional (buppie), when he was said to be Black. Alternatively, the cognitive literature suggests that more intense processing demands (as in real life) serve to increase a person's reliance on preexisting stereotypes (Stangor & McMillan, 1992) making them more likely to be invoked to simplify the overwhelming number of stimuli produced in the course of a counseling interaction. It could then be the case that tasks associated with training and counseling might make one more dependent on preexisting schemas than the task used in this study.

Regarding the second analogue limitation (i.e., population tested), can the responses of college students be considered comparable with those of counselor trainees or professional counselors? In summary, how well do findings based on the particular tasks and the specific population used in this study generalize to actual counseling and training?

Another potential, albeit necessary, limitation of this study is its use of a stimulus and outcome measure constructed specifically to explore a new area of inquiry. The question may be asked: Did the stimulus and recognition measure effectively evoke differential Black versus White expectancies? This concern is raised by the relatively small magnitude of differences noted in the memory variables and the response rates for individual items, as well as by the pattern of race switching in recall seen in participants whose data were not included in the study. Perhaps the samples used for rating and the pilot studies may not have been representative, or the stereotype cutoff score used for inclusion of an item (less than or equal to 4 for Black stereotypes and greater than or equal to 6 for White stereotypes, where 5 was neutral) may have not been sufficiently extreme. Insofar as the stimulus used in this study may have not effectively engaged differential expectancies, the findings reported may be skewed, additional significant results may have been suppressed or both.

The goal of this initial exploratory study was modest: to determine whether racial identity statuses were associated with variations in memory for race-related information. Additional research is needed, not only to confirm that the relationships reported here are not merely an artifact of this sample but also to elucidate further the relationships be-

tween racial identity and information processing. First, following from the limitations just discussed, development of a more effective stimulus is needed, perhaps one using more stringent criteria for item inclusion, or even a different medium (e.g., video). Greater attention should be given to the potential impact of subtypes (e.g., schemas for "yuppies" or "buppies") as noted above. Future research may seek either to prevent the inadvertent creation of subtypes or to explicitly incorporate them in the design. The interval between administration of the stimulus and recognition measure might also be shortened and the processing task strengthened (e.g., asking participants to form an impression of Michael). Second, results reported above examine only one kind of memory (i.e., recognition). Given the findings on the manipulation check, the relationship of racial identity and other measures of memory, specifically free recall, bear exploration. Third, whereas the present investigation studied only White racial identity, future studies will need to explore the potential relationship between people-of-color racial identity statuses and memory for race-related information.

Conclusion

This study offers some initial empirical support for Helms's (1990, 1995, 1996) contention that racial identity statuses influence information processing. White racial identity statuses were found to be related to the accuracy of memory for race-related information for a Black target as well as response bias for White stereotypes attributed to a White target. These findings offer support for the hypothesis that racial identity statuses may influence memory by moderating an individual's race-based expectancies, which in turn affect the processes of both encoding and retrieving race-related information. As people vary in their predominant racial identity status, so too does their reliance on socially acquired racial stereotypes in processing racial information. Thus, these findings caution that exposure to accurate information about race cannot guarantee that accurate knowledge will result. At the same time, there is cause for hope that skewed cognitions about race are not irremediable. Rather, if racial identity statuses are linked to differential processing of racial information, growth in racial identity may in turn facilitate an individual's ability to process socioracial data more reliably. Yet, because of the important limitations outlined above, the results from this exploratory study must be interpreted with care.

Human beings cannot escape the subjective dimension inherent in all cognitive processing. However, they can aspire to be as aware as possible of the biases they bring to what they perceive and how they remember. It is hoped that this initial investigation will serve as a tentative first step into a new area of research—an area that may have the potential to reduce some of the distortions that currently plague both Blacks and Whites and the society in which we live.

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