
Equating Characteristics and Status-Organizing Processes*

HENRY A. WALKER
University of Arizona

BRENT T. SIMPSON
Cornell University

After three decades of research, it remains unclear whether actors use equal status information in status-generalizing processes. In this article we use the graph-theoretic interpretation of status-characteristic theory to examine the question. The analysis suggests that equating information can produce substantial changes in individual expectations for actors differentiated on one or more status characteristics. Sizable changes in expectations, however, produce only very small effects on behavior as measured by the probability of self-responses or $P(S)$. The analysis shows that stable $P(S)$ values are consistent with both the use of equal-status information and the failure to use such information. We conclude with a discussion of theoretical and practical implications of the findings and suggestions for further research.

The theory of status characteristics and expectation states (Berger, Cohen, and Zelditch 1966, 1972; Berger, et al. 1977; Berger and Zelditch 1998) offers the most comprehensive understanding of status-organizing processes available to micro-analytic researchers. The theory explains how interactants use differences on specific and diffuse status characteristics to create hierarchical patterns of power, influence, and prestige in task groups. For more than four decades, researchers have tested successive theoretical refinements and have compiled an impressive record of confirmatory findings.

In the late 1960s, status characteristic researchers raised questions about the role played by *equal status* in status-organizing processes (Cohen, Kiker, and Kruse 1969). Crucial issues concern whether actors use equating information and, if they do so, how such information affects expectations and behavior. In this article we revisit the equating-information question beginning with a brief discussion of the problem. Next we use

the theory's graphic formulation to estimate expectations for individuals, expectation advantages, and the probability of self-responses, $P(S)$, for equal-status situations. We conclude by discussing the implications of our analysis for theory development and for understanding practical consequences of status-generalizing processes, and we make suggestions for future research.

STATUS CHARACTERISTICS AND SOCIAL INTERACTION

Status characteristic theory explains the relationship between an actor's standing (relative to co-acting partners) on status characteristics and the organization of task behavior (Berger et al. 1966, 1972, 1977; Berger and Zelditch 1998).¹ It describes a burden-of-proof process through which actors use status information to infer performance expectations. In turn, the theory claims that performance expectations organize interaction: group members for whom

* The School of Graduate Studies at Cornell University provided funds in support of theory developments reported in this paper. We thank the editors and anonymous reviewers at *SPQ* for helpful suggestions on earlier versions. Direct comments to the first author at the Department of Sociology, 400 Social Sciences Building, University of Arizona, Tucson, AZ 85721-0027 (hawalker@u.arizona.edu).

¹ We do not provide a detailed summary of the theory here. Instead we direct readers to the initial and graph-theoretic formulations of the theory (Berger et al. 1966; Berger et al. 1977). Berger et al. (1977) offer full specification of the theory, its scope restrictions, and operational procedures. Berger, Fisek, and Norman (1998) and Wagner and Berger (1993) provide concise, nontechnical summaries of developments in the theoretical research program.

expectations are higher enact more powerful, more influential, and more prestigious behaviors than those for whom expectations are lower.

Theorists restricted the initial formulation to situations containing a single differentiated diffuse characteristic (Berger et al. 1966). Situations in which actors held equal status on one or more characteristics lay outside the theory's scope. Publicly the theorists expressed uncertainty about whether actors use equating information in the burden-of-proof process (Berger et al. 1972; Berger and Fisek 1974). They assumed, however, that equal-status information would not reduce the effects of differentiated status on the behaviors that make up observable power and prestige orders (Berger et al. 1977:57). In contrast, Kerwin (1974, 1977) expressed a less equivocal view, arguing that actors use both differentiating and equating information. He also assumed that interactants assign *equal and average ability* to themselves and to others when they lack information about their standing on salient characteristics.

In the 1970s, status-characteristic theorists extended their ideas to multiple characteristics and introduced a graphic formulation (Berger et al. 1977). The graph-theoretic version of the theory implies that equating characteristics may become salient in status-organizing processes (and that actors may use such information), but only when they are connected to the task. Officially the theory remains silent on whether actors use equal-status information in the status-generalization process (Berger et al. 1998:203, note 2).

Empirical Findings

A few studies compare influence patterns among status-differentiated actors with those of actors who possess both differentiated and equated status (Cohen et al. 1969; Greenstein and Knottnerus 1980; Martin and Sell 1985; Seashore 1968; Webster and Berger 1975; Webster 1977). Using traditional measures of status effects, such as $P(S)$, none of these investigators report statistically significant differences between the com-

parison groups. Nevertheless, they offer different interpretations of their findings.

