

The Nature of Stereotypes: A Comparison and Integration of Three Theories

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In the present research we examined predictions derived from the following three theoretical approaches to stereotyping: complexity-extremity theory, assumed characteristics theory, and expectancy-violation theory. In order to assess these predictions, we manipulated the race, personal appearance, and dialect style of target job applicants. White judges rated these applicants on a set of characteristics relevant to hiring decisions. Results were consistent with all three theories. Specifically, the range of judges' evaluations of black applicants was larger than the range of their evaluations of white applicants; the effects of personal appearance and dialect style were larger than the effects of race; and black applicants, on average, received more favorable ratings than white applicants. We present a model integrating all three perspectives, and we demonstrate its usefulness for explaining our results and for understanding past research on stereotypes.

Three theoretical perspectives within social psychology address how stereotypes influence perceptions of individual members of in-groups and out-groups: complexity-extremity theory, assumed characteristics theory, and expectancy-violation theory. Each theory proposes that different processes underlie the impact of background information on evaluations of in-group and out-group members. When considered separately, these theories generate conflicting predictions. Rarely, however, have these theoretical approaches been directly compared with one another. Therefore, in this article we will examine these theories experimentally by investigating how the race, personal appearance, and dialect style of job applicants affects white observers' evaluations.

First, we review the basic ideas of each theory to illustrate how they could lead to opposing predictions. For each theory, we generate one set of predictions by assuming that the theory describes the only influences on evaluations. These predictions are useful because they clearly reflect the ideas of each theory. However, researchers from each of these theoretical approaches generally acknowledge the possibility of other influences. Consequently, we also develop a second set of predictions for each theory. These predictions are more realistic and more complex because they reflect how each theory might function in the con-

text of multiple influences on evaluations of individual in-group and out-group members.

Complexity-Extremity

Complexity-extremity theory (Linville, 1982; Linville & Jones, 1980) addresses how people evaluate in-group members differently from out-group members. According to the theory, people have more contact with other in-group members than with out-group members. For example, whites usually have more contact with other whites than with blacks. As a result, "This rich background of experience with the in-group generates a larger number of dimensions along which individual members may be characterized" (Linville & Jones, 1980, p. 691).

The theory also suggests that when there are many independent dimensions on which an individual (or any stimulus) is judged, evaluations should be less extreme. When the perceiver uses many independent dimensions, the target probably should be evaluated favorably on some and unfavorably on others. Thus, an overall evaluation that accounts for many dimensions is unlikely to be extremely favorable or extremely unfavorable. When perceivers use few dimensions, however, extreme evaluations are more likely because the target can be more readily perceived as all good or all bad. Consistent with this perspective, research has found that whites' evaluations of individual blacks involve fewer dimensions and are more extreme than their evaluations of individual whites (Linville & Jones, 1980). Similarly, college students use more dimensions when evaluating young people than when evaluating older people, and they also evaluate older people more extremely (Linville, 1982).

Two characteristics often viewed unfavorably are lower socioeconomic status (SES) and nonstandard dialects (Bayton, McAllister, & Hamer, 1956; Feldman, 1972; McKirnan, Smith, & Hamayan, 1983; Smedley & Bayton, 1978; Williams, 1970). In the absence of other influences, complexity-extremity theory suggests that whites' evaluations of blacks should be polar-

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ized in comparison to their evaluations of whites. Thus, this *polarized-appraisal* hypothesis predicts that upper-class, Standard-English-speaking blacks should be evaluated extremely favorably—even more favorably than similar whites. In contrast, lower-class, Nonstandard-English-speaking blacks should be evaluated extremely unfavorably—even less favorably than similar whites.

However, complexity–extremity theory leads to a more general hypothesis that allows for influences leading people to favor one group over another (see Linville, 1982). If group main effects occur, the theory leads to the following *range* hypothesis: the difference between whites' evaluations of upper-class, Standard-English-speaking blacks and lower-class, Nonstandard-English-speaking blacks should be larger than the difference between their evaluations of upper-class, Standard-English-speaking whites and lower-class, Nonstandard-English-speaking whites. Complexity–extremity theory predicts an interaction between race and background characteristics rather than race main effects.

Assumed Characteristics

Other research indicates that stereotypes inform us of important background characteristics of group members. Stereotypes inform us about an individual's SES (Bayton, McAllister, & Hamer, 1956; Feldman, 1972; Smedley & Bayton, 1978), beliefs and values (e.g., Rokeach & Mezei, 1966), and personality traits (e.g., Grant & Holmes, 1981; Locksley, Borgida, Brekke, & Hepburn, 1980). According to this perspective, people generally *assume* in-groups have more favorable characteristics (whether SES, values, or traits) than do out-groups.

If no other processes influence evaluations, direct information about relevant background characteristics should eliminate the effects of group membership. Consistent with this *elimination of bias* hypothesis, some research on stereotypes shows that when members of different groups behave similarly, express similar beliefs and values, have similar socioeconomic backgrounds or speak similar dialect styles in-group members show no evidence of bias against out-group members (Locksley et al., 1980; Locksley, Hepburn, & Ortiz, 1982b; McKirnan et al., 1983; Rokeach & Mezei, 1966; Smedley & Bayton, 1978).

