

**STRIDE Faculty Recruitment Workshop, May 2007
Articles by Topic**

NOTE: The * indicates that the complete article has been included in this folder. Please contact the UM ADVANCE Project if you would like copies of additional readings.

1. What is the nature of the problem?—General analysis

***Fiske, S. T. (2002).** What we know about bias and intergroup conflict, the problem of the century. *Current Directions in Psychological Science* 11(4): 123-128.

Discusses what psychologists, after years of study, now know about intergroup bias and conflict. It is stated that most people reveal unconscious, subtle biases, which are relatively automatic, cool, indirect, ambiguous, and ambivalent. Subtle biases underlie ordinary discrimination: comfort with one's own in-group, plus exclusion and avoidance of out-groups. Such biases result from internal conflict between cultural ideals and cultural biases. On the other hand, a small minority of people, extremists, do harbor blatant biases that are more conscious, hot, direct, and unambiguous. Blatant biases underlie aggression, including hate crimes. Such biases result from perceived intergroup conflict over economics and values, in a world perceived to be hierarchical and dangerous. Reduction of both subtle and blatant bias results from education, economic opportunity, and constructive intergroup contact. (PsycINFO Database Record (c) 2005 APA, all rights reserved)

Fiske, S. T., Cuddy, A. J. C., Glick, P., & Xu, J. (2002). A model of (often mixed) stereotype content: Competence and warmth respectively follow from status and competition. *Journal of Personality and Social Psychology*, 82(6), 878-902.

This article presents results of research proceeding from the theoretical assumption that status is associated with high ratings of competence, while competition is related to low ratings of warmth. Included in the article are ratings of various ethnic and gender groups as a function of ratings of competence and warmth. These illustrate the average content of the stereotypes held about these groups in terms of the dimensions of competence and warmth, which are often key elements of evaluation.

Katznelson, I. (2006). When Affirmative Action Was White. *Poverty and Race Research Action Council* 15(2).

This article proposes that many federal programs can be best understood as “affirmative action for whites” both because in some cases substantial numbers of other groups were excluded from benefiting from them, or because the primary

beneficiaries were whites. It states the rationale for contemporary affirmative action as “corrective action” for these exclusionary policies and programs.

Padilla, R. V. and Chavez, R. C. (1995). Introduction. *The Leaning Ivory Tower: Latino Professors in American Universities* (pp. 1-16). New York, State University of New York Press.

This book includes 12 contributions from Latino and Latina professors and academics with experience in universities throughout the United States. The introduction provides an overview

Steele, C. M. (1997). A threat in the air: How stereotypes shape the intellectual identities and performance of women and African-Americans. *American Psychologist*, 52, 613-629.

This paper reviews empirical data to show that negative stereotypes about academic abilities of women and African Americans can hamper their achievement on standardized tests. A 'stereotype threat' is a situational threat in which members of these groups can fear being judged or treated stereotypically; for those who identify with the domain to which the stereotype is relevant, this predicament can be self-threatening and impair academic performance. Practices and policies that can reduce stereotype threats are discussed.

***Valian, V. (1998).** Gender schemas at work. *Why So Slow? The Advancement of Women*. Cambridge, Mass.: MIT Press.

This book attempts to uncover the invisible barriers that prevent women from achieving the same professional success as men. Valian's arguments are based on statistical laboratory and field studies and center around gender schemas – our implicit hypotheses about sex differences. Though gender schemas are not entirely inaccurate, Valian argues that schemas alter our ability to evaluate men and women without bias. In general, the schema of a woman is incompatible with the schema of a successful professional. The consequence is that professional women are often underrated, while their male counterparts are overrated. Because of these imbalances, however slight, women accumulate advantage at a slower rate than men.

Tutorials for Change: Gender Schemas and Science Careers (Valian, V. Hunter College of the City University of New York).

<http://www.hunter.cuny.edu/gendertutorial/tutorials.htm>

This Web link provides four tutorials, designed as slides with voice-over narration. The narration will start automatically with each slide. You may stop the narration by clicking on "stop narration".

1a. What does the problem look like in science?

Gannon, F., Quirk, S., & Guest, S. (2001). Are women treated fairly in the EMBO postdoctoral fellowship scheme? *European Molecular Biology Organization Reports* 2, 8, 655–657.

This article presents the findings from an analysis of the European Molecular Biology Organization Long Term Fellowship granting scheme in order to determine if gender bias exists in the program. When the success rate is calculated for the spring and autumn session for the years 1996–2001, the female applicants were, on average, 20% less successful than the males

General Accounting Office (1994). *Peer Review: Reforms Needed to Ensure Fairness in Federal Agency Grant Selection*. 138.

GAO examined grant selection in three federal agencies that use peer review: the National Institutes of Health (NIH), the National Science Foundation (NSF), and the National Endowment for the Humanities (NEH). At each agency, GAO collected administrative files on a sample of grant proposals, approximately half of which had been funded. GAO then surveyed almost 1,400 reviewers of these proposals to obtain information not available from the agencies. In addition, GAO interviewed agency officials and reviewed documents to obtain procedural and policy information. GAO also observed panel meetings at each agency.

Kulis, S., Chong, Y., & Shaw, H. (1999). Discriminatory organizational contexts and black scientists on postsecondary faculties. *Review in Higher Education*, 40(2), 115-148.

This article examines the role of various kinds of institutional discrimination in producing the underrepresentation of black faculty.

Long, J. Scott, ed. (2001). Executive Summary. *From Scarcity to Visibility: Gender Differences in the Careers of Doctoral Scientists and Engineers* (pp.1-8). Washington, D.C.: National Academy Press.

This excerpt provides an overview of differences in the science careers of men and women.

***Mervis, J.** (2005). A Glass Ceiling for Asian Scientists? *Science*, 310, 606-607.

This article documents the low rate of Asian and Asian American scientists at higher and leadership levels even in fields where they are relatively numerous at lower ranks.

Nelson, D. J., & Rogers, D. C. (2004). *A national analysis of diversity in science and engineering faculties at research universities*.

This report looks at the representation of women and minorities in the 'top 50' departments of science and engineering disciplines in research universities, as ranked by the National Science Foundation according to research funds expended. The report is based on survey data obtained from these departments and covers the years 1993 to 2002. The analysis examines degree attainment (BS and PhD) and representation on the faculty in the corresponding disciplines. The data demonstrate that while the representation of women attaining a PhD in science and engineering has significantly increased in this period, the corresponding faculties remain overwhelmingly dominated by white men.

* **Wenneras, C. & Wold, A.** (1997). Nepotism and sexism in peer-review. *Nature*, 387, 341-343.

This study assessed gender differences in ratings applications of postdoctoral fellowships from the Swedish Medical Research Council, as well as predictors of those ratings. Overall female applicants were rated lower than male applicants, and therefore the rate of awards to females was lower than that to males. Using objective criteria of scientific productivity, the researchers found that in fact female applicants had to be 2.5 times more productive than their male counterparts in order to receive the same "competence" ratings from reviewers. Parallel findings were reported for US funding agencies in a 1994 GAO report on *Peer Review: Reforms Needed to Ensure Fairness in Federal Agency Grant Selection*. Related issues have been raised in the recent (2004) GAO report *Gender Issues: Women's Participation in the Sciences has Increased, but Agencies Need to Do More to Ensure Compliance with Title IX*.

2. How does evaluation bias actually operate?

* **Bertrand, M., & Mullainathan S.** (2004). Are Emily and Greg more employable than Lakisha and Jamal? A field experiment on labor market discrimination. *The American Economic Review* 94(4), 991-1013; "Employers' Replies to Racial Names." NBER Website. Thursday, August 31, 2006. <<http://www.nber.org/digest/sep03/w9873.html>>.

Empirical study demonstrating impact of implicit discrimination by race, and not attributable to class.

Bertrand, M., Chugh, D., & Mullainathan, D. (2005). Implicit discrimination. *American Economic Review*, 95(2), 94-98.