Seashore (1968) created four experimental treatments in which female subjects (Ss) held, in comparison with their partners, (1) equal status on gender and educational status and higher race status, (2) equal status on race and gender and lower educational status, (3) equal status on gender, higher race status, and lower educational status, and (4) equal status on all three characteristics. Seashore found *no* significant between-treatment differences in $P(S)$, the most common measure of status effects in status-characteristic experiments.²

Cohen et al. (1969) reviewed Seashore's findings and speculated that equal-status information dampens or eliminates the effects of differentiated status. Their experiment studied Ss who held (1) high race status, (2) high race status and equal age status, (3) low educational status, and (4) low educational status and equal age status. The investigators reported similar $P(S)$ values for all four experimental treatments and concluded—in keeping with their hypothesis—that equal-status information dampens the effects of status differentiation.³

Webster and Berger (1975), Webster (1977), Greenstein and Knottnerus (1980), and Martin and Sell (1985) also studied the effects of equating characteristics. (Also see Balkwell 1991:144–45 for a discussion of research by Berger, Fisek, and Crosbie 1970 and Webster 1977.) Each study compared

² Seashore's study focused on the effects of incongruent status (i.e., situations such as Treatment 3 in which actors possess inconsistent rank on two or more status dimensions). Her findings motivated the research on equal status conducted by Cohen et al. (1969). Neither study has been published. Our discussion of these and other unpublished studies (e.g., Berger, Fisek, and Crosbie (1970); Webster and Berger (1975)), draws on Seashore (1968) and on summaries in Balkwell (1991), Berger et al. (1977), and Webster (1977). Below we discuss Seashore's failure to find any significant between-treatment differences.

³ We express reservations about this interpretation. Support for their conclusions requires the following ordering of results for the four experimental treatments: $P(S)_1 > P(S)_2$, and $P(S)_3 < P(S)_4$. The absence of pairwise differences for Treatments 1 and 2 or 3 and 4 suggests that equating information had no effect on the behavior of either high- or low-status Ss.

situations in which subjects held only differentiated status with situations in which actors held both differentiated and equated statuses. None of the studies reported significant equating effects on behavior. Webster (1977) interpreted his findings as evidence against Kervin's assumption that actors assign equal and average status to characteristics for which they lack status information. All concluded that actors do not use equal-status information in the status-generalization process. Finally, Balkwell (1991) conducted goodness-of-fit tests on data collected by Berger et al. (1970) and Webster (1977) and concluded that equating information becomes salient only if the equating characteristic is connected to the task. We return to Balkwell's analysis in our discussion.

EQUATING CHARACTERISTICS: ANOTHER LOOK

Here, we apply the graph-theoretic model of status-characteristic theory to the equating-characteristics problem. We estimate equating effects on actors' expectations, aggregated expectations, and power and prestige as measured by $P(S)$.

Figure 1 describes a basic status situation in which two actors, P and O, possess different states of a diffuse characteristic D. The theory's scope conditions require P and O to work at a task that has both successful ($T+$) and unsuccessful ($T-$) outcomes. In

addition, P and O believe that success at the task requires some instrumental ability (C^*).

The solid lines that connect P and O to states of D ($D+$ and $D-$) in Figure 1 represent possession. The signed path that connects oppositely evaluated states of D symbolizes a *dimensionality* relation.⁴ Finally, the lines that connect states of D to states of Γ , and states of C^* to states of T, represent *relevance* relations. The theory's burden-of-proof assumption implies the (induced) relevance relations represented by dashed lines. That is, the theory claims that actors use information about Ds and their associated general performance expectation states to assign states of the instrumental task characteristic (C^*) to self and to other.

Figure 1 shows that two positive paths of lengths 4 and 5 connect P to task-outcome states ($P-D^+-\Gamma^+-C^{*+}-T^+$ and $P-D^+-D^--\Gamma^- -C^{*-}-T^-$).⁵ The graph is symmetrical, and *negative* paths of lengths 4 and 5 connect O to task outcome states. We use Walker's (1999a) program for estimating expectations,

⁴ Dimensionality relations connect differentiated states of Ds and Cs when actors in a given situation *actually possess* those states. Dimensionality relations have negative valences.

⁵ The valence of a path is the product of the signed lines that constitute it times the sign of the terminus (T^- or T^+). The path ($P-D^+-D^--\Gamma^- -C^{*-}-T^-$) consists of five line segments—one of which, the dimensionality relation (D^+-D^-), is negative—and a negative task-outcome state. The five-segment line carries a positive valence.