Assumed-characteristics theory, however, does not exclude other influences. Theorists often acknowledge that even though background information may not eliminate the effects of group membership, it should have more impact (Insko, Nacoste, & Moe, 1983; Locksley, Hepburn, & Ortiz, 1982a). Although this *importance of background characteristics* hypothesis is an extrapolated derivation of this theory, it has received much empirical support (Feldman, 1972; Locksley et al., 1982a; Moe, Nacoste, & Insko, 1981; Rasinski, Crocker, & Hastie, 1985; see Cook, 1984; Insko et al., 1983, for reviews).

This theory proposes that stereotype-based assumptions about the negative characteristics of blacks lead to unfavorable evaluations by whites. However, if it is clear that black and white job applicants have similar relevant characteristics (e.g., similar SES and dialect style), whites' biases should be eliminated (assuming no other influences on evaluations). A secondary prediction of the theory is that in the presence of other influences,

background characteristics should have larger effects than does race.

Expectancy Violation

The third perspective, expectancy-violation theory, also suggests that stereotypes provide information about an individual's personal characteristics. This perspective suggests, however, that when an individual's characteristics violate stereotype-based expectations, evaluations should become more extreme in the direction of the expectancy violation. Individuals who possess more favorable characteristics than expected should be evaluated even more positively than others with similar characteristics whom we expected to rate positively all along. Likewise, individuals who possess more unfavorable characteristics than expected should be evaluated even more negatively than others with similar characteristics whom we expected to rate negatively all along.

The attributional mechanisms of augmentation and discounting (Kelley, 1971) may underlie an expectancy-violation effect. The augmentation principle states that the perceived role of a particular factor in producing an outcome is enhanced when factors leading to an opposite outcome are also present. For example, racial discrimination may be seen as creating more obstacles to the occupational success of blacks than whites. Consequently, successful blacks may be perceived as possessing extremely favorable personal qualities (e.g., intelligence, motivation, etc.)—even more favorable than those of equally successful whites. Thus, the presence of obstacles *augments* the perceived role of positive personal qualities in the success of blacks.

The discounting principle states that the perceived role of a particular factor in producing an outcome will be diminished by the presence of other causal influences. Therefore, these same obstacles might lead observers to view lower SES blacks as having *fewer* unfavorable personal qualities than lower SES whites. In general, perception of obstacles leads to the *discounting* of negative personal qualities as a cause of low SES among blacks.

Expectancy-violation theory predicts that whites will evaluate blacks more favorably than similar whites if either (or both) of two conditions are true: (a) blacks have an unexpected positive characteristic or (b) whites have an unexpected negative characteristic. Therefore, it is necessary to identify which characteristics violate whites' expectations for blacks and whites.

Several studies suggest that although whites expect blacks to come from low-SES backgrounds, they may not hold clear expectations regarding whites' SES. Specifically, whites rate high-SES blacks much more favorably than high-SES whites, but they rate low-SES whites about the same (or more favorably) than low-SES blacks (Dienstbier, 1970; Feldman, 1972; Smedley & Bayton, 1978). These results suggest that upper-class blacks positively violate whites' expectations but that lower-class whites do not necessarily negatively violate their expectations.

Research also suggests that although whites expect other whites to speak Standard English, they may not hold clear expectations regarding blacks' speech style. Thus, black and white speakers of Standard English are evaluated similarly (McKir-

Table 1
Evaluations of Black and White Targets With Similar Characteristics as Predicted by Each Theory Separately

Theory	Target			
	Lower class, Nonstandard English speech	Upper class, Nonstandard English speech	Lower class, Standard English speech	Upper class, Standard English speech
Complexity-extremity	Black < white	No predicted difference	No predicted difference	Black > white
Assumed-characteristics	No predicted difference	No predicted difference	No predicted difference	No predicted difference
Expectancy-violation	Black > white	Black > white	No predicted difference	Black > white

Note. Predictions were derived by assuming that each theory provides exhaustive and mutually exclusive descriptions of stereotyping.

nan et al., 1983; Williams, Whitehead, & Miller, 1971), perhaps because there is no expectancy violation for either group. However, when whites observe black and white speakers of Standard and Nonstandard English, they rate the Nonstandard-English-speaking whites least favorably (McKirnan et al., 1983). Therefore, nonstandard-speaking whites may negatively violate white observers' expectations.

In summary, this perspective on the nature of expectancy violation suggests that upper-class blacks positively violate whites' expectations, and Nonstandard-English-speaking whites negatively violate whites' expectations. In the absence of other influences, therefore, upper-class blacks should be evaluated more favorably than upper-class whites, and Nonstandard-English-speaking whites should be evaluated less favorably than Nonstandard-English-speaking blacks.

Expectancy-violation theory, however, does not preclude the possibility of other influences on evaluations. If other processes do occur, the evaluations of similar blacks and whites may not completely correspond to the predictions described. Nonetheless, expectancy violation usually leads whites to evaluate blacks more favorably than similar whites (in the presence of background information). Consequently, even if other processes do occur, the theory predicts a main effect whereby blacks receive more favorable evaluations than do whites.

Overview of Hypotheses

When considered separately, these theories generate the conflicting predictions presented in Table 1. Although the processes specified by each theory are not mutually exclusive, we believe it is important to present these predictions because (a) it makes salient the conflicting predictions derived by considering each theory in isolation, (b) we plan to assess how well each theory, alone, accounts for our results, and (c) most studies focus on the development of a single theoretical perspective, often ignoring (or obscuring) other perspectives.

