



Promotion

Tips on Preparing Your Promotion Dossier

Tenure Dossiers: Strategies for Success

Advancement and Promotion at Irvine: A Handbook of Advice for Tenure-Track and Tenured Faculty

Reducing the Effects of Gender Stereotypes on Performance Evaluations Cara C. Bauer and Boris B. Baltes, *Sex Roles*, 47 (9/10):465-476 (2002)

Promotion and Tenure Good and Bad Practices

Observations from Matt O'Donnell, Frank & Julie Jungers Dean of Engineering, University of Washington

Quick Start Guide to Tenure and Promotion

Marshall University (MU) Advance

Ten(+) Tips for Tenure

Suzanne Ostrand-Rosenberg and D. Timmie Topoleski, University of Maryland Baltimore County ADVANCE

Why So Slow? The Advancement of Women

Virginia Valian, The MIT Press

Tips on Preparing Your Promotion Dossier

- Preparing yourself for promotion
 - Start building your dossier early and update it regularly. Review the current call letter from the Provost's website annually. Gather copies of your employment letter, departmental and/or divisional requirements, annual reviews, reviews of teaching, awards, etc. It is easier to exclude something you don't need than to include something you don't have.
 - Be aware of department and divisional expectations. They are used at all levels of review.
 - Keep your resume or CV current.
 - Examine your progress regularly—paying special attention to your evaluations. Are you on track? Are corrections necessary/desirable? Have you responded to your annual reviews?
 - Increase and maintain your visibility in your field and develop outside contacts. (These will be very helpful when it comes to getting strong outside evaluation letters).
 - Nurture your professional associations and work to establish a national/international reputation within your field. Seek positions of responsibility, participate in conference/workshop planning, Research Review boards, etc. Focus on your strengths, look for opportunity and don't spread yourself too thin. Your reputation also is influenced by those you publish with.
 - Your teaching is important. While good teaching alone will not earn you promotion at MU, unacceptable teaching may very well impede, if not prevent it. Teaching is used in the broad sense here and includes advising and graduate student mentoring.
 - Seek mentoring both within and outside your professional area. Seek the advice of others and network with colleagues in your department, division, across campus and in your professional organization.

• Preparing the materials

- Be well organized.
- o Do not procrastinate.
- Follow directions. Check the Provost Office call document annually for changes in instructions. Include everything asked for in guidelines in the format specified. Don't make committees dig and try to provide their own interpretations.
- Err in the direction of providing more information than is necessary. It's easy to "miss" important contributions sometimes due to the way they are presented.

• Discussing your work and accomplishments

- Never assume your accomplishments are obvious to others.
- Update significant new accomplishments and take time to elaborate the significance of accomplishments.
- Provide detail to support your unique contributions.
- Subdivide publications into types of works with separate headings (e.g., archival articles, book chapters, notes, letters, conference proceedings, etc.)
- Know your strengths and make sure that they are emphasized in your vita and list all of them completely. Don't leave anything out for people to infer. If your strengths are rather unusual in your field, your department may not even be aware of them or think of them as strengths unless you put them in your vita.
- Provide as much context as needed for others to appreciate your contributions. For example, if getting a paper into a specific conference, or writing a "Standard" is a major accomplishment, provide documentation so that committees can properly judge the worth.
- Be accurate (do not exaggerate or mislead).
- Don't give short shrift to your work-in-progress and where it fits in your future research agenda. The Committee wants to see evidence that you will continue to maintain high research productivity after promotion.
- Emphasize professional service activities and awards that reflect your national and/or international reputation within your discipline.

• Try to make sure your dossier manifests institutional service at all relevant levels: department, college, and campus.

• Understanding the process

- Remember that the final decision is not made at the department, college/school, dean or the campus committee levels. So, a "no" vote at one level does not mean the process is finished. If you feel you have a case, you should persevere.
- Don't quit on yourself. If you receive significant negative votes or recommendations at any level, ask why and seek a personal reconsideration to address the reasons provided. Focus only on the concerns raised. At the reconsideration distribute information supporting your position on these concerns. Even if the results remain negative following your reconsideration, add the materials presented to your dossier so they can be viewed at levels above.
- Votes and recommendations at each level are considered independently and all are advisory to the Chancellor who makes the ultimate decision.
- Who we hire, who we promote, and who we retain determines who we are and the future of our academy.

Workshop 10/09

Tenure Dossiers: Strategies for Success

A Panel Discussion on November 11, 2008*

Tenure as a Process

• Tenure is a process, not an event.

It starts the day you come to campus, and you have to be proactive in this process. Each pretenure faculty member should take a look at a tenure file to see how a successful file is put together, what documentation is needed, and how to write convincing statements. Some departments share such tenure files with new faculty. If your department does not, ask someone who has recently gotten tenure to read theirs.

• Know what your rights are when you go into the tenure process.

Find out as much as you can about what counts, what is expected. Don't accept the first answer you get—ask many people and triangulate. Find out what recently tenured people did. Do not stop there, but keep asking questions along the way.

• Ensure that you get an annual review with your chair.

Some departments do this as a matter of course. If you are not in a department with such traditions, ask the chair to meet with you over your dossier.

- Prepare your dossier for each annual review—it should be an evolving tenure file that grows over the five years you have before tenure.
- Try to get a written record of your annual review from your chair so that you have something to work on. If the chair writes a "fluff" piece, try to get him or her to fill in specifically what you need to do to improve.
- Make sure that you get good information after your 3rd year review, preferably in writing. Chairs should be working to make 3rd year review letters more meaningful—the letter should show any weaknesses during the review so that you can work on it before tenure time.
 - If your chair said "everything is fine" that's not enough. Find ