The Accuracy and Power of Sex, Social Class, and Ethnic Stereotypes: A Naturalistic Study in Person Perception

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This research examined the accuracy and power of sex, social class, and ethnic stereotypes in person perception. Participants included 49 to 56 teachers and nearly 2,000 students in seventh-grade public school math classes. Results indicated that teacher perceptions regarding achievement and motivation differences between girls and boys, lower- and upper-class students, and African American and White students were mostly accurate. Results also showed that although teachers generally relied on students' personal characteristics to form their perceptions, they occasionally relied on stereotypes. We discuss these results in terms of the classic view that stereotypes are inaccurate, rigid, exaggerated, and exert powerful effects on person perception.

Stereotypes have long been thought to create social problems because they are inherently inaccurate and exert powerful influences on person perception. This assumption, however, has recently been the subject of debate. Although the classic emphasis on stereotypes as inaccurate and powerful (Allport, 1954; Katz & Braly, 1933; LaPierre, 1936) has modern adherents (Brewer, 1988, 1996; Devine, 1989; Fiske & Neuberg, 1990; E. E. Jones, 1986, 1990; J. Jones, 1997), many recent perspectives argue that stereotypes can be accurate or inaccurate and that they often have only weak and limited effects on person perception (Judd & Park, 1993; Jussim, 1991; Jussim, McCauley, & Lee, 1995; Kunda & Thagard, 1996; Locksley, Borgida, Brekke, & Hepburn, 1980; Locksley, Hepburn, & Ortiz, 1982; McCauley, 1995; McCauley, Stitt, & Segal, 1980; Oakes, Haslam, & Turner, 1994; van den Berghe, 1997). In this article, we present research that empirically examines these positions. First, we assess how accurately people perceive real differences and similarities between targets from different sex, social class, and ethnic groups. Then, we examine the extent to which people relied on targets' social group membership to form their perceptions. We address these issues in the context of the classroom, focusing on teachers' perceptions of students.

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Are Stereotypes Inaccurate?

The idea that stereotypes are inaccurate has a long history in social psychology. Lippmann (1922) proposed that stereotypes were based on faulty reasoning processes and often had no basis in fact. Katz and Braly (1933) argued that stereotypes did not correspond to the actual characteristics of groups. LaPierre (1936) examined the accuracy of the Armenian stereotype and concluded that it existed in the face of contradictory evidence. Allport (1954) and Campbell (1967) characterized stereotypes as exaggerations of real group differences.

Most theories of stereotyping also emphasize the inherent inaccuracy of stereotypes. Inaccurate stereotypes are posited to justify perceivers' prejudice (Adorno, Frenkel-Brunswik, Levinson, & Sanford, 1950; Allport, 1954; Dollard, Doob, Miller, Mowrer, & Sears, 1939; Katz & Braly, 1933; LaPierre, 1936), rationalize conflict between groups (Sherif & Sherif, 1953), perpetuate social problems through self-fulfilling prophecies (Snyder, Tanke, & Berscheid, 1977; Word, Zanna, & Cooper, 1974), and provide perceivers with negative characterizations with which to denigrate out-groups so that in-groups appear more favorable by comparison (Tajfel & Turner, 1979).

However, there is little empirical evidence regarding the inaccuracy of many stereotypes (Judd & Park, 1993; Jussim et al., 1995; McCauley, 1995). Moreover, the empirical evidence that does exist paints a decidedly mixed picture showing some inaccuracy, some overestimation of real differences, some underestimation of real differences, and some accuracy (Clifford, 1975; Dusek & Joseph, 1983; Eagly, Ashmore, Makhijani, & Longo, 1991; Feingold, 1992; Judd & Park, 1993; Martin, 1987; Maruyama & Miller, 1981; McCauley, 1995; McCauley & Stitt, 1978; McCauley & Thangavelu, 1991; Ryan, 1995; Swim, 1994). Because there is no clear empirical evidence demonstrating that stereotypes are generally inaccurate and because defining stereotypes as inherently inaccurate raises conceptual and methodological difficulties (Jussim et al., 1995), nearly all broad reviews in the last 30 years have left inaccuracy out of the definition of stereotypes (Ashmore & Del Boca, 1981; Brigham, 1971; Judd & Park, 1993; Jussim, 1990; Jussim et al., 1995; Mackie, 1973; Oakes et al., 1994; Ottati & Lee, 1995; Schneider, 1996; van den Berghe, 1997).

Do Stereotypes Have Powerful Effects on Person Perception?

One of the driving forces fueling research on stereotyping is the concern that stereotypes create social problems by powerfully biasing person perception. This concern has generated a myriad of studies that emphasize the biasing nature of stereotypes. Much of this research has used a paradigm that manipulates targets' group membership while holding constant targets' personal characteristics. Such research frequently shows that perceivers judge targets from different social groups differently when targets' personal characteristics are ambiguous and identical (e.g., Bodenhausen, Sheppard, & Kramer, 1994; Bodenhausen & Wyer, 1985; Darley & Gross, 1983; Duncan, 1976; Kunda & Sherman-Williams, 1993; Sagar & Schofield, 1980). This paradigm is highly useful for identifying whether stereotypes influence person perception. However, because this paradigm holds constant targets' personal characteristics, the power of stereotypes versus targets' personal characteristics cannot be compared.

Studies that do allow targets' personal characteristics to vary typically show that they influence person perception much more than do stereotypes (Jussim, Coleman, & Lerch, 1987; Jussim, Eccles, & Madon, 1996; Kreuger & Rothbart, 1988; Linville, 1982; Linville & Jones, 1980; Locksley et al., 1980, 1982). Perhaps the most well-known demonstration of this effect is the work by Locksley and her colleagues. Locksley et al. (1980) showed that sex stereotypes influenced the perceived assertiveness of female and male targets when information about their personal characteristics was absent, but they had no effect when the targets were described as having behaved assertively in the past.

Recent research on stereotype processes also attests to the power of targets' personal characteristics to influence person perception far more than stereotypes. Despite approaching this issue from different theoretical perspectives, several reviews have converged on the ideas that (a) perceivers use stereotypes to judge targets when they know little else about them (e.g., no information available, cannot pay attention to available information, are distracted, etc.) and (b) abandon their stereotypes when they have more information about targets' personal characteristics (Jussim, 1991; Kunda & Thagard, 1996; Oakes et al., 1994). For example, a recent meta-analysis (Kunda & Thagard, 1996) showed that targets' personal characteristics typically *dwarfed* (Kunda & Thagard's, 1996, term) the effects of stereotypes. Stereotypes also had weak effects when targets' personal characteristics were ambiguous. This research suggests that although people rely on stereotypes when information about targets' personal characteristics is ambiguous or scarce, their effects may not be as powerful as once claimed.

Naturalistic Research on Stereotyping and Person Perception

Virtually all of the research studies examining stereotyping in person perception have been experimental laboratory studies. Experiments are highly valuable because they identify the processes relating stereotypes to

person perception. However, they also have important limitations.

Experiments operationalize away group differences. The typical experiment on the role of stereotypes in person perception operationalizes away real group differences by manipulating targets' group membership while holding constant their personal characteristics or by manipulating targets' group membership orthogonal to their personal characteristics. The strength of this methodology is that it isolates stereotype effects by rendering social category orthogonal to personal characteristics.

However, this approach also has a major limitation. It artificially renders targets from different social groups identical on average. Yet, social groups often do differ on dimensions related to stereotypes. Consider these examples: Physically attractive people are more socially skilled than less attractive people (Feingold, 1992; Goldman & Lewis, 1977), and African American high school students score about 100 points lower on the math and verbal sections of the scholastic aptitude test (SAT) than do White students (Educational Testing Service [ETS], 1996). Experiments that operationalize away group differences may not provide information about how stereotypes influence person perception when groups really differ.

Experiments may not generalize to naturalistic conditions. Limited generalizability of experimental findings may also arise because the processes that perceivers engage in under naturalistic conditions may differ substantially from the processes that they engage in during experiments. In many naturalistic situations, perceivers have more intimate and extended contact with targets, are more actively engaged in complex thought processes, and may be influenced by a greater number of simultaneous motivational goals than they are in even the most complex experiment.

Naturalistic Studies on Stereotyping in Person Perception

Despite the limitations associated with experimental studies of stereotyping, researchers have only rarely examined issues of accuracy and bias under naturalistic conditions in which targets differ by group membership (Clarke & Campbell, 1955; Jussim & Eccles, 1995; Jussim et al., 1996). Clark and Campbell (1955) examined accuracy and bias in seventh- and eighth-grade African American and White students' perceptions of each other. All students predicted the score that each other student in the class would receive on an upcoming test. They found that White students slightly underestimated the performance of the African American students. African American students, in contrast, accurately perceived the performance of African American students. Moreover, the correlation between predicted scores and actual scores was moderately high (i.e., .56 for White students and .47 for African American students). Thus, this study provided evidence of both bias and accuracy in person perception.

We have also examined issues of accuracy and bias in person perception under naturalistic conditions (Jussim & Eccles, 1995; Jussim et al., 1996). We examined the extent to which sixth-grade math teachers accurately perceived differences between girls and boys, lower- and upper-class students, and African American and White students. The differences that teachers perceived between students from these different demographic groups generally corresponded to actual differences that existed between them. We also found that teachers sometimes relied on demographic group membership when judging individual students. The extent to which they did so, however, was usually quite small. In contrast, teachers relied heavily on students' personal characteristics when judging individual students.

These findings so strongly opposed the classic emphasis on the inaccuracy and power of stereotypes that we were left with a nagging question: Would our results generalize to naturally occurring situations that are more conducive to bias? We address this question in the current research by reexamining the issues of accuracy and bias with a new group of teachers who, in contrast to the teachers in our previous study, formed their perceptions under conditions that are more likely to produce bias.

The teachers in our current research were junior high school teachers, whereas the teachers in our previous study were elementary school teachers. This difference is much more important than it might appear at first glance. In elementary school, class sizes are small and students have a primary teacher with whom they spend most of the day. Consequently, elementary school teachers have ample opportunity to become highly familiar with each student in their class. This has important implications for stereotyping. According to recent perspectives (Kunda & Thagard, 1996; Oakes et al., 1994), perceivers rarely use stereotypes to judge individuals when they have abundant information about them. Perhaps the elementary school teachers in our earlier research rarely resorted to stereotypes because they had so much personal information about each of the students in their classes.

In contrast to elementary school teachers, junior high school teachers have much less information about each of the students in their classes. Class sizes are typically much larger in junior high school than in elementary school and students change classes several times each day. As a result, junior high school teachers are less familiar with their students than are elementary school teachers and have less time to interact with them indi-

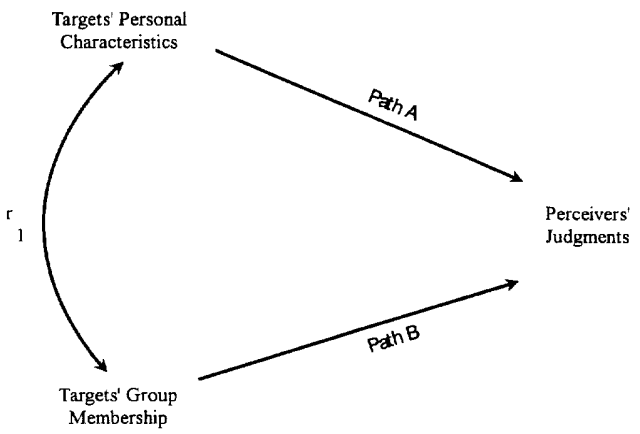

Figure 1 Model relating targets' personal characteristics and stereotypes to perceivers' judgments.

vidually. Experimental studies on stereotyping in person perception frequently mimic the situational conditions under which junior high school teachers form their perceptions. Experimental subjects are frequently cognitively overloaded and provided with little information about targets. The results of this body of research have been compelling, showing consistent evidence of bias among cognitively overloaded subjects (Bodenhausen, 1990; Bodenhausen & Lichtenstein, 1987; Hilton, Klein, & von Hippel, 1991; Pendry & Macrae, 1994; Pratto & Bargh, 1991) and stronger stereotype effects when perceivers have little information about targets (see Kunda & Thagard, 1996, for a review). The implication of this research for our naturalistic data is clear: Junior high school teachers should be more susceptible to bias when judging students.

Issues of Stereotype Content and Process

Our research addressed two broad issues related to stereotypes: content and process. In the first part of our study, we examined issues of stereotype content: what perceivers believe about targets from different social groups and the extent to which those beliefs were accurate. In the second part of our study, we examined issues of stereotype process: how perceivers developed their beliefs about targets from different social groups. We addressed these issues in terms of a conceptual model that describes relations between targets' group membership, targets' personal characteristics, and perceivers' judgments.

Conceptual model. Figure 1 presents the conceptual model underlying this research. In the model, r_1 is the correlation between targets' personal characteristics and their group membership (i.e., the real group difference). Path A represents the influence of targets' personal characteristics on perceivers' judgments (i.e., individuating information). Path B represents the influence of targets' group membership (i.e., perceivers' stereotype) on perceivers' judgments. For simplicity, we assume that both paths are standardized. r_2, which is not explicitly displayed, represents the correlation between targets' group membership and perceiver judgments (i.e., the perceived difference).