Reflective discussion of how and where implicit discrimination operates. Includes useful review of the literature, and fairly extended discussion of research needed.

Biernat, M. & Kobrynowicz, D. (1997). Gender- and race-based standards of competence: Lower minimum standards but higher ability standards for devalued groups. *Journal of Personality and Social Psychology*, 72 (3), 544-557.

Stereotypes may influence judgment via assimilation, such that individual group members are evaluated consistently with stereotypes, or via contrast, such that targets are displaced from the overall group expectation. Two models of judgment—the shifting standards model and status characteristics theory—provide some insight into predicting and interpreting these apparently contradictory effects. In 2 studies involving a simulated applicant-evaluation setting, we predicted and found that participants set lower minimum-competency standards, but higher ability standards, for female than for male and for Black than for White applicants. Thus, although it may be easier for low- than high status group members to meet (low) standards, these same people must work harder to prove that their performance is ability based.

* **Caffrey, M.** (1997, May 12). Blind auditions help women. *Princeton Weekly Bulletin*. Based on **Goldin, C & Rouse, C.** (2000). Orchestrating impartiality: The impact of “blind” auditions on female musicians. *American Economic Review*, 90, 715-741.

A change in the audition procedures of symphony orchestras—adoption of “blind” auditions with a “screen” to conceal the candidate’s identity from the jury—provides a test for gender bias in hiring and advancement. Using data from actual auditions for 8 orchestras over the period when screens were introduced, the authors found that auditions with screens substantially increased the probability that women were advanced (within the orchestra) and that women were hired. These results parallel those found in many studies of the impact of blind review of journal article submissions.

Cole, J. R., & Singer, B. (1991). A theory of limited differences: Explaining the productivity puzzle in science. In H. Zuckerman, J. R. Cole, and J. T. Bruer, (Eds.), *The outer circle: Women in the scientific community.* (277-310). New York: W. W. Norton and Company.

This chapter proposes “a theory of limited differences” where even if the life events to which people are exposed have small short-term effects, over the life course these events have large cumulative effects. The authors suggest that the small disparities at every stage of a woman scientist’s career combine to create a subtle yet virtually unassailable barrier to success.

Heilman, M. E., Wallen, A. S., Fuchs, D., & Tamkins, M. M. (2004). Penalties for Success: Reactions to Women Who Succeed at Male Gender-Typed Tasks. *Journal of Applied Psychology*, 89(3), 416-427.

This study investigated reactions of subjects to a woman's success in a male gender-typed job. The results showed that when women were acknowledged to have been successful, they were less liked and more personally derogated than equivalently successful men. The data also showed that being disliked can affect career outcome, both for performance evaluation and reward allocation.

Martell, R. F. (1996). What Mediates Gender Bias in Work Behavior Ratings? *Sex Roles* 35(3/4): 153-169.

Shows that more effective work behaviors are retrospectively attributed to a fictitious male police officer than a fictitious female one—even though they are rated equivalently at first. Evidence in the study shows that this results from overvaluing male officers' performance rather than derogating females'.

Nosek, B.A., Banaji, M.R., & Greenwald, A.G. (2002). Harvesting implicit group attitudes and beliefs from a demonstration web site. *Group Dynamics: Theory, Research and Practice*, 6, 101-115.

This article demonstrates widely-shared schemas, particularly "implicit" or unconscious ones, about race, age and gender.

Porter, N. & Geis, F. L. (1981). Women and nonverbal leadership cues: When seeing is not believing. In C. Mayo & N. Henley (Eds.), *Gender and nonverbal behavior*. New York: Springer Verlag.

When study participants were asked to identify the leader of the group, they reliably picked the person sitting at the head of the table whether the group was all-male, all-female, or mixed-sex with a male occupying the head; however, when the pictured group was mixed-sex and a woman was at the head of the table, both male and female observers chose a male sitting on the side of the table as the leader half of the time.

***Sommers, S. (2006).** On Racial Diversity and Group Decision Making: Identifying Multiple Effects of Racial Composition on Jury Deliberations. *Journal of Personality and Social Psychology* 90 (4), 597–612.