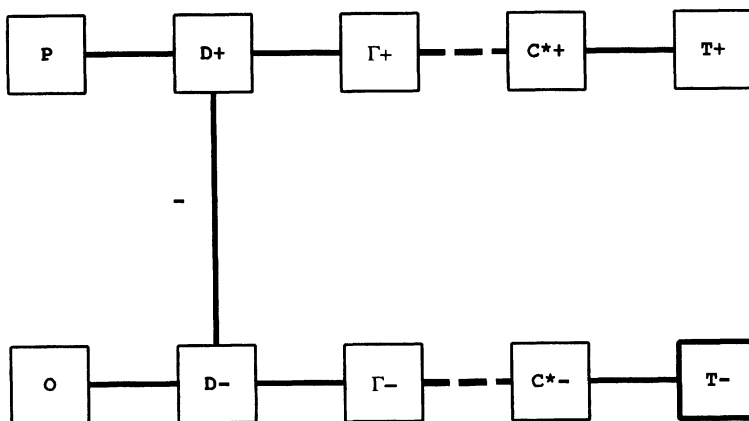


Figure 1. Basic Status Situation

expectation advantage, and $P(S)$ as in Eq. 1. We set the parameters $m = .66$ and $q = .153$.⁶ As the theory predicts, estimates of expectations for P and O differ ($e_P = .183$, $e_O = -.183$) and P holds a positive expectation advantage ($e_P - e_O = .366$). Finally, estimates show higher $P(S)$ values for P ($P(S)_P = .716$, $P(S)_O = .604$).

$$P(S) = m + q(e_P - e_O) \quad (1)$$

P and O hold high and low status respectively on D, but possess equally high status on the specific characteristic, C1, in Figure 2. Compared with Figure 1, Figure 2 contains two new positive four-paths that connect P and O to the positive task-outcome state, T^+ ($P-C_1^+-\tau^+-Y^+-T^+$ and $O-C_1^+-\tau^+-Y^+-T^+$).⁷ Estimates for Figure 2 show more positive expectations for *both* actors than do estimates for Figure 1 (equal status $e_P = .294$, basic situation $e_P = .183$; equal status $e_O = -.047$, basic situation $e_O = -.183$). Expectations for O change more (+.136) than those for P (+.111). Consequently, equal status reduces P's expectation advantage in relation to the basic situation (.341 versus .366) and $P(S)$ values converge ($P(S)_P = .712$, $P(S)_O = .608$, difference = .104 versus .112).⁸ Adding more equating characteristics produces slightly greater convergence in expectations and $P(S)$. For example, differences in $P(S)$

decline from .112 in the basic situation to .088 when we equate differentiated actors on *four* specific characteristics.

A Special Case: Equal and Average Status

Kervin (1977) assumed that actors are *completely uncertain* about their prospects for task success when they hold equal and average status. Consider an actor who learns that both she and her partner scored either 20 percent or 85 percent on a test of the ability C_x . She can justifiably assign low performance expectations to herself and her partner when given the first score, or high expectations when they receive the second score. On the other hand, we suspect that she will find it difficult to infer either high or low expectations when she and her partner possess equal and average ability (e.g., they score 50 percent on C_x).

We estimate two models for actors differentiated on a D and assigned equal and average ability on a C. The first model assumes that actors are equally likely to assign high or low status to self and to other. This stochastic model generates estimates equivalent to the mean of estimates for actors who possess equally high and equally low status. Estimates for individual expectations are weaker than for the basic situation ($e_P = .171$, $e_O = -.171$), but $P(S)$ values are identical to those for actors who hold equally high or equally low status ($P(S)_P = .712$, $P(S)_O = .608$, difference = .104).

The second estimates use a "switching" model which assumes that actors alternate randomly from high to low status on successive trials. To produce these estimates, we add both negative and positive four-paths to the basic differentiated structure. Under the switching model, expectations are weaker than under the stochastic model but remain symmetric while the $P(S)$ gap closes ever more slightly ($e_P = .158$, $e_O = -.158$; $P(S)_P = .708$, $P(S)_O = .612$, difference = .096).

DISCUSSION

Basic Results

The analysis reported here uncovers three regularities. First, it shows that equat-

⁶ The parameters m and q vary with characteristics of subject populations and settings respectively (Berger et al. 1977). In an earlier version of this paper, we set $m = .66$ and $q = .1$ in keeping with an example used by Berger et al. (1977:133). An ad hoc reviewer suggested that our analysis might be affected substantially if we used larger estimates of q . In this version, we set m as before but set $q = .153$. Berger et al. estimate this value for a study conducted by Freese (1974). It is the largest of 12 estimates they report. Our use of the higher value does not change any of our substantive conclusions.

⁷ The process that connects specific characteristics to task outcome states (through τ and Y) is analogous to the process that connects diffuse characteristics to instrumental characteristics. The symbol τ represents a specific task outcome; Y stands for abstract task ability. (See Berger et al. 1977:97-98, 108-109.)

⁸ Equating actors on status characteristics adds an equal number of identical paths for each actor. Small differences in effects result from simultaneous operation of *attenuation* and *inconsistency* effects (Berger et al. 1977).