Issues of content: How accurate are perceivers' judgments? In the model, inaccuracy is assessed with a simple comparison of r_2 (the perceived group difference) to r_1 (the real group difference). When $r_2 > r_1$, the perceived group difference exceeds the real group difference, indicating that perceivers exaggerated real group differences. When $r_2 < r_1$, the perceived group difference is less than the real group difference, indicating that perceivers underestimated real group differences. It is also possible that r_1 and r_2 will have different signs (one positive, the other negative), indicating that perceivers judged the groups as differing in a manner opposite to the way that they differ in reality. Finally, when $r_2 = r_1$, the perceived group difference corresponds to the real group difference, indicating that perceivers' judgments are accurate.

Issues of process: How do perceivers arrive at their judgments? The model in Figure 1 is also useful for identifying the processes by which perceivers arrive at their judgments of group differences. According to the model, there are two sources that contribute to perceived differences between targets from different groups: (a) targets' personal characteristics and (b) stereotypes. Both sources can lead to accurate judgments regarding the differences and similarities between groups.

Perceivers will tend to accurately judge the differences and similarities between targets from different social groups when they base their judgments solely on the personal characteristics of those targets. In terms of the model, when Path B = 0 (complete obliviousness to targets' group membership) and Path A = 1.0 (complete reliance on targets' personal characteristics), $r_2 = r_1$ (i.e., the perceived difference equals the real difference). In this case, r_2 = Path B + r_1(Path A) = r_1 (because Path B = 0 and Path A = 1.0). Thus, perceivers should accurately judge differences between individuals from different groups when the groups really differ and accurately perceive no differences between individuals from different groups when the groups do not differ.

The model also describes a second, less well-known route to accuracy. Perceivers can also arrive at accurate judgments regarding the differences and similarities between targets from different groups if they rely on an accurate stereotype. An accurate stereotype is a belief that groups differ, on average, to the extent that individu-

als in the groups actually do differ on average. The model shows that relying on targets' group membership to judge individuals can lead to accurate perceptions of the differences between the groups. In the model, when Path B = r_1, perceivers assume that individuals from differing groups differ to the same extent, on average, that those groups really do differ. When Path B = r_1 and Path A = 0 (complete obliviousness to targets' personal characteristics), $r_2 = r_1$, such that the perceived difference equals the real difference.

Inaccuracy of Group Differences Versus Inaccuracy of Individual Differences

Of course, a reliance on an accurate stereotype does not mean that perceivers will necessarily judge all individuals within a group accurately. Indeed, perceivers can make numerous errors judging individuals and yet still arrive at judgments that, when aggregated across individuals in each group, correspond to the actual difference between the groups. When this happens, perceivers' judgments are influenced by the stereotype but do not lead to bias for or against either group. For example, suppose that men are 5 inches taller than women, on average. Perceivers could make numerous errors judging the heights of individual men and women and yet still accurately perceive a 5-inch difference between the groups on average (e.g., if they judged men as 5 ft, 10 in. and women as 5 ft, 5 in., on average). Although understanding how stereotypes influence the accuracy of perceptions about individuals is extremely important, we do not address it here. Instead, we focus on the accuracy and inaccuracy of perceived differences between targets from different groups.

METHOD

Participants

This research was based on data collected for the Michigan Study of Adolescent Life Transitions (Eccles, 1988), a large-scale study that focused on adolescents' transition from elementary school to junior high school in 12 school districts in southeastern Michigan. The sex analyses were based on 1,969 students and 56 math teachers. The social class analyses were based on 523 students and 49 math teachers. The ethnicity analyses were based on 1,873 students and 56 math teachers. Each student had the same math teacher over the course of the entire school year.

Questionnaires

Teacher perception variables were assessed in early October of the seventh grade. Student variables were assessed in late September or early October, shortly before the assessment of teacher perceptions (see Eccles, Wigfield, Flanagan, Miller, Reuman, & Yee, 1989; Eccles [Parsons] et al., 1983; Eccles-Parsons, Kaczala, & Meece, 1982, for more details).

Teacher perceptions. Questionnaires assessed teachers' beliefs about a variety of issues related to teaching (e.g., student achievement, teaching efficacy, obedience issues). Included in the current study were three questions about teacher perceptions of their students' math performance, natural math talent, and effort exerted in math.

Student motivation. There were three measures of student motivation for math: (a) self-concept of math ability, (b) time spent on math homework, and (c) effort exerted in math. Self-concept of math ability was assessed by having students rate their math ability in general and in comparison to all other students in their math class (also see Eccles et al., 1989; Eccles [Parsons] et al., 1983; Eccles-Parsons et al., 1982). The time that students spent on math homework was assessed with an item that asked students how much time they spent on their math homework. This question was asked on a 4-point response scale that ranged from 1 (*less than 15 minutes a day*) to 4 (*an hour or more a day*). Effort exerted in math was assessed with an item that asked students to rate how hard they worked in math, with endpoints of *a little* and *a lot.*

Measures of Previous Achievement

Students' previous achievement consisted of final marks in sixth-grade math and scores on the Michigan Educational Assessment Program (MEAP), a standardized test taken early in the seventh grade by all Michigan students.

RESULTS

Overview: Accuracy in Person Perception and the Power of Stereotypes

The first set of analyses examined how accurately teachers perceived differences and similarities between students from different demographic groups by addressing two questions: (a) Do teachers perceive achievement and motivation differences between girls and boys, between lower- and higher-class students, and between African American and White students? and (b) How accurate are the differences and similarities that teachers perceive?

We examined these questions with a series of correlations. First, we correlated students' demographic group membership with teacher perceptions of performance, talent, and effort. These correlations reflect the achievement and motivation differences that teachers perceived

TABLE 1: Descriptive Statistics

Variable	*Minimum-Maximum Value*	*Mean*	*Standard Deviation*	*Skewness*
Teacher perceptions				
Performance	1-5	3.40	1.14	–.37
Talent	1-7	4.76	1.35	–.34
Effort	1-7	4.89	1.48	–.54
Students' previous achievement				
MEAP scores	3-28	22.82	4.70	–1.35
Final marks in sixth-grade math	1-16	11.52	2.55	–.63
Students' perceptions of effort				
Effort exerted in math	1-7	5.19	1.50	–.74
Time spent on math homework	1-4	2.40	.86	–.64
Self-concept of math ability	2-14	10.12	2.40	–.68

NOTE: All variables are in raw score units. MEAP = Michigan Educational Testing Program, a standardized test taken at the beginning of the seventh grade by all Michigan students. Final marks in sixth-grade math ranged from an A+ (coded as 16) to an F– (coded as 1). For the teacher and student perceptions, higher values reflect more favorable perceptions.

between students from the different demographic groups. Second, we correlated students' demographic group membership with their achievement and motivation. These correlations reflect the actual achievement and motivation differences between students from the different demographic groups.