This research examines the multiple effects of racial diversity on group decision making. Participants deliberated on the trial of a Black defendant as members of racially homogeneous or heterogeneous mock juries. Half of the groups were exposed to pretrial jury selection questions about racism and half were not. Deliberation analyses supported the prediction that diverse groups would exchange a wider range of information than all-White groups. This finding was not wholly attributable to the performance of Black participants, as Whites cited more case facts, made fewer errors, and were more amenable to discussion of racism when in diverse versus all-White groups. Even before discussion, Whites in diverse groups were more lenient toward the Black defendant, demonstrating that the effects of diversity do not occur solely through information exchange. The influence of jury selection questions extended previous findings that blatant racial issues at trial increase leniency toward a Black defendant.

- * **Steinpreis, R.E., Anders, K.A. & Ritzke, D.** (1999). The impact of gender on the review of the curricula vitae of job applicants and tenure candidates: A national empirical study. *Sex Roles*, 41, 7/8, 509-528.

The authors of this study submitted the same c.v. for consideration by academic psychologists, sometimes with a man's name at the top, sometimes with a woman's. In one comparison, applicants for an entry-level faculty position were evaluated. Both men and women were more likely to hire the "male" candidate than the "female" candidate, and rated his qualifications as higher, despite identical credentials. In contrast, men and women were equally likely to recommend tenure for the "male" and "female" candidates (and rated their qualifications equally), though there were signs that they were more tentative in their conclusions about the (identical) "female" candidates for tenure.

- Thompson, M. & Sekaquaptewa, D.** (2002). When being different is detrimental: Solo status and the performance of women and minorities. *Analyses of Social Issues and Public Policy*, 2, 183-203.

This article spells out how the absence of "critical mass" can lead to negative performance outcomes for women and minorities. It addresses the impact on both the actor and the perceiver (evaluator).

- * **Trix, F. & Psenka, C.** (2003). Exploring the color of glass: letters of recommendation for female and male medical faculty. *Discourse & Society* 14(2): 191-220.

This study compares over 300 letters of recommendation for *successful* candidates for medical school faculty position. Letters written for female applicants differed systematically from those written for male applicants in terms of length, in the percentages lacking basic features, in the percentages with "doubt raising" language, and in the frequency of mention of status terms. In addition, the most common possessive phrases for female and male applicants ("her teaching" and "his research") reinforce gender schemas that emphasize women's roles as teachers and students and men's as researchers and professionals.

3. Strategies for reducing the impact of bias on judgments

- * **Bauer, C.C. & Baltes, B.B.** (2002). Reducing the effects of gender stereotypes on performance evaluations. *Sex Roles*, 9/10, 465-476.

This study is one of many showing (1) that people vary in the degree to which they hold certain stereotypes and schemas (2) that having those schemas influences their evaluations of other people; and (3) that it is possible to reduce the impact of commonly-held stereotypes or schemas by relatively simple means. In this study college students with particularly negative stereotypes about women as college professors were more likely to rate accounts of specific incidents of college classroom teaching behavior negatively, if they were described as performed by a female. In the second phase of the study students' reliance on

their stereotypes was successfully reduced by providing them with time and instructions to recall the specific teaching behaviors of the instructors in detail. Thus, focusing attention on specific evidence of an individual's performance eliminated the previously-demonstrated effect of gender schemas on performance ratings.

Chesler, M. A. (1996). Protecting the investment: Understanding and responding to resistance. *The Diversity Factor* 4(3), 2-10.

This article discusses common barriers to successful implementation of diversity-related cultural change efforts, including both those that are intentional and unintentional. It also outlines strategies for addressing or dealing with these various forms of resistance.

Dovidio, J. F. and S. L. Gaertner (2000). "Aversive racism and selection decisions: 1989 and 1999." Psychological Science 11(4): 315-319.