Method

Overview

In this experiment, judges viewed slides and listened to tape recordings of black and white job applicants who spoke Nonstandard and Standard English and who were dressed to appear upper class and lower

class. Judges then rated each applicant on characteristics relevant to evaluations of occupational competence and hiring decisions. This included a set of general occupational evaluations, ratings of typical occupational traits, and ratings of how much the judge would like to work with the applicant in various occupational relationships.

Judges

Two groups of white judges from a large midwestern university participated in this study. One sample consisted of 118 introductory psychology students who participated in the experiment as part of a course requirement. Eleven students indicated some suspicion during the experiment, and their data were removed from the analyses. The remaining judges were 107 introductory psychology students, including 56 female and 51 male students.

The other sample consisted of 95 undergraduates enrolled in advanced classes in the business school of the same university. Their participation was arranged by the experimenters and teachers of these classes as part of their classroom activities. We felt this business school sample was especially appropriate for investigating influences on judgments of occupational competence and desirability because many of these students are expected to enter management positions and may be responsible for hiring decisions. In the business school sample, two students indicated some suspicion regarding the experiment, and their data were excluded from all analyses. The remaining 93 participants from the business school included 61 females and 31 male students and 1 student who did not disclose his or her gender.

Stimulus Targets

The race (black or white), personal appearance (lower class or upper class), and dialect style (Nonstandard English or Standard English) of four male confederates were varied to create all eight possible stimulus combinations. Two target applicants were created from each confederate with the use of the matched-guise method (Lambert, Hodgson, Gardner, & Fillenbaum, 1960). Each confederate dressed in both upper-class and lower-class styles. Hence, differences in ratings of upper-class and lower-class targets could only result from personal appearance differences and not from differences in the type of person appearing upper class or lower class.

A similar procedure was followed for dialect style. Each speaker conversed in both Nonstandard and Standard English. Thus, differences in the ratings of speakers of Nonstandard English and Standard English could only be due to differences in dialect style and not to actual differences in the type of person who spoke a particular dialect.

Materials

Slides of targets. Job applicants were presented through a series of slides. The upper-class-appearing targets were dressed in a conservative and formal style. This style consisted of a traditional dark solid suit with a light-colored shirt, dark-polished shoes, and conservative tie. The lower-class-appearing targets wore less expensive clothing that included an older sports jacket, a light-colored shirt, a wide tie, older dress pants, and scuffed dress shoes. Each target was photographed walking into the office, sitting in the waiting room, filling out a job application, and waiting for the interviewer to enter the room.

Pretesting of slides. Nine confederates were photographed and pretested to ensure that their personal appearance conveyed the appropriate social class. Each confederate appeared both upper class and lower class, thus yielding a total of 18 slides (9 confederates each appearing both upper class and lower class) that were then pretested. Four confederates, two whites and two blacks, were selected according to the following criteria: (a) When appearing upper class, all selected confederates had to be rated similarly to one another; (b) when appearing lower class, all selected confederates had to be rated similarly to one another; and (c) each confederate's upper-class appearance had to be rated significantly higher on social class than his own lower-class appearance.

Scripts. Sixteen scripts containing responses to four job interview questions were developed. The questions included the following: "How did you hear about the job?" "Why do you want this job?" "Do you have a car?" and "What are your job strengths?" There were four answers to each of these questions. Each answer was written in both Standard and Nonstandard English. For example, the following are Standard English and Nonstandard English versions of the same response to the question "Why do you want the job?"

Standard English: This is the kind of job I have been trained to do. At my old job I wasn't able to use all of my skills. This job would allow me to use more of my skills, while learning some new ones at the same time.

Nonstandard English: Dis is da kinda job I been trainin ta do. At ma ole job I wasn able ta use all a ma skills. Dis job'd fllow me ta use maw of ma skills while learnin some new ones at da same time.

The Nonstandard-English scripts were *not* written in Black English vernacular. Furthermore, confederates did not use southern accents when speaking Nonstandard English. Both blacks and whites speak nonstandard forms of English other than Black English (Labov, 1972; Tucker & Lambert, 1969; Williams, 1970). Thus, our use of a form of Nonstandard English that is not uniquely black was intended to enhance the credibility of our white Nonstandard English speakers without detracting from the credibility of our black Nonstandard English speakers.

A linguist specializing in dialects confirmed that adequate Standard English and Nonstandard English scripts were developed. These scripts were pretested to eliminate any influence of script content on evaluations. Thirty judges received written copies of the Standard English scripts to rate for competence and intelligence. Pretesting of the Nonstandard English scripts was not necessary because the content of the Nonstandard English scripts was the same as the Standard English scripts. Furthermore, because people are not accustomed to reading Nonstandard English, such scripts would have been difficult to rate.

There were no significant differences in ratings of any of the scripts. Because each of four confederate speakers used two scripts (i.e., answered two job-interview questions) the eight most similarly rated scripts were used.

Speakers

Tape recordings of the responses to chosen job interview questions were prepared by speakers who were capable of speaking both Standard

and Nonstandard English. Two white men and two black men approximately 30 years of age were recorded while answering two job interview questions. Each speaker answered two of the interview questions twice—once using Nonstandard English and once using Standard English. Although different speakers sometimes answered the same questions, no two speakers provided the same response to any question.

Questionnaires

Questionnaires assessed judges' evaluations of the job candidates. One set of questions addressed general evaluations, including judgments of (a) the likelihood of each applicant's being hired, (b) intelligence, (c) overall occupational competence, and (d) the status level of the job for which the applicant was most suited (job suitability). Another set of questions referred to personal characteristics or traits often relevant to occupational success, including assessments of how hardworking, ambitious, organized, and interpersonally warm the applicants were. The third set of questions assessed judges' preferences for working with each applicant in different types of occupational relationships. Specifically, judges indicated how much they would like to have each applicant as an employer, coworker, and employee.