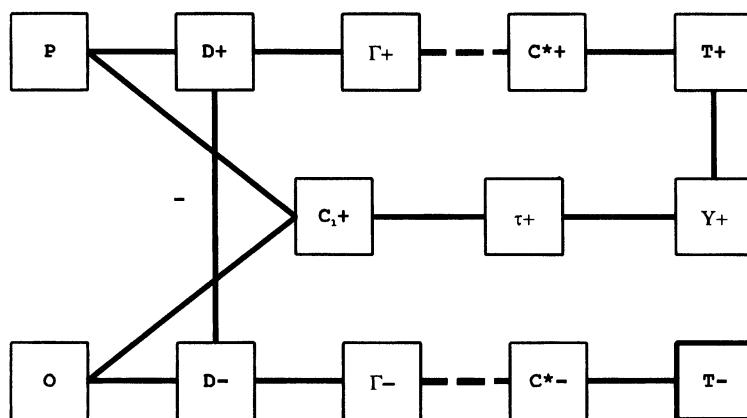


Figure 2. Status Structure With a Differentiating and Equating Characteristic

ing information can produce sizable effects on *individual expectations*. (See the statistical summary in Table 1.)⁹ Second, high-equal and low-equal status produce changes in expectations that are identical in sign and of comparable size for high- and low-status actors. The pattern holds for both Ds and Cs, although instrumental characteristics (C^*) produce larger effects because they involve shorter paths of relevance (i.e., lengths of 2 and 3 rather than 4 and 5). Third, and following from the first two findings, sizable changes in expectations have only small effects on *expectation advantages and behavior*.

The last observation follows from a key argument of status-characteristic theory: behavioral differences (e.g., as measured by $P(S)$) reflect *relative* expectations rather than the size of individual expectations. Consequently, small increments (or decrements) in expectation advantages produce minimal effects on differences in P 's and O 's $P(S)$ or other status-related behaviors.

The special case of equal and average status offers the only variation from these general observations. The stochastic model estimates show that changes in expectations are identical for low- and high-status actors, but the *signs* of the effects differ. Expectations for high-status actors become less positive, while those for low-status actors become more positive.¹⁰ Estimates for

expectation advantages and $P(S)$, however, are identical to those for actors who possess high-equal and low-equal status. (Compare Lines 2, 3, and 6 in Table 1.) The switching model estimates show larger effects on expectations. (Compare Lines 6 and 7 in Table 1.) As a result, expectation advantages, and differences in $P(S)$ are smaller than estimates for the stochastic model.¹¹

This last observation bears on Balkwell's goodness-of-fit tests for Webster's (1977) data. Balkwell (1991) tested two models: one assumes salience for equal and average status, and the other assumes that the information is not salient. Balkwell's predictions for the "salience" model are identical to those we derive from our switching model. (Results are not shown, but see Balkwell 1991, Table 9.) The "no salience" model fits Webster's data, but the "salience" model fits poorly. Balkwell concludes that equating information becomes salient only when focal characteristics are task-connected.

As we pointed out above, the switching model offers only one set of plausible esti-

research will recognize the similarity of this effect to the effect of incongruent or inconsistent status. (See note 2 above; below see our discussion of Hembroff, Martin, and Sell 1981.)

¹¹ The stochastic model estimates $P(S)$ differences of .088 for actors differentiated on one characteristic and holding equal but average status on four specific characteristics. The result is identical to that for four equally high characteristics (see Line 4 in Table 1). The switching model estimate is .063. (See Line 8 in Table 1, and compare both equal and average results with estimates for the basic situation on Line 1.)

⁹ All data entries are rounded to two decimal places.

¹⁰ Readers familiar with status characteristic

Table 1. Effects of Selected Equal Status Situations on Expectations, Expectation Advantage, and $P(S)$ for Actors Differentiated on a Diffuse Characteristic

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Equating Characteristic	e_p	e_o	$e_p - e_o$	Change	$P(S)_p$	$P(S)_o$	(6-7)
				$e_p - e_o$ (From Line 1)			
1. None	.18	-.18	.36		.72	.60	.11
2. C (High)	.29	-.05	.34	-.02	.71	.61	.10
3. C (Low)	.05	-.29	.34	-.02	.71	.61	.10
4. C ₁ , C ₂ , C ₃ , C ₄ (All High)	.54	.26	.28	-.08	.70	.62	.09
5. C* (High)	.70	.45	.25	-.11	.70	.62	.08
6. C(Average/Stochastic)	.17	-.17	.34	-.02	.71	.61	.10
7. C(Average/Switching)	.16	-.16	.32	-.05	.71	.61	.10
8. C ₁ , C ₂ , C ₃ , C ₄ (All Average/Switching)	.10	-.10	.20	-.16	.69	.63	.06

mates. We duplicated Balkwell's test using our stochastic model. (Results are not shown.) The new estimates reduce differences between predictions and Webster's data by approximately 80 percent for high-status actors and almost 90 percent for low-status actors. The new estimates improve the fit of the "salience" model; consequently they change assessments of the relative validity of the "salience" and the "no-salience" models because both fit the data.