Investigated differences over a 10-yr period in Whites' self-reported racial prejudice and their bias in selection decisions involving Black and White candidates for employment in a sample of 194 undergraduates. The authors examined the hypothesis, derived from the aversive-racism framework, that although overt expressions of prejudice may decline significantly across time, subtle manifestations of bias may persist. Consistent with this hypothesis, self-reported prejudice was lower in 1998-1999 than it was in 1988-1989, and at both time periods, White participants did not discriminate against Black relative to White candidates when the candidates' qualifications were clearly strong or weak, but they did discriminate when the appropriate decision was more ambiguous. Theoretical and practical implications are considered. (PsycINFO Database Record (c) 2005 APA, all rights reserved)

Preston, A. E. (2004). Leaving science: Occupational exit from scientific careers. New York: Russell Sage Foundation.

Based on data from a large national survey of nearly 1,700 people who received university degrees in the natural sciences or engineering and a subsequent in-depth follow-up survey, this book provides a comprehensive portrait of the career trajectories of men and women who have earned science degrees, and addresses the growing number of professionals leaving scientific careers. Preston presents a gendered analysis of the six factors contributing to occupational exit and the consequences of leaving science.

Dual career and work-family issues

* **Boushey, H. (2005).** Are Women Opting Out? Debunking the Myth. Center for Economic and Policy Research. Washington, DC, Center for Economic and Policy Research.

This analysis of the Current Population Survey's Outgoing Rotation Group data, a Bureau of Labor Statistics nationally representative survey, shows that the child penalty on labor force participation for prime-age women, aged 25 to 44, averaged -14.4 percentage points over the period from 1984 to 2004. This means that labor force participation by women in this age group with children at home averaged 14.4 percentage points less than for women without children at home. The penalty was 20.7 percentage points in 1984 and has fallen consistently over the last two decades, down to 8.2 percentage points in 2004.

* **Correll, S., Benard, S., & Paik, I. (2007).** Getting a Job: Is There a Motherhood Penalty? *American Journal of Sociology* 112(5), 1297–1338.

Survey research finds that mothers suffer a substantial wage penalty, although the causal mechanism producing it remains elusive. The authors employed a laboratory experiment to evaluate the hypothesis that status-based discrimination plays an important role and an audit study of actual employers to assess its real-world implications. In both studies, participants evaluated application materials for a pair of same-gender equally qualified job candidates who differed on parental status. The laboratory experiment found that mothers were penalized on a host of measures, including perceived competence and recommended starting salary. Men were not penalized for, and sometimes benefited from, being a parent. The audit study showed that actual employers discriminate against mothers, but not against fathers.

Goldin, C. (2006). Working it out. *The New York Times*.

Op ed piece to counter the news and opinion articles that women, especially graduates of top-tier universities and professional schools, are “opting out” in record numbers and choosing home and family over careers.

* **Kerber, L. K. (2005).** We must make the academic workplace more humane and equitable. *The Chronicle of Higher Education*, 6.

Reflection by an academic historian both on the history of the academic workplace, and the ways in which it is currently an environment that is both inhumane and particularly difficult for women faculty.

McNeil, L., & Sher, M. (1999). “The Dual-Career-Couple Problem.” *Physics Today*. College Park, MD: American Institute of Physics.

Women in science tend to have partners who are also scientists. The same is not true for men. Thus many more women confront the “two-body problem” when searching for jobs. McNeil and Sher give a data overview for women in physics and suggest remedies to help institutions place dual-career couples.

Radcliffe Public Policy Center (2000). *Life's work: Generational attitudes toward work and life integration.*

Reports on the results of a national survey of Americans' attitudes about work and family, economic security, workplace technology, and career development. The majority of young men report that a job schedule that allows for family time is more important than money, power or prestige.

Wolf Wendel, L. E., Twombly, S.B., et al. (2000). "Dual-career couples: keeping them together." *The Journal of Higher Education* 71(3): 291-321.

This article addresses academic couples who face finding two positions that will permit both partners to live in the same geographic region, to address their professional goals, and to meet the day-today needs of running a household which, in many cases, includes caring for children or elderly parents.

For more information, call (734) 647-9359.

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