All questions except job suitability were answered on a semantic differential type scale ranging from 1 to 10, with higher scores indicating more favorable ratings. For the job suitability question, judges selected from one of five specific occupational classifications of jobs, which ranged from *unskilled labor* to *professional*.

Experimental Design

Two sets of four stimulus targets each were created from the slides and recordings of confederates. One stimulus set consisted of a lower-class, Nonstandard-English-speaking black; an upper-class, Standard-English-speaking black; a lower-class, Standard-English-speaking white; and an upper-class, Nonstandard-English-speaking white. The second stimulus set consisted of a lower-class, Standard-English-speaking black; an upper-class, Nonstandard-English-speaking black; a lower-class, Nonstandard-English-speaking white; and an upper-class, Standard-English-speaking white.

Slides and recordings were combined as follows: (a) the same confederate did not appear twice in the same set; (b) the same speaker was not heard twice in the same set; (c) if a confederate appeared upper class in one set, he appeared lower class in the other set (and vice versa); (d) if a speaker used Standard English in one set, he used Nonstandard English in the other set (and vice versa); (e) all four confederates appeared in each stimulus set; (f) all four speakers were used in each stimulus set; and (g) none of the speakers within a set used the same script in response to interview questions. We presented the first stimulus set to one group of judges and the second stimulus set to a second group of judges. Within each stimulus set, presentation of targets was counterbalanced to eliminate order effects.

Our methodology has several advantages over previous research on racial stereotyping. After reviewing the literature on discrimination-in-employment interviews, Arvey (1979) called for several methodological improvements: (a) presentation of fuller stimulus persons through "in vivo interview simulations"; (b) presentation of multiple stimulus persons so that effects are not due to the unique characteristics of any single stimulus person; and (c) use of within-subjects designs because such designs have more statistical power and allow judges to compare and contrast applicants. Our design met all of these needs by presenting job applicants in both visual and auditory form, by presenting two of each type of applicant (i.e., two whites, two blacks, two upper-class-appearing applicants, two lower-class-appearing applicants, two Standard English

speakers, and two Nonstandard English speakers), and by using a primarily within-subjects design.¹

Procedure

The slides and tapes were presented to judges who were told that a hidden camera and microphone had been used to obtain pictures and tapes of actual job interviews. The judges from introductory psychology classes observed slides of job applicants in our laboratory in groups of 3 to 12. There were four classes of business school students, each of which observed one of the two stimulus sets. These judges performed their evaluations in their classrooms in groups of about 25. The four slides of each candidate (walking in the office, sitting in a waiting room, filling out an application, and sitting by the interviewer's desk) were shown, and a recording of the applicant answering two interview questions was played along with the fourth slide. The judges viewed one target and answered 11 questions about him. This procedure was then repeated for the other three targets. At the end of the experiment, judges were debriefed, and the purposes of the study were revealed.

Results

Initial Analyses and Overview

We performed an initial set of 2 (race) × 2 (appearance) × 2 (dialect) × 2 (sex) × 2 (sample) repeated measures analyses of variance (ANOVAs) for each of the 11 dependent variables. These analyses revealed few differences between the introductory psychology and business school samples and few sex differences.² Therefore, we collapsed the remaining analyses across sex and sample. Cell means, presented in Table 2, indicated that the pattern of effects was similar on all 11 variables. Consequently, the clearest way to examine the predictions of the three theories was to analyze the data summing over all 11 variables. Reliabilities (Cronbach's alpha) computed for this 11-question scale for ratings of each of the eight applicants ranged from .87 to .95. The cell means for this summary index are presented in Table 3. The remaining analyses focus on this summary index of judges' evaluations.

Complexity-Extremity

Polarized-appraisal hypothesis. If complexity-extremity theory described the only processes underlying whites' evaluations of blacks and whites, then lower-class-appearing, Nonstandard-English-speaking black applicants should be evaluated less favorably than similar whites, but upper-class-appearing, Standard-English-speaking black applicants should be evaluated more favorably than similar whites. Results were partially consistent with the polarized-appraisal hypothesis. As predicted, the upper-class-appearing, Standard-English-speaking black applicant was rated much more favorably than the similar white applicant ($t = 5.65, p < .0001$).³ However, the lower-class-appearing, Nonstandard-English-speaking black applicant was not rated significantly lower than the similar white applicant ($t < 1, ns$).

Range hypothesis. The polarized-appraisal hypothesis may have received only partial support because of the occurrence of race main effects (see results for expectancy-violation theory). The range hypothesis, which was independent of group main effects, received clear support: The difference between evalua-

tions of the least and most favorably rated black applicants ($84.02 - 41.68 = 42.34$) was significantly larger than the difference between evaluations of the least and most favorably rated white applicants ($72.45 - 42.64 = 29.81$) ($t = 4.32, p < .01$).⁴ Thus, although complexity-extremity processes may not have been the only influences on judges' evaluations, our results indicate that they were an important influence.

Assumed-Characteristics Theory

Elimination of bias hypothesis. A main prediction of assumed-characteristics theory is that whites' bias against blacks will be eliminated through direct access to relevant background information. Although there is a wealth of evidence that whites are often biased against blacks, we did not assess evaluations of blacks and whites about whom no background information was provided. Therefore, we cannot clearly demonstrate that whites' bias against blacks is eliminated through access to background information.