Third, we compared the correlations reflecting the differences that teachers perceived to the correlations reflecting the actual differences between students. This comparison assesses the accuracy in teacher perceptions. Teacher perceptions were accurate when the correlations reflecting the perceived differences corresponded closely to the correlations reflecting actual differences between students. Teacher perceptions were inaccurate when the correlations reflecting the perceived differences deviated substantially in either sign or magnitude from the correlations reflecting actual differences between students.

Criteria for Assessing Accuracy

Final marks represent the quality of student performance over a school year, including performance on tests, homework, and in-class assignments. Therefore, we used students' final marks in sixth-grade math as the criterion for assessing the accuracy of teacher perceptions of performance. Standardized test scores assess students' enduring competencies, knowledge, and skills and are quite successful at doing so (e.g., Anastasi, 1982). Therefore, we used students' scores on the MEAP as the criterion for assessing the accuracy of teacher perceptions of talent.

We used three criteria for assessing the accuracy of teacher perceptions of effort: (a) student self-reported effort, (b) the amount of time that students reported spending on math homework, and (c) student self-concept of math ability. These measures were reliable and valid (for more detail about the measures, see Eccles, 1988; Eccles [Parsons], Adler, & Meece, 1984; Jussim, 1987, 1989; Jussim & Eccles, 1992; Parsons, 1980). We considered self-concept of math ability to be a motivational variable because of its role in leading to effort and persistence according to many motivational theories (e.g., Bandura, 1977; Eccles [Parsons] et al., 1983; Eccles & Wigfield, 1985; Weiner, 1979).

Nonindependence of Teacher Perceptions

Because teachers rated all of the students in their classrooms, teacher perceptions were not independent of one another. However, all correlations were rendered independent from students' classrooms with the following procedures. First, we created dummy variables that represented students' classrooms. Second, we used these dummy coded classroom variables to predict teacher perceptions of performance, talent and effort, students' final marks in sixth-grade math, MEAP scores, self-concept of math ability, time spent on math homework, effort exerted in math, sex, ethnicity, and social class. Third, we saved the residuals from these analyses and used them in all of the analyses that we performed.

Preliminary Analyses

Table 1 presents descriptive statistics for all of the variables used in this study. Table 2 presents correlations between the residualized teacher perception, achievement, and motivation variables.

Accuracy in Teacher Perceptions of Sex Differences and Similarities

Perceived differences. We first examined whether teachers perceived differences and similarities between girls' and boys' achievement and motivation by correlating students' sex with teacher perceptions of performance,

TABLE 2: Correlations

Variable	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*
1. Teacher perceptions of performance		.79*	.73*	.51*	.47*	.12*	–.17*	.49*
2. Teacher perceptions of talent			.57*	.46*	.47*	.06*	–.22*	.47*
3. Teacher perceptions of effort				.42*	.34*	.17*	.42*	.35*
4. Final marks in sixth-grade math					.44*	–.07*	–.15*	.43*
5. MEAP scores						.03	–.15*	.36*
6. Effort exerted in math							.26*	.16*
7. Time spent on math homework								–.09*
8. Self-concept of math ability								

NOTE: All correlations are independent of students' classrooms. These correlations were calculated by (a) obtaining residuals for each variable by regressing each variable onto dummy variables that represented students' classrooms and (b) correlating the residuals.
*$p \leq .05$.

TABLE 3: Correlations Between Teacher Perceptions, Students' Demographic Group Membership and Student Achievement and Motivation

	Correlations Between Students' Demographic Group Membership		
Variable	*Sex* (n = *1,969*)	*Social Class* (n = *523*)	*Ethnicity* (n = *1,873*)
Teacher perceptions			
Performance	–.10***	.15**	–.01
Talent	–.01	.16***	–.00
Effort	–.21***	.10	–.02
Students' achievement and motivation			
Final marks in sixth-grade math	–.10***	.12*	–.00
MEAP scores	–.04	.10	–.02
Effort exerted in math	–.00	.03	–.01
Time spent on math homework	–.03	.05	.04
Self-concept of math ability	.09***	.14**	.00

NOTE: Performance, talent, and effort refer to teacher perceptions of performance, talent, and effort. Girls were coded as 1 and boys were coded as 2. Social class refers to parental education and parental income. Parental education ranged from 1 (*never attended high school*) to 9 (*advanced degree, e.g., MD, PhD*). Parental income ranged from 1 (*less than $10,000 per year*) to 5 (*more than $40,000 per year*). Whites were coded as 1 and African Americans were coded as 2. All correlations are independent of students' classrooms. These correlations were calculated by (a) obtaining residuals for each variable by regressing each variable onto dummy variables that represented students' classrooms and (b) correlating the residuals. The correlations for social class are multiple correlations with parental education and income.
*$p \leq .05$. **$p \leq .01$. ***$p \leq .001$.

talent, and effort (girls coded as 1, boys coded as 2) (see Table 3). Results indicated that in comparison to boys, teachers perceived girls as performing more highly (r_{1967} = .10, $p < .01$) and as exerting more effort ($r_{1967} = -.21$, $p <$ .01). Teachers did not perceive differences between girls' and boys' talent ($r_{1967} = -.01$, *ns*).

Accuracy. Next, we examined the extent to which the differences and similarities that teachers perceived were accurate by comparing them to the actual differences between girls' and boys' achievement and motivation (see Table 3). Actual differences were calculated by correlating student sex with their achievement and motivation. Results indicated that the extent to which teachers perceived girls as performing more highly than boys ($r_{1967} = -.10$, $p < .01$) corresponded to the actual difference between girls' and boys' final marks in sixth-grade math ($r_{1967} = -.10$, $p < .01$). Thus, teachers accurately perceived sex differences in performance.

Teachers also accurately perceived the similarities between girls' and boys' talent. Teachers perceived girls and boys as having similar levels of talent ($r_{1967} = -.01$, *ns*), and there were virtually no differences between girls' and boys' MEAP scores ($r_{1967} = -.04$, $p = .09$). In terms of the model, teacher perceptions of performance and talent were accurate because the perceived differences corresponded to actual differences.