Using Theory to Guide Analysis

Our analysis shows two benefits of using theory rather than intuition to guide research and analysis. First, analyses based on theory can uncover phenomena or suggest hypotheses that are otherwise unanticipated. Second, theory-based analyses help researchers to interpret previously uninterpretable findings or findings susceptible to multiple interpretations.

Intuition apparently led some investigators to predict that (1) equating information weakens expectations for high-status actors and strengthens those for low-status actors. This idea combined with the theory, suggests two additional hypotheses: (2) equating information reduces (or eliminates) expectation advantage for high-status compared with low-status actors, and (3) equating information reduces (or eliminates) status-based differences in power, prestige, and influence.

We show that equating information weakens or strengthens expectations uniformly for high- and low-status actors,

depending on the character of the information. Only equal and average status produces effects consistent with the first hypothesis based on intuition. As the present analysis also shows, status-characteristic theory implies that equal-status information has minimal effects on expectation advantage and status-based behavior. As a result, stable $P(S)$ values follow from either the use or the *failure to use* equal-status information in status-organizing processes. We use this last implication of the theory in our evaluation of existing research.

Fit with Existing Data

Our analysis is consistent with *all* findings from equating-characteristics research (Cohen et al. 1969; Greenstein and Knottnerus 1980; Martin and Sell 1985; Seashore 1968; Webster 1977). All compare responses of Ss differentiated on at least one status characteristic with Ss who possess differentiated and equated statuses. None report equal status effects. In addition, our application of the graphic model to Seashore's (1968) findings makes sense of previously incomprehensible findings.

Our analysis offers insight into the controversy that centered on Seashore's failure to find significant differences between E-E-H and E-L-E treatments. We estimated $P(S)$ values for Seashore's four experimental treatments, setting $m = .62$ (the observed value for Ss equated on all three study characteristics) and $q = .153$. The q value produces the most liberal estimate of status effects on $P(S)$. Our estimates (in italics)

compare favorably with Seashore's observations (E-E-H = .67 and .63; E-L-E = .57 and .61; E-L-H = .62 and .60; E-E-E = .62 and .62). We used Seashore's treatment variances and the predicted values for high- and low-status Ss equated on two characteristics (.67 and .57) and found that the differences were statistically significant. The observed values (.63 and .61), however, fall within the 95 percent confidence intervals surrounding the predicted values. Seashore's findings seem to represent a remarkable coincidence of chance fluctuations.

We describe other findings that fit our analysis. Hembroff, Martin, and Sell (1981) studied the effects of *total performance inconsistency* on status-generalization processes.¹² Total performance inconsistency exists when actors hold inconsistently differentiated statuses on two or more performance characteristics. Hembroff et al. argued that actors ignore totally inconsistent performance information, and studied the effects of two totally inconsistent performance sets. In the first set, actors were differentiated but were assigned *inconsistent* status on two characteristics (1H1L and 1L1H). In the second, actors held totally inconsistent performance status on four characteristics (2H2L and 2L2H).

The situations discussed by Hembroff et al. differ structurally from equal-status situations. They possess the virtue of *analytic* similarity because the graph-theoretic model does not distinguish qualitative differences in characteristics. Situations in which two actors hold HL and LH status respectively on C_1 and C_2 are analytically identical to situations in which actors hold HL and HL status on the same characteristics. Hembroff et al. reported substantial differences in $P(S)$ responses for high- and low-status Ss differentiated on a single characteristic. Their responses, however, were indistinguishable from those of Ss differentiated on the same characteristic and totally inconsistent on the four-characteristic performance set (H ver-

sus H-2H2L and L versus L-2H2L). The result is consistent with predictions from our application of the graphic formulation to the study conditions.

IMPLICATIONS

Our analysis has important implications for understanding status-organizing processes as they unfold in the laboratory and in naturally occurring groups. Human groups normally exhibit high levels of homophily. Similarly, pioneering laboratory studies of the emergence of power and prestige orders began with groups whose members initially were status equals (Bales 1950). Yet despite their essential similarity, members of such groups quickly established stable power and prestige hierarchies *after* they established performance inequalities.

The present analysis implies stable differentiation in task groups without substantial changes in actors' perceptions of their *relative* status on instrumental characteristics, or on characteristics highly correlated with them. Assigning actors inconsistent status on additional status characteristics creates fundamental change in their status relations. Assigning them equal status on additional characteristics does not produce change.

Our work suggests a deeper understanding of the incredible stability of status relations in natural settings among actors differentiated on diffuse characteristics such as race or gender.¹³ Our analysis implies that equating persons who are differentiated on diffuse characteristics will have only a limited effect on the stability of established power and prestige hierarchies.