We can assess, however, a secondary prediction. If assumed-characteristics theory described the only processes underlying judges' evaluations, we would not expect a race main effect. However, race main effects did occur (see results for expectancy-violation theory). Assumed-characteristics theory alone cannot account for this main effect.

Importance of background characteristics hypothesis. Because other processes influenced evaluations, assumed-characteristics theory did not necessarily predict that similar black and white applicants would be evaluated similarly. Regardless of other processes, however, assumed-characteristics theory predicts that background information should have a larger impact than race.

To assess this hypothesis, we compared the amount of variance explained by each main effect and interaction. This analy-

¹ With this design, all three main effects and all three two-way interactions are within-subjects effects, and only the three-way interaction is a between-subjects effect.

² There was a tendency for the introductory psychology students to evaluate targets more favorably than the business school students did. This yielded a significant main effect for type of student on 7 of the 11 variables. There were no main effects for sex. Furthermore, there were very few interactions involving either sex or type of student (12 significant interactions out of a possible 242 interactions). These interactions, however, showed no interpretable pattern. Thus, the introductory psychology and business school samples were combined.

³ The degrees of freedom were 197 for all contrasts reported in this article. Effects associated with all four error terms in the univariate repeated measures ANOVA influenced the value of these contrasts. Consequently, mean squared error within cell was used as the error term for the contrasts reported in this paragraph (see Kirk, 1968, pp. 264-265). Because multiple nonorthogonal a priori contrasts were performed, we used the Dunn (or Bonferroni) method for computing contrasts (Kirk, 1982, pp. 106-110).

⁴ Significance levels were determined through interaction contrasts that used the appropriate pooled mean squared error. The value of these contrasts depended on four effects (main effects for appearance and dialect, and Race X Appearance and Race X Dialect interactions). Consequently, we pooled the two error terms associated with these four effects in order to obtain the appropriate error term for these contrasts (see Kirk, 1968, pp. 264-268 and 303-306).

Table 2
Cell Means for All Dependent Variables

Variable	Target			
	Lower class, Nonstandard English speech	Upper class, Nonstandard English speech	Lower class, Standard English speech	Upper class, Standard English speech
Likelihood of being hired				
Black	2.86	5.85	5.27	7.93
White	2.59	3.57	5.42	6.52
Intelligence				
Black	3.25	5.83	5.64	7.23
White	3.22	4.42	6.13	6.80
Competence				
Black	5.00	6.45	6.29	7.82
White	4.42	5.56	6.03	7.27
Job suitability				
Black	1.42	2.98	2.78	3.38
White	1.64	2.24	2.74	3.45
Hardworking				
Black	5.66	6.63	6.47	7.79
White	5.52	5.87	6.04	7.13
Ambitious				
Black	4.41	6.95	6.17	8.16
White	4.48	5.74	6.41	7.73
Organized				
Black	4.11	6.92	5.15	8.03
White	3.67	5.31	5.32	7.32
Warm/cold				
Black	4.77	6.97	5.59	7.35
White	6.02	5.74	5.36	5.30
Employer				
Black	2.10	5.82	4.63	7.11
White	2.48	3.02	3.71	5.27
CoWorker				
Black	3.33	6.58	5.18	7.65
White	3.88	3.89	4.38	5.62
Employee				
Black	3.38	6.53	5.17	8.01
White	3.08	4.02	4.61	6.60

Note. Higher means indicate more favorable ratings.

sis indicated that although race accounted for 4% of the variance in evaluations, personal appearance and dialect accounted for 21% and 19%, respectively (the significant Race \times Appearance interaction accounted for another 3%, and the significant Race \times Appearance \times Dialect interaction accounted for another .5%—no other effects were significant). Thus, although

we were unable to test the central hypothesis, our results were consistent with extrapolated predictions of assumed-characteristics theory.

Expectancy-Violation Theory

Expectancy-violation theory predicts that whites' expectations are positively violated by upper-class-appearing blacks and negatively violated by Nonstandard-English-speaking whites. No expectancy violation (and therefore no difference) was predicted for lower-class-appearing, Standard-English-speaking black and white applicants. In the absence of other influences, however, we predicted that all three of the other black applicants would be evaluated more favorably than similar white applicants, because the blacks' characteristics evoke a positive expectancy violation or the whites' characteristics evoke a negative expectancy violation or both.

Pair-wise comparisons of blacks and whites with similar characteristics only partially supported these hypotheses. As predicted, the upper-class-appearing, Standard-English-speaking

Table 3
Observed Cell Means Obtained by Summing
Over All Dependent Variables

Variable	Nonstandard English speech		Standard English speech	
	Lower class	Upper class	Lower class	Upper class
Black	41.68 _a	70.50 _b	61.12 _d	84.02 _e
White	42.64 _a	51.49 _c	58.73 _d	72.46 _{b,f}

Note. Grand mean = 60.38. Means with different subscripts are significantly different at $p < .05$.

black applicant was rated significantly more favorably than was the similar white applicant ($t = 5.65, p < .0001$); the upper-class-appearing, Nonstandard-English-speaking black applicant was rated more favorably than was the similar white applicant ($t = 9.28, p < .0001$); and the lower-class-appearing, Standard-English-speaking black and white applicants were not rated significantly differently ($t = 1.16, ns$). The prediction that lower-class-appearing, Nonstandard-English-speaking white applicants would be evaluated less favorably than similar black applicants, however, was not supported ($t < 1, ns$).