However, teachers inaccurately perceived differences between girls' and boys' effort. Teachers perceived girls as exerting more effort in math than boys ($r_{1967} = -.21$, $p <$ .01), even though girls had lower self-concepts of math ability ($r_{1967} = .09$, $p < .01$), and girls and boys reported spending equal time on math homework and as exerting the same effort in math (both $rs_{1967} \leq -.03$, *ns*). Thus, when student self-concept of math ability was the criteria for accuracy, teachers perceived a difference that was in the opposite direction to the actual difference. Using time spent on math homework and effort exerted in math as the criteria for accuracy, teachers perceived a difference that was not there.

Accuracy in Teacher Perceptions of Social Class Differences and Similarities

Perceived differences. We next examined whether teachers perceived social class differences and similarities in

student performance, talent, and effort. There were two continuous measures of social class with which to address this issue: parental education and parental income. Therefore, analyses were multiple correlations relating both measures of social class to teacher perceptions of performance, talent, and effort (see Table 3). Results indicated that teachers perceived higher-class students as performing more highly ($R_{521} = .15$, $p < .01$), as having more talent ($R_{521} = .16$, $p < .01$), and as exerting slightly more effort ($R_{521} = .10$, $p = .08$) than lower-class students.

Accuracy. Next, we examined the extent to which the differences that teachers perceived were accurate by comparing them to the actual differences between lower-higher-class students' achievement and motivation (see Table 3). Actual differences were calculated with multiple correlations that related the two measures of social class to student achievement and motivation. This comparison indicated that teacher perceptions were largely accurate. Teachers perceived lower- and higher-class students' performance to differ ($R_{521} = .15$, $p < .01$) to about the same extent that their final marks in sixth-grade math actually did differ ($R_{521} = .12$, $p = .02$).

Teachers also accurately perceived a small difference between higher- and lower-class students' effort ($R_{521} = .10$, $p = .08$). Although this perception slightly underestimated social class differences in student self-concepts of math ability ($R_{521} = .14$, $p < .01$), it slightly overestimated social class differences in student self-perceived effort and time spent on math homework (both $Rs_{521} \leq .05$, both $ps \geq .52$). Thus, teacher perceptions appear to have reflected a combination of the differences and similarities between lower- and higher-class students' self-concept of ability and reported effort and time spent on math homework.

In contrast, teacher perceptions of talent were slightly inaccurate. The social class differences that teachers perceived ($R_{521} = .16$, $p < .01$) slightly exceeded the real social class differences between students' MEAP scores ($R_{521} = .10$, $p = .08$). This inaccuracy reflects exaggeration (albeit a small tendency) because teachers perceived a slightly larger difference than existed.

Accuracy in Teacher Perceptions of Ethnic Differences and Similarities

Perceived differences. Next, we examined the extent to which teachers perceived differences and similarities between African American and White students' achievement and motivation by correlating teacher perceptions with student ethnicity (see Table 3). Results indicated that teachers did not perceive differences between African American and White students' performance, talent, and effort (all $rs_{1871} \leq .02$, *ns*).

Accuracy of teacher perceptions. We then examined the extent to which the similarities that teachers perceived were accurate by comparing them to the actual differences and similarities between African American and White students' achievement and motivation. Actual differences were calculated by correlating student ethnicity with their achievement and motivation. This comparison indicated that teacher perceptions were accurate (see Table 3). Teachers did not perceive differences between African American and White students' performance, talent, or effort (all $rs_{1871} \leq .02$, *ns*), and there were no differences between their achievement and motivation (all $rs_{1871} \leq .04$, *ns*).

Teachers' Accuracy

Overall, teacher perceptions of the differences and similarities between students from the different demographic groups were highly accurate. Although error and bias existed, they were the exception rather than the rule. Teachers' high level of accuracy was clearly demonstrated with one additional analysis based on the results reported in Table 3. We correlated the differences that teachers perceived with the actual differences that existed between students. This analysis, which involved correlating correlations, provided an overall index of the accuracy of teacher perceptions.

There were a total of nine correlations reflecting perceived differences and a total of 15 correlations reflecting actual differences. There are more correlations reflecting actual differences because we had three (rather than just one) criteria with which to compare teacher perceptions of student effort. To correlate perceived differences with actual differences, we needed to reduce the effort criteria to a single value. We did this by averaging the three effort criteria correlations for each demographic group. For example, we averaged the three correlations reflecting effort differences between girls' and boys' effort (i.e., [–.00 + –.03 + .09]/3) to yield one value reflecting this differences (i.e., average = .02). We repeated this process for the social class and ethnicity correlations. Thus, the raw data for this last analysis included the nine correlations reflecting the perceived differences and the corresponding nine correlations reflecting the actual differences. The pairs of correlations regarding performance, talent, and effort, respectively, were as follows: sex = (Pair 1: –.10, –.10), (Pair 2: –.01, –.04), and (Pair 3: –.21, .02); social class = (Pair 4: .15, .12), (Pair 5: .16, .10), and (Pair 6: .10, .07); ethnicity = (Pair 7: –.01, –.00), (Pair 8: –.00, –.02), and (Pair 9: –.02, .01).

The overall correlation was .71, indicating a high degree of accuracy in teacher perceptions. However, we suspected that even this might underestimate teachers'

general level of accuracy because there was only one instance in which teacher perceptions were highly inaccurate. Teacher perceptions of sex differences in effort did not correspond to sex differences on any of the effort criteria. Therefore, the inaccuracy of teacher perceptions of sex differences was something of an outlier. When it was excluded from the analysis, the correlation between perceived and actual differences shot up to .96.

Processes in Person Perception: Reliance on Stereotypes Versus Personal Characteristics

Our first set of analyses examined issues of stereotype content and showed that teachers tended to accurately perceive differences between students from different demographic groups. In the next set of analyses, we examined alternative processes that may have led to these accurate perceptions by addressing two questions: (a) To what extent did teachers base their perceptions on stereotypes versus students' personal characteristics? and (b) When teachers did rely on stereotypes, to what extent were their stereotypes accurate?

First, we examined the extent to which teachers relied on stereotypes versus students' personal characteristics. We addressed this issue with a series of regression analyses that used students' demographic group membership and their achievement and motivation to predict teacher perceptions. If teachers used stereotypes when forming their perceptions of students, then students' demographic group membership should predict teacher perceptions after controlling for their achievement and motivation.