¹³ We are aware that "routine" interaction fails to meet some of the theory's scope limitations. For example, such situations appear to violate the requirement that group members work at a collective task. We respond in two ways. First, many (possibly most) groups focus on some collective purpose; students of group processes may define "task group" too narrowly. Second, the evidence seems to show clearly that status-generalization processes are required to establish diffuse characteristics (see Jasso 1991; Ridgeway 1991; Ridgeway et al. 1998; Webster and Hysom 1998). Perhaps the time has come to relax this scope restriction.

¹² We are grateful to an ad hoc reviewer who directed our attention to this paper as an example of equal-status research. As we show below, the study does not establish equal status, but it creates conditions that are analytically similar to equal-status situations.

Research shows that status interventions can moderate or even reverse the effects of status differences. Successful interventions either (1) provide actors with *inconsistent-status* information (e.g., information implying high ability for low-status actors and low ability for high-status actors) as in several laboratory studies (Cohen and Roper 1972; Foddy and Smithson 1997; Markovsky, Berger, and Smith 1984; Pugh and Wahrman 1983; Wagner, Ford, and Ford 1986;), or (2) provide equal-status information for characteristics that actors believe are closely associated with states of the focal diffuse characteristic (Robinson and Preston 1976).

We speculate that the second intervention technique in effect *dissociates* initially associated specific characteristics from diffuse characteristics. For example, some believe that blacks' athletic skills are superior to those of whites. Interactants who learn that white athletes possess athletic ability equal to that of their black counterparts may eventually dissociate athletic ability from race.¹⁴ Complete dissociation of specific characteristics from social categories creates situations free of prejudice, or what experts on intergroup relations call "color blindness."

These observations suggest the practical importance of our findings and indicate the need to revise *theoretical* understandings of the equating-characteristics phenomenon. Policy makers currently focus on ways to create legal and *practical* equality of status-differentiated social groups (e.g., women and men, or persons who possess disparate sexual identities). Our analysis implies that making successful social policy in this arena may depend ultimately on social science understandings of the role played by equal-status information in status-organizing processes (Walker 1999b).

¹⁴ We reason that one instance may be insufficient to change general expectations. On the other hand, whether dissociation is *episode-specific* for expectations held for specific individuals or whether it carries over to other situations is an important question warranting further investigation. See Markovsky et al. (1984) for evidence that, under certain conditions, the effects of status information transfer to new situations.

Prospects for Future Research

We began our examination of the equating-characteristics problem with three questions: How does equating information affect actors' expectations for self and for others? How does such information affect existing expectations based in status differentiation? How does equal-status information affect expectation advantage and behavior? Our research provides provocative answers to these questions. Unfortunately, our analysis is silent on the most important question: Do actors use equating information in the burden-of-proof process? Our research makes clear that researchers cannot properly infer an answer to this question from existing data. Our analysis, however, suggests a way of resolving the issue: equal-status information, if used, ought to produce changes in individual expectations. Investigative techniques that measure effects of changes in individual expectations permit researchers to discover whether actors use equating information in status-organizing processes.

We identify two techniques that may offer greater insight into the role of equal-status information in status-generalization processes. Each depends on analyzing equal-status effects on individual expectations. The first uses paper-and-pencil evaluations; the second depends on physiological indicators.

Zeller and Warnecke (1973) studied the effects of status differences on the allocation of task responsibility. The researchers used Ss' paper-and-pencil evaluations to estimate *perceived general competence*, an idea that is conceptually similar to a general performance expectation. Zeller and Warnecke obtained Ss' responses to nine questionnaire items; using factor analysis on seven items, they identified three component factors. Their analysis suggests that a process model containing the perceived general competence factor fits their data best.

Webster and Driskell (1978, 1983) used a modification of the Zeller and Warnecke technique as a secondary measure, and reported that it correlates well with both status information and $P(S)$. In related research, Foschi (1989, 1996) used paper-and-pencil responses to elicit Ss' estimates of standards for ability or lack of ability.

Similarly, Spencer and Steele (1995; Spencer, Steele, and Quinn 1999) used paper-and-pencil tests to measure women's expectations for mathematics performance.

We observe that in each of these studies, questionnaires were administered *after* Ss completed the performance phase. As a result, it is not clear whether expectations vary with status or with performances affected by status differences. This question is answered easily by administering questionnaires immediately after status manipulations.

Our second suggestion involves the use of physiological measures, a technique with few precedents in the status-characteristic program or in sociology. In one study, Harris (1981) established status differences experimentally in the standard status-characteristic setting. He argued (1) that status differences affect attention to the task, and (2) that differences in attention cause different patterns of brain activity. He monitored brain wave functions as subjects worked a standard task, and reported significant differences in brain-wave patterns for high- and low-status subjects.