Predictions for expectancy-violation theory may have received equivocal support because they were developed on the (erroneous) assumption that there were no other influences on evaluations. Even in the presence of other influences, however, expectancy-violation processes usually lead whites to evaluate black applicants more favorably than similar white applicants. Consistent with this second prediction, a significant main effect for race, $F(1, 197) = 96.05, p < .0001$, occurred because blacks received (on average) more favorable ratings than did whites.

Verifying Stereotype-Based Expectancies Through Their Violation: The Middle Cells

Another reason for the failure to confirm predictions for expectancy-violation theory might be that we inaccurately identified the whites' expectancies for black and white job applicants. Further analyses were performed to assess the validity of this perspective. Specifically, we believed that whites' expectations would be positively violated when blacks appeared upper class but not when they spoke Standard English. Consistent with this prediction, the upper-class-appearing, Nonstandard-English-speaking black applicant was evaluated more favorably than was the lower-class-appearing, Standard-English-speaking black applicant ($t = 4.62, p < .001$). Furthermore, this difference occurred because the rating of the upper-class-appearing, Nonstandard-English-speaking black applicant was much higher than the grand mean, and the lower-class-appearing, Standard-English-speaking black applicant received an evaluation similar to the grand mean (see Table 3).

Similarly, we predicted that whites' expectations would be negatively violated when whites spoke Nonstandard English but not when they appeared lower class. Confirming this prediction, the upper-class-appearing, Nonstandard-English-speaking white applicant was evaluated less favorably than was the lower-class-appearing, Standard-English-speaking white applicant ($t = 3.56, p < .05$). Furthermore, this occurred because the ratings of the upper-class-appearing, Nonstandard-English-speaking white applicant were much lower than the grand mean, and the ratings of the lower-class-appearing, Standard-English-speaking black applicants were quite similar to the grand mean (see Table 3).

Integration of the Theories

None of these theories successfully predicted the relative evaluations of all four pairs of black and white applicants with similar characteristics. Only the set of predictions for each theory that allowed for multiple influences received unequivocal support. Therefore, we have empirical evidence that multiple

processes influenced evaluations. Consequently, this permits us to integrate these theories to more completely account for judges' evaluations of the applicants.

The effects specified by each theory that need to be integrated include the following: (a) the impact of background characteristics; (b) the extremity effects produced by expectancy-violation; and (c) the extremity effects produced by complexity-extremity processes. The simplest way to integrate these theories is to assume that the combined influence of processes specified by each theory is an additive function of their separate influences, all of which are of equal size. These are admittedly strong assumptions and should be viewed primarily as heuristic tools for simplifying our understanding of how these processes co-occur.

With this integration, we clearly specified all relations among all eight cells in our study. In Table 4, each cell received a 1 for every positive effect on evaluations expected and a -1 for every negative effect expected. Positive effects were predicted for favorable background characteristics (upper class appearance or Standard English speech) and negative effects were predicted for unfavorable background characteristics (lower class appearance or Nonstandard English speech). A positive expectancy violation was predicted for upper-class-appearing blacks; a negative expectancy violation was predicted for Nonstandard-English-speaking whites; a positive complexity-extremity effect was predicted for upper class, Standard-English-speaking blacks; and a negative complexity-extremity effect was predicted for lower-class-appearing, Nonstandard-English-speaking blacks. By summing the numbers for each cell, we identified every cell's hypothesized relation to every other cell and to the grand mean.

For example, lower-class-appearing, Nonstandard-English-speaking whites and blacks both received three -1 s, which indicated that the theories combined to lead to three negative effects and no positive effects for each applicant. Both targets received two -1 s for having two negative characteristics—lower-class appearance and nonstandard speech. Whites received a third -1 because their nonstandard speech style should evoke a negative expectancy violation leading to an even more unfavorable evaluation. Blacks received a third -1 because whites' cognitive simplicity regarding blacks should lead to an extremely unfavorable evaluation. Thus, combining the predictions of the theories indicated that lower-class-appearing, Nonstandard-English-speaking black and white job applicants should be evaluated approximately equally unfavorably.

This integrative model not only accounted for all comparisons of blacks and whites with similar characteristics but also for nearly every possible pair-wise comparison of cells and for the relation of every cell to the grand mean (cf. Tables 3 and 4). Additional analyses more clearly assessed, in two ways, how well this model accounted for our data. First, we determined how much of the variation attributable to our experimental manipulations (main effects and interactions) could be accounted for by the model. Second, we identified whether the residual variation was still significantly associated with any of our experimental manipulations (or their interactions).

We generated expected cell means from the model by regressing the observed cell means on the Table 4 values. This produced the equation $Y = 60.377 + 6.176(X)$, where Y is the predicted cell mean and X is the Table 4 value. These predicted cell

Table 4
Expected Relations Among Cell Means Derived From Integrating Complexity-Extremity, Assumed-Characteristics, and Expectancy-Violation Theories

Variable	Nonstandard English speech		Standard English speech	
	Lower class	Upper class	Lower class	Upper class
Black	-1 -1 -1 = -3	-1 +1 +1 = 1	+1 -1 = 0	+1 +1 +1 +1 = 4
White	-1 -1 -1 = -3	-1 +1 -1 = -1	+1 -1 = 0	+1 +1 = 2

Note. A +1 was received for (a) appearing upper class, (b) speaking Standard English (c) a predicted positive expectancy violation, and (d) a predicted positive complexity-extremity effect. A -1 was received for (a) appearing lower class, (b) speaking non-Standard English, (c) a predicted negative expectancy violation, and (d) a predicted negative complexity-extremity effect.

means were then subtracted from each judge's ratings of the corresponding applicant in order to obtain residual scores. These residuals represented variations in judges' evaluations that our model does not explain. We then performed the same $2 \times 2 \times 2$ repeated measures ANOVA on these residuals that we performed on the original ratings to determine how much systematic variation remained.