Second, we examined the extent to which the differences that teachers perceived between students from different demographic groups was due to a reliance on stereotypes. We addressed this issue by comparing the relationship between students' demographic group membership and teacher perceptions before and after controlling for individual student achievement and motivation. Specifically, we compared the perceived differences reported in the stereotype content analyses (those that did not control for individual student achievement and motivation) to the relationship between students' demographic group membership and teacher perceptions in the stereotype process analyses (those that did control for individual student achievement and motivation). The more similar in magnitude these two relationships, the more that a reliance on stereotypes explained why teachers perceived differences between students from the different demographic groups. In terms of the model, when Path B (stereotype effect) = r_2 (perceived difference), then the perceived difference derives entirely from relying on the stereotype.

When results indicated that stereotypes at least partially explained why teachers perceived differences between students, we also addressed a third issue: The extent to which the stereotype was accurate. We addressed this issue by integrating the results of the stereotype content analyses with those from the stereotype process analyses. The stereotype content analyses assessed the accuracy and inaccuracy of teacher perceptions. The stereotype process analyses examined the extent to which teachers used stereotypes to judge individual students. If teachers held accurate perceptions and used stereotypes to judge individual students, then we know that teachers relied on an accurate stereotype. In terms of the model, it means that reliance on an accurate stereotype led to accurate perceptions of real group differences.

Multiple regression analyses examined these three issues. The analyses included student demographic group membership (i.e., sex, social class, or ethnicity); final marks in sixth-grade math; MEAP scores; self-concept of math ability; time spent on math homework; and effort exerted in math as predictors of teacher perceptions of performance, talent, and effort.

Sex Stereotypes Versus Students' Personal Characteristics

Table 4 summarizes the results from the sex analyses and shows that student sex significantly predicted teacher perceptions of performance ($\beta = -.09$, $p < .01$) and effort ($\beta = -.19$, $p < .01$) but did not significantly predict teacher perceptions of talent ($\beta = -.01$, $p = .55$). These results indicate that sex weakly predicted teacher perceptions of performance but more strongly predicted teacher perceptions of effort ($\beta = -.19$, $p < .01$). In fact, sex predicted teacher perceptions of effort more strongly than did every other single predictor except sixth-grade final marks. However, it was possible that correlations among the achievement and motivation predictors limited each individual predictor's relationship to teacher perceptions of effort. Therefore, we performed an additional regression analysis in which we entered sex as a predictor of teacher perceptions of effort, first, and then, in a second step, added all five measures of student achievement and motivation as a block. Even though this method is biased in favor of attributing predictive power to sex, results showed that student sex predicted teacher perceptions of effort ($R^2 = .04$) much less strongly than did student achievement and motivation combined ($\Delta R^2 = .24$).

How much of the differences that teachers perceived between boys and girls can be explained by a reliance on sex stereotypes? To answer this question, we compared the correlations between student sex and teacher perceptions of performance, talent, and effort from the stereotype content analyses to the regression coefficients relating student sex and teacher perceptions of performance, talent, and effort from the stereotype process

TABLE 4: Relationship Between Students' Demographic Group Membership, Achievement, and Motivation to Teacher Perceptions

	Teacher Perceptions								
	Performance			*Talent*			*Effort*		
	B	β	t	B	β	t	B	β	t
Sex analyses		R^2 = .41			R^2 = .38			R^2 = .29	
Predictor variable									
Sex	–.21	–.09	5.27****	–.03	–.01	.59	–.52	–.19	9.85****
Final marks in sixth-grade math	.14	.27	12.86****	.12	.20	9.60****	.16	.24	10.72****
MEAP scores	.06	.23	11.50****	.08	.26	12.92****	.05	.16	7.11****
Effort exerted in math	.05	.07	3.81****	.03	.03	1.85	.12	.13	6.50****
Time spent on math homework	–.12	–.09	4.96****	–.19	–.13	6.87****	–.05	–.03	1.49
Self-concept of math ability	.13	.28	13.88****	.14	.27	13.00****	.11	.18	8.30****
Social class analyses		R^2 = .40			R^2 = .41			R^2 = .22	
Predictor variable									
Parental education	.05	.07	1.96	.05	.06	1.86	.03	.05	1.12
Parental income	–.00	–.00	.10	.04	.03	.79	–.08	–.05	1.36
Final marks in sixth-grade math	.16	.30	7.38****	.13	.23	5.76****	.19	.30	6.51****
MEAP scores	.07	.24	6.08****	.10	.30	7.58****	.07	.19	4.26****
Effort exerted in math	.02	.02	.60	.01	.01	.21	.06	.07	1.82
Time spent on math homework	–.10	–.07	1.99*	–.20	–.14	3.87***	–.09	–.06	1.36
Self-concept of math ability	.11	.23	5.74****	.12	.22	5.72****	.03	.05	1.04
Ethnicity analyses		R^2 = .40			R^2 = .38			R^2 = .25	
Predictor variable									
Ethnicity	.03	.01	.65	.02	.01	.30	.01	.00	.17
Final marks in sixth-grade math	.15	.28	13.60****	.12	.21	10.06****	.18	.27	11.76****
MEAP scores	.06	.23	11.21****	.08	.26	12.67****	.05	.16	6.90****
Effort exerted in math	.05	.07	3.72***	.03	.03	1.68	.12	.13	6.42****
Time spent on math homework	–.12	–.09	4.76****	–.19	–.13	6.76****	–.04	–.02	1.05
Self-concept of math ability	.12	.26	12.99****	.14	.26	12.77****	.09	.15	6.77****

NOTE: Performance, talent, and effort refer to teacher perceptions of performance, talent, and effort. Girls were coded as 1 and boys were coded as 2. Social class refers to parental education and parental income. Whites were coded as 1 and African Americans as 2. Sex analyses were based on 1,969 students. Social class analyses were based on 523 students. Ethnicity analyses were based on 1,873 students. All regression analyses controlled for classroom by (a) obtaining residuals for each variable by regressing each variable onto dummy variables that represented students' classrooms and (b) using the residualized variables in the regression analyses.
*$p \leq .05$. ***$p \leq .001$. ****$p \leq .0001$.

analyses. This comparison indicated that the differences that teachers perceived between girls' and boys' performance ($r_{1967} = -.10$) is almost completely accounted for by the regression coefficient relating student sex to teacher perceptions of performance ($\beta = -.09$). Similarly, almost all of the differences that teachers perceived between girls' and boys' effort ($r_{1967} = -.21$) is accounted for by the regression coefficient relating student sex and teacher perceptions of effort ($\beta = -.19$). Thus, virtually all of the perceived differences are explained by a reliance on sex stereotypes.

We next examined whether the sex stereotypes that teachers used to judge individual girls and boys were accurate. We know from the stereotype content analyses that teachers accurately perceived differences between girls' and boys' performance. We know from the stereotype process analyses that teachers used sex stereotypes to arrive at their perceptions of student performance. Together, these findings indicate that teachers used the accurate stereotype that girls outperform boys to judge individual girls' and boys' performance.