More recently, Steele and his associates (personal communication with the first author) studied race differences in standardized test performances by activating race status in some experimental treatments but not in others. (For descriptions of the basic techniques, see Steele and Aronson 1995.) The researchers took blood pressure readings from subjects in both treatments. They reported significant between-treatment differences in blood pressures for low-status (black) but not for high-status (white) subjects. Steele and his associates presumed that *stereotype threat*, their principal mediating construct, created stress for low-status actors and that differences in blood pressure reflected the increased levels of stress. Taken together, Harris's and Steele's studies suggest that physiological states reflect changes generated by status processes. We argue that they offer a plausible avenue for investigating questions about the role of equating information in status-generalizing processes.

CONCLUSION

Our research shows that equal-status information can create substantial effects on expectations if actors use it in the burden-of-proof process. We show as well that status effects on conventional influence measures are probably too small to permit reliable inferences about whether actors use such information. We suggest two investigative techniques that may prove more fruitful. Both methods measure the effects of variation in individual rather than relative expectations. We expect research using such measures to increase our understanding of the role played by equal-status information in status-organizing processes.

REFERENCES

- Bales, Robert F. 1950. *Interaction Process Analysis: A Method for the Study of Small Groups*. Reading, MA: Addison-Wesley.
- Balkwell, James W. 1991. "Status Characteristics and Social Interaction: An Assessment of Theoretical Variants." Pp. 135-76 in *Advances in Group Processes*, Vol. 8, edited by Edward J. Lawler, Barry Markovsky, Cecilia Ridgeway, and Henry A. Walker. Greenwich, CT: JAI.
- Berger, Joseph, Bernard P. Cohen, and Morris Zelditch Jr. 1966. "Status Characteristics and Expectation States." Pp. 29-46 in *Sociological Theories in Progress*, Vol. 1, edited by Joseph Berger, Morris Zelditch Jr., and Bo Anderson. Boston: Houghton Mifflin.
- . 1972. "Status Characteristics and Social Interaction." *American Sociological Review* 37:241-55.
- Berger, Joseph and M. Hamit Fisek. 1974. "A Generalization of the Theory of Status Characteristics and Expectation States." Pp. 163-205 in *Expectation States Theory*, edited by Joseph Berger, Thomas L. Conner, and M. Hamit Fisek. Cambridge, MA: Winthrop.
- Berger, Joseph, M. Hamit Fisek, and Paul V. Crosbie. 1970. "Multi-Characteristic Status Situations and the Determination of Power-and-Prestige Orders." Technical Report 35, Laboratory for Social Research, Stanford University.
- Berger, Joseph, M. Hamit Fisek, and Robert Z. Norman. 1998. "The Evolution of Status Expectations: A Theoretical Extension." Pp. 175-205 in *Status, Power and Legitimacy*, edited by Joseph Berger and Morris