In the ANOVA on the scale, the sum of squares for all main effects and interactions combined was 154,432.16 (about 48% of the total variance in ratings). The ANOVA on the residual scores yielded a sum of squares for all main effects and interactions of 2789.3, which indicated that only about 2% of the variance in ratings attributable to our experimental manipulations was not accounted for by our model. The residual sums of squares for the previously highly significant dialect and appearance main effects and the Race \times Appearance interaction were reduced to nonsignificance (all F s < 1.4). The sum of squares for the race main effects was reduced about 95% (from 12,722.98 to 661.87), but this remaining 5% was still statistically significant, $F(1, 197) = 5.00, p < .03$. Lastly, the significant three-way interaction effect, which was orthogonal to the expected values presented in Table 4, was not reduced at all, $F(1, 197) = 4.93, p < .03$. This effect, however, only accounted for .5% of the total variance in judges' ratings. Thus, we concluded that our integrative model accounted for most of the systematic effects of race, appearance, and dialect.

Discussion

For each theory, our results confirmed predictions that allowed for multiple influences on evaluations. Results consistent with complexity-extremity theory showed that the range of whites' evaluations of black applicants was larger than the range of their evaluations of white applicants. Results consistent with secondary predictions of assumed-characteristics theory showed that background characteristics had more impact than race did. The main effect showing that black applicants received more favorable ratings than did white applicants was consistent with expectancy-violation theory. Lastly, a theoretical perspective integrating all three theories in a simple additive way provided a thorough explanation for our findings.

Certain limitations qualify the insights provided by this research. Most important, we did not directly assess certain assumptions underlying each theory. One untested assumption, important to both assumed-characteristics theory and expect-

tancy-violation theory, is that our white judges held more favorable stereotypes of whites than of blacks. This assumption seems tenable, however, on the basis of indirect evidence gleaned from our data and on past research.

Our data suggested that upper-class-appearing blacks and Nonstandard-English-speaking whites violated judges' expectations. If this is true, it means that judges expected blacks to appear lower class and whites to speak Standard English. Consistent with past research (McKirnan et al., 1983; Smedley & Bayton, 1978; Wexley & Nemeroff, 1974; Williams, 1970), we found that lower-class-appearing targets received very unfavorable ratings, and Standard-English-speaking targets received highly favorable ratings. Thus, if blacks were expected to appear lower class, and lower-class people are viewed unfavorably, it seems our judges did indeed hold relatively unfavorable expectations for blacks. Similarly, if whites were expected to speak Standard English, and speakers of Standard English are viewed favorably, it seems that our judges held favorable expectations for whites.

Furthermore, much research shows that many whites have historically held, and continue to hold, unfavorable views of blacks (Allport, 1958; Chesler, 1976; D. Katz & Braly, 1933; Kinder & Sears, 1981; Weigel & Howes, 1985). More generally, in-group members are usually biased in favor of themselves over out-group members, even when the criteria for designating group membership is minimal or arbitrary (Brewer, 1979; Tajfel, Billig, Bundy, & Flament, 1971). Thus, it seems likely that our judges did indeed hold more favorable stereotypes of whites than of blacks. Nonetheless, our failure to directly test this assumption means that assumed-characteristics theory may deserve stronger support than we can provide. Our results indicated that, in the presence of important background information, judges showed no bias against black applicants. Had we demonstrated that judges held less favorable stereotypes of blacks than of whites, the prediction that direct access to background information eliminates bias against blacks would have received clear support.

Our failure to assess whites' a priori stereotypes leads to an alternative explanation for our findings supporting expectancy-violation theory. Specifically, white judges may have tried to create the socially desirable impression that they were not prejudiced by rating the black applicants more favorably than the white applicants. Even when there is no expectancy violation (i.e., for lower-class-appearing, Standard-English-speaking ap-

plicants), the social desirability explanation still predicts that whites will evaluate blacks more favorably. The data, however, did not confirm this prediction: There was no significant difference in the ratings received by lower-class-appearing, Standard-English-speaking black and white applicants. Consequently, it seems that expectancy-violation theory provides a more viable explanation for our findings than does the social-desirability explanation.

We also did not test the assumption of complexity-extremity theory that whites use fewer dimensions to evaluate blacks than to evaluate other whites. Indeed, researchers finding similar extremity effects have proposed the existence of simultaneous biases for and against blacks (Dienstbier, 1970) and of several different affective and motivationally based mechanisms (Gergen & Jones, 1963; I. Katz & Glass, 1979; Stephan & Stephan, 1985). None of these proposed alternative processes, however, have been documented as thoroughly as complexity-extremity theory (see Linville, 1982; Linville & Jones, 1980). Because it is clear that cognitive simplicity does lead to evaluative extremity, complexity-extremity theory provides the most parsimonious explanation for in-group members' extreme evaluations of out-group members. Nonetheless, complexity-extremity and affective-motivational processes are not mutually exclusive. Therefore, an interesting and important area for future research involves assessing how much such affective and motivational biases influence evaluations of out-group members beyond that already accounted for by cognitive processes.