In contrast, our results suggested that teachers used an inaccurate stereotype regarding sex differences in an effort to judge individual girls' and boys' effort. The stereotype content analyses showed that teachers inaccurately perceived differences between girls' and boys' effort. The stereotype process analyses showed that teachers relied on sex stereotypes to arrive at their perceptions of effort. Thus, teachers relied on the inaccurate stereotype that girls try harder in school than do boys to judge individual girls' and boys' effort.

Social Class Stereotypes Versus Students' Personal Characteristics

Table 4 summarizes the results for the social class analyses and shows that, in general, teachers did not rely on social class stereotypes to judge individual student performance, talent, or effort. Neither parental educa-

tion nor income significantly predicted teacher perceptions of performance, talent, or effort (all $\beta s \leq .07$, all $ps > .05$). Furthermore, adding parental education and income to a model that included student achievement and motivation never led to a significant increase in the R^2 for any of the teacher perception variables (all $\Delta R^2 \leq .01$, all $ps \geq .09$). Thus, social class stereotypes had virtually no effect on teacher perceptions.

In contrast, the student achievement and motivation variables almost always significantly predicted teacher perceptions of performance, talent, and effort (see Table 4). Because social class did not predict teacher perceptions, the differences and similarities that teachers perceived between lower- and higher-class students in the stereotype content analyses could not possibly have been due to a reliance on stereotypes. Instead, it appears that teachers entirely based their perceptions of differences between students from differing social class backgrounds on those students' achievement and motivation.

Ethnic Stereotypes Versus Students' Personal Characteristics

Table 4 summarizes the ethnicity analyses and shows that teachers did not rely on ethnic stereotypes to judge student performance, talent, or effort in math. Student ethnicity did not significantly predict teacher perceptions in any of the analyses performed (all $\beta s \leq .01$, all $ps \geq .52$). In contrast, final marks in sixth-grade math, MEAP scores, and self-concept of math ability always significantly predicted teacher perceptions of performance, talent, and effort (all $\beta s \geq .15$, all $ps < .01$). These findings suggest that the similarities that teachers perceived between African American and White students from the stereotype content analyses were not at all due to a reliance on ethnic stereotypes. Rather, teachers judged individual African American and White students on the basis of their achievement and motivation.

Sex, Social Class, and Ethnic Stereotypes Combined

We performed two additional sets of additional regression analyses to examine the extent to which stereotypes versus students' personal characteristics predicted teacher perceptions. The first set of analyses included all three demographic categories (i.e., sex, social class, and ethnicity) and student achievement and motivation as predictors of teacher perceptions of performance, talent, and effort. The results from these analyses mirrored those that we found previously. Sex significantly predicted teacher perceptions of performance ($\beta = -.11$, $p < .05$) and effort ($\beta = -.20$, $p < .05$), but not talent ($\beta = -.06$, $p \geq .05$). None of the other demographic variables significantly predicted any of the teacher perception variables (all $\beta s \leq .06$, all $ps \geq .11$).

The second set of analyses examined whether students' demographic group membership predicted teacher perceptions more strongly when students' membership in multiple groups was examined simultaneously. Thus, this set of analyses examined, for example, whether teachers relied more on ethnicity when judging boys than when judging girls. We examined the predicted effects of multiple group membership on teacher perceptions by creating product terms—that is, by multiplying students' group membership in one demographic category with their membership in another demographic group category (Pedhazur, 1982). Then, we added these product terms to a regression model that already included sex, social class, ethnicity, and student achievement and motivation as predictors of teacher perceptions of performance, talent, and effort. None of the product terms significantly predicted teacher perceptions (all $\beta s \leq .06$, all $ps \geq .29$).

DISCUSSION

How accurate are perceivers' judgments of individuals from different social groups? Do stereotypes have powerful effects on person perception? These were the questions we addressed in our research. Our results indicated that teachers' perceptions of students from different demographic groups were mostly accurate. The differences and similarities that teachers perceived between students from different sex, social class, and ethnic groups usually corresponded closely to actual differences and similarities between these students' achievement and motivation. Our results also indicated that stereotypes rarely had powerful effects on teacher perceptions. Students' personal characteristics always predicted teacher perceptions much more powerfully than did their demographic group membership. Thus, in contrast to claims that stereotypes are largely inaccurate and exert powerful effects on person perception, we found that stereotypes were largely accurate and had only weak and limited effects on person perception. Before discussing these findings, we consider several limitations to our research that qualify the insights that it has provided regarding the accuracy and power of stereotypes.

Limitations

Validity of criteria. How valid were our criteria for assessing accuracy? Certainly, our criteria were not perfect. But perfection is the wrong standard against which to measure the validity of our criteria (or, for that matter, any criteria for testing any proposition in any context) because there rarely, if ever, exist perfect criteria. By any reasonable standard, our criteria were very strong.

Grades reflect and summarize yearlong performance, and standardized test scores reflect highly (not perfectly) stable and enduring competencies.

We had the weakest criteria for student effort. All were self-report data that could be influenced by any number of biases (e.g., self-consistency, self-enhancement, social desirability, etc.). Of course, we did have multiple measures of student effort. Therefore, our conclusions regarding the accuracy of teacher perceptions of effort did not rest entirely on any one criterion. Still, we must acknowledge that even the use of multiple measures does not raise our effort criteria to the same quality as we had for student performance and talent.

The limitations associated with self-report criteria also raise an important caveat regarding our conclusion that teachers inaccurately perceived differences between girls' and boys' effort. Perhaps teachers were accurate and the self-report measures were inaccurate. Research does show that girls and boys often perceive their ability differently (Beyer, 1990; Eccles [Parsons] et al., 1984). If this happened in our sample, then teachers may have held more accurate perceptions of girls' and boys' effort than our results suggest.

Nonetheless, our results do mirror patterns found by other researchers who have also used self-report data as the criteria for accuracy. Among stereotypes as diverse as college majors (Judd & Park, 1993; Judd, Ryan, & Park, 1991), political parties (Dawes, Singer, & Lemons, 1972; Hovland, Harvey, & Sherif, 1957; Judd & Park, 1993), and ethnic groups (Ryan, Park, & Judd, 1996), perceivers consistently show greater bias when target group self-reports are used as criteria than when more objective measures are used (e.g., McCauley & Stitt, 1978; McCauley & Thangavelu, 1991; Swim, 1994). Understanding why bias is more likely with self-report criteria than with more objective criteria is clearly an important area for future research to address.