- Zelditch Jr. New Brunswick, NJ: Transaction.
- Berger, Joseph, M. Hamit Fisek, Robert Z. Norman, and Morris Zelditch Jr. 1977. *Status Characteristics and Social Interaction*. New York: Elsevier.
- Berger, Joseph and Morris Zelditch Jr. 1998. *Status, Power and Legitimacy*. New Brunswick, NJ: Transaction.
- Cohen, Bernard P., Joan E. Kiker, and Ronald J. Kruse. 1969. "The Formation of Performance Expectations Based on Race and Education: A Replication." Technical Report 30, Laboratory for Social Research, Stanford University.
- Cohen, Elizabeth G. and Susan S. Roper. 1972. "Modification of Interracial Interaction Disability: An Application of Status Characteristic Theory." *American Sociological Review* 37:643-57.
- Foddy, Margaret and Michael Smithson. 1997. "Can Gender Inequalities Be Eliminated?" School of Psychology, La Trobe University, Bundoora, Victoria, Australia. Unpublished paper.
- Foschi, Martha. 1989. "Status Characteristics, Standards, and Attributions." Pp. 58-72 in *Sociological Theories in Progress: New Formulations*, edited by Joseph Berger, Morris Zelditch Jr., and Bo Anderson. Newbury Park, CA: Sage.
- . 1996. "Double Standards in the Evaluation of Men and Women." *Social Psychology Quarterly* 59:237-54.
- Freese, Lee. 1974. "Conditions for Status Equality in Informal Task Groups." *Sociometry* 37:174-88.
- Greenstein, Theodore and J. David Knottnerus. 1980. "The Effects of Differential Evaluations on Status Generalization." *Social Psychology Quarterly* 43:147-54.
- Harris, William A. H., Jr. 1981. "A Physiological Investigation of Social Status." Ph.D. dissertation, Department of Sociology, Stanford University.
- Hembroff, Larry A., Michael W. Martin, and Jane Sell. 1981. "Total Performance Inconsistency and Status Generalization: An Expectation States Formulation." *The Sociological Quarterly* 22:421-30.
- Jasso, Guillermina. 1991. "A Mechanism Possibly Implicated in the Origin of Gender Inequality: Framework and an Initial Theorem." Presented to the Iowa Workshop on Theoretical Analysis, University of Iowa.
- Kervin, John B. 1974. "Extending Expectation States Theory: A Quantitative Model." *Sociometry* 37:349-62.
- . 1977. "An Information-Combining Model for Expectation States Theory: Derivation and Tests." *Journal of Mathematical Sociology* 5:199-214.
- Markovsky, Barry, Joseph Berger, and Le Roy Smith. 1984. "Do Status Interventions Persist?" *American Sociological Review* 49:373-82.
- Martin, Michael W. and Jane Sell. 1985. "The Effect of Equating Status Characteristics on the Generalization Process." *Social Psychology Quarterly* 48:178-82.
- Pugh, Meredith D. and Ralph Wahrman. 1983. "Neutralizing Sexism in Mixed-Sex Groups: Do Women Have to Be Better Than Men?" *American Journal of Sociology* 88:746-62.
- Ridgeway, Cecilia L. 1991. "The Social Construction of Status Value: Gender and Other Nominal Characteristics." *Social Forces* 70:367-86.
- Ridgeway, Cecilia L., Elizabeth Heger Boyle, Kathy J. Kuipers, and Dawn T. Robinson. 1998. "How Do Status Beliefs Develop? The Role of Resources and Interactional Experience." *American Sociological Review* 63:331-50.
- Robinson, Jerry W., Jr. and James D. Preston. 1976. "Equal-Status Contact Modification of Racial Prejudice: A Reexamination of the Contact Hypothesis." *Social Forces* 54:911-24.
- Seashore, Marjorie. 1968. "The Formation of Performance Expectations for Self and Other in an Incongruent Status Situation." Ph.D. dissertation, Department of Sociology, Stanford University.
- Spencer, Steven J. and Claude M. Steele. 1995. "Under Suspicion of Inability: Stereotype Vulnerability and Women's Math Performance." Department of Psychology, State University of New York at Buffalo. Unpublished manuscript.
- Spencer, Steven J., Claude M. Steele, and Diane M. Quinn. 1999. "Stereotype Threat and Women's Math Performance." *Journal of Experimental Social Psychology* 35:4-28.
- Steele, Claude M. and Joshua Aronson. 1995. "Stereotype Threat and the Intellectual Test Performance of African-Americans." *Journal of Personality and Social Psychology* 69:797-811.
- Wagner, David G. and Joseph Berger. 1993. "Status Characteristic Theory: The Growth of a Program." Pp. 23-63 in *Theoretical Research Programs*, edited by Joseph Berger and Morris Zelditch Jr. Stanford, CA: Stanford University Press.
- Wagner, David G., Rebecca S. Ford and Thomas W. Ford. 1986. "Can Gender Inequalities Be Reduced?" *American Sociological Review* 51:47-61.
- Walker, Henry A. 1999a. "A Program for

- Calculating $P(S)$ in Complex, Asymmetric Status Structures." *Current Research in Social Psychology* 4:113–23, (<http://www.uiowa.edu/~grpproc>).
- . 1999b. "Two Faces of Diversity: Recreating the Stranger Next Door?" Pp. 52–69 in *A Nation Divided: Diversity, Inequality, and Community in American Society*, edited by Phyllis Moen, Donna Dempster-McClain, and Henry A. Walker. Ithaca: Cornell University Press.
- Webster, Murray, Jr. 1977. "Equating Characteristics and Social Interaction: Two Experiments." *Sociometry* 40:41–50.
- Webster, Murray, Jr. and Joseph Berger. 1975. "Equating Characteristics and Social Interaction." Department of Sociology, Stanford University. Unpublished manuscript.
- Webster, Murray, Jr. and James E. Driskell Jr. 1978. "Status Generalization: A Review and Some New Data." *American Sociological Review* 43:220–36.
- . 1983. "Beauty as Status." *American Journal of Sociology* 89:140–65.
- Webster, Murray, Jr. and Stuart J. Hysom. 1998. "Creating Status Beliefs." *American Sociological Review* 63:351–78.
- Zeller, Richard A. and Richard B. Warnecke. 1973. "The Utility of Constructs as Intervening Variables in the Interpretation of Experimental Results." *Sociological Methods and Research* 2:85–110.

Henry A. Walker is Professor of Sociology at the University of Arizona. His current work includes research on race and gender as status characteristics and legitimation processes. Recent publications include "Power, Influence and Legitimacy in Organizations," with Richard Bell and David Willer, and *A Nation Divided* co-edited with Phyllis Moen and Donna Dempster-McClain.

Brent T. Simpson is a Ph.D. student at Cornell University. He is interested in power, status, and collective action. His current research projects include an experimental investigation of cooperation and coalition formation in exchange networks.