The Integrative Model and Past Research

How well does this integrative model explain past research findings? According to this model, past research on whites' racial stereotypes should show the following: (a) range effects; (b) much larger effects of background characteristics than race; (c) whites evaluate highly favorable blacks more positively than highly favorable whites (owing to expectancy violation and complexity-extremity processes); (d) whites evaluate unfavorable blacks either similarly or somewhat more negatively than unfavorable whites (depending on the nature of the background-characteristic manipulation);⁵ (e) overall tendencies to rate blacks more favorably than similar whites.

Consistent with this integrative perspective, past research has often found the range of whites' evaluations of blacks to be larger than the range of their evaluations of whites (Dienstbier, 1970; Feldman, 1972; Linville & Jones, 1980; Smedley & Bayton, 1978; Wexley & Nemeroff, 1974). These studies also find that whites rate favorable blacks more positively than favorable whites and that they rate unfavorable blacks and whites similarly. Such findings support our proposal that complexity-extremity and expectancy-violation processes influence evaluations. Furthermore, these studies and many others (Cook, 1984; McKirnan et al., 1983; Moe et al., 1981; Rokeach & Mezei, 1966; Triandis, Loh, & Levin, 1966) provide evidence for the assumed-characteristics processes by demonstrating that information about SES, beliefs and values, speech style, and occupational or educational qualifications often has a far larger impact on evaluations than does race.

In addition, researchers from the complexity-extremity and assumed-characteristics perspectives have often found results

consistent with expectancy-violation theory. When background characteristics are orthogonally manipulated, whites usually evaluate blacks more favorably than whites, although this tendency is not always statistically significant (Feldman, 1972; Linville & Jones, 1980; Mazer, 1971; McKirnan et al., 1983; Smedley & Bayton, 1978). Thus, it seems that our integrative model not only provides a better account of our own data than does any of the three theories considered individually, it also provides a comprehensive understanding of much of the past research on racial stereotypes.

Generalizability of the Model to Other Stereotypes

The applicability of our integrative model to stereotyping in general is an important area for future research. Nonetheless, the available literature on stereotypes provides evidence that supports the occurrence of all three processes addressed by the current study.

In support of the assumed-characteristics perspective, research on sex role, age, social, and ethnic stereotypes generally finds that information about an individual's personality characteristics and behavior has more impact on others' evaluations than does the target's group membership (Linville, 1982; Linville & Jones, 1980; Locksley et al., 1980, 1982a, 1982b; Rasin-ski et al., 1985; Sherman, Gold, & Sherman, 1978). Furthermore, research has also demonstrated complexity-extremity effects with regard to sex role stereotyping (Linville & Jones, 1980) and age-based stereotyping (Linville, 1982). And the expectancy-violation perspective is supported by research showing that although older people are often characterized by relatively negative stereotypes (Mctavish, 1971), an active older man receives more favorable evaluations than an equally active younger man, which is also consistent with complexity-extremity theory (Sherman et al., 1978).

Conclusion

Perhaps our most important conclusion is that stereotypes may influence evaluations of individual members of in-groups and out-groups in important but highly complex ways. One can no longer simply assume that stereotypes lead only to favorably biased perceptions of in-group members. In the current study alone, we have shown that stereotypes may sometimes lead to more favorable evaluations of out-group individuals and that they may have multiple, and sometimes even conflicting, influences on evaluations (see Table 4).

Although the current study integrates theories mainly by combining them, additional conceptual synthesis may be gained through research that more thoroughly identifies the limiting conditions of various theories. The current study provides some of this information by suggesting that whites hold

⁵ We do not claim to have identified all conditions under which expectancy violations are likely to occur. If the unfavorable background characteristic manipulated in past studies did *not* negatively violate expectations for whites, then complexity-extremity processes would lead to less favorable ratings of unfavorable blacks. If the background characteristic manipulation *did* negatively violate expectations for whites, then unfavorable blacks and whites would be evaluated similarly.

relatively strong expectations regarding whites' speech style and blacks' social class, and they hold few expectations regarding whites' social class and blacks' speech style. Our study also suggests that complexity-extremity processes are mainly applicable to targets who have clearly positive or negative characteristics, and not to targets who fall between these extremes.

Other research has investigated limiting conditions for complexity-extremity theory and assumed-characteristics theory. When attribute dimensions are correlated, fewer dimensions do not necessarily lead to evaluative extremity (Judd & Lusk, 1984). Furthermore, in comparison to race, beliefs and values have more impact on evaluations and behavioral intentions mainly for less ethnocentric people and for less intimate interactions (Goldstein & Davis, 1972; McKirnan et al., 1983).

Lastly, these and many other perspectives on stereotypes have been developed primarily on the basis of research involving white subject populations. Nonetheless, the processes underlying these theories are often believed to operate in similar fashion among other populations. Research directly assessing the generalizability of our current beliefs regarding stereotyping processes to nonwhite subject populations could be especially informative.

Therefore, it is important for future integrative perspectives not only to incorporate mechanisms described by several theories but also to delineate the conditions under which stereotyping processes occur. Simultaneously combining theories and identifying limiting conditions may be a difficult task, especially for empirical research. However, there are so many approaches to intergroup interaction and perception that the attempt to synthesize multiple perspectives could greatly enhance the richness and accuracy of our theories of stereotypes.

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