Correlational design. Typically, with correlational designs one cannot identify whether the predictor(s) caused the dependent variable, the dependent variable caused the predictor(s), or whether both were caused by a third variable. However, with longitudinal designs, one can rule out the possibility that the dependent variable influenced the predictor(s). For example, we can be certain that teacher perceptions measured at the beginning of the seventh grade did not cause students' sixth-grade final marks.

Longitudinal designs do not, however, rule out the possibility that a relevant predictor was excluded from the analyses. In fact, the omission of a relevant predictor characterizes all nonexperimental studies. No matter how many variables are included in a naturalistic study, it is always possible that a relevant one was omitted (see, e.g., Judd & McClelland, 1989; Pedhazur, 1982). However, it is important to fully consider what the omission of a relevant predictor means with respect to our results. Had we omitted a relevant predictor, it would mean that teachers were basing their perceptions on another personal characteristic of students and were using stereotypes even less than our results suggested. Thus, the potential omission of a relevant predictor does not vitiate our conclusion that stereotypes had only weak effects on teacher perceptions.

Accuracy and Inaccuracy

Teacher perceptions of the differences and similarities between students from different groups were most powerful for sex. Teachers inaccurately perceived girls as exerting more effort than boys. One reason that teachers may have perceived girls as trying harder than boys is because girls are more pleasant and cooperative and exhibit fewer behavioral problems in the classroom (e.g., Brophy & Good, 1974; Bye, 1994; Wentzel, 1989). Teachers may also have perceived girls as trying harder than boys because of attributional biases. Adults often attribute females' math achievement to effort more than to ability (Yee & Eccles, 1988). However, inaccuracy did not characterize teacher perceptions in general. Teachers tended to accurately perceive the differences and similarities between lower- and higher-class students and between African American and White students. Thus, overall, teacher perceptions of students from different demographic groups were more accurate than inaccurate.

Why were teacher perceptions so accurate? Perhaps many of the situational conditions that lead perceivers to develop inaccurate stereotypes were not operating. Perceivers tend to develop inaccurate stereotypes when they are in conflict over scarce resources, hold social identity concerns, and have unequal and limited contact with members of different groups (Allport, 1954; Sherif & Sherif, 1953; Tajfel & Turner, 1979). However, it seems unlikely that these situational conditions characterized the teacher-student relationship. Teachers and students were not competing for scarce resources. It seems unlikely that teachers would need to denigrate students on the basis of sex, social class, and ethnicity to enhance their own social identity. Even if teachers did want to denigrate students, there would be little need to resort to stereotypes. Students are objectively less skilled than teachers on all sorts of dimensions because of their age and maturity. Finally, although teachers and students do have unequal status in the classroom, their status is not contingent on their demographic group membership. Thus, many of the conditions that might have led teach-

ers to hold inaccurate stereotypes may not have been present in the classroom.

The Power of Stereotypes to Bias Person Perception

Our results also suggested that teachers relied on sex stereotypes when judging individual girls and boys. In fact, the strength of these relationships exceeded those found in our previous research (Jussim & Eccles, 1995; Jussim et al., 1996). This pattern is consistent with the prediction that situational differences between the sixth and seventh grade would lead the junior high school teachers in our current study to be more susceptible to bias than the elementary school teachers in our previous study. Yet, even here, where sex stereotypes had their strongest effects, those effects were weak in comparison to the effects of students' personal characteristics. Moreover, stereotype effects were very weak for social class and nonexistent for ethnicity.

This pattern of weak stereotype effects may have arisen for several reasons. Most important, perceivers under naturalistic conditions, even when taxed cognitively and provided with only limited information about targets, may have more attentional resources and more information about targets than do subjects in the typical experiment. Experiments frequently manipulate how much perceivers can attend to targets by having subjects engage in two tasks at once (e.g., Gilbert & Hixon, 1991; Gilbert, Krull, & Pelham, 1988). This situation differs dramatically from many naturalistic settings. Under naturalistic conditions, even the most cognitively busy perceivers probably have more attentional resources to devote to targets' personal characteristics than do subjects in experiments. Even if they do not, they can at least postpone forming an impression until they can attend more closely.

Perceivers in many naturalistic settings also have much more information about targets than do subjects in most experiments. Subjects in the typical experiment are provided with impoverished information about targets, often including only category membership and a few personality traits (see Kunda & Thagard, 1996, for a review). There is growing evidence that stereotyping is more powerful under precisely this condition (Kunda & Thagard, 1996; Oakes et al., 1994). With little else on which to base their impressions, subjects may resort to stereotyping as one way to fill in the gaps in their impressions (Madon, 1998). However, information about targets is much more abundant in many naturalistic settings. For example, in our research, teachers had access to a variety of information about students, including their grades and standardized test scores. When information about targets is abundant, perceivers may have little need to rely on stereotypes to fill in the gaps in their impressions because there are far fewer gaps to fill. Thus, even though our junior high school teachers may have been more susceptible to bias than our elementary school teachers, they may not have been as susceptible to bias as are subjects in the typical experiment.

This does not mean, however, that stereotypes are never powerful in naturalistic settings. In fact, there are some naturalistic contexts in which perceivers interact only briefly with targets and have only minimal information about their backgrounds. For example, landlords typically meet prospective tenants for only a short period of time and often have little information about their personal histories. Employers often decide who to hire on the basis of a brief resume and a short interview. Perceivers in these types of naturalistic contexts may be more likely to rely on stereotypes when judging individuals.

CONCLUSION

Psychology has historically characterized stereotypes as inaccurate and as exerting powerful effects on person perception (Brewer, 1988, 1996; Devine, 1989; Fiske & Neuberg, 1990; LaPierre, 1936; Mackie, 1973). Recently, however, the emphasis on the inaccuracy and power of stereotypes has come under heavy theoretical and empirical challenge (Eagly, 1995; Eagly et al., 1991; Fox, 1992; Jussim, 1990, 1991; Jussim et al., 1996; Lee, Jussim, & McCauley, 1995; McCauley et al., 1980; Oakes et al., 1994; Ottati & Lee, 1995; van den Berghe, 1997). Modern research shows that stereotypes are not always inaccurate and that their effects on person perception are often weak by any standard, but especially when compared to the effects of targets' personal characteristics (Jussim, 1991; Kunda & Thagard, 1996). Of course, this does not mean that stereotypes are usually accurate and always have weak effects on person perception. There may be social situations that are characterized by situational and motivational conditions that promote greater bias. When these conditions are present in naturalistic settings, stereotypes may be much less accurate and more powerful than we found here. However, until research addresses a wide variety of naturalistic situations, any general conclusions regarding the inaccuracy and power of stereotypes is premature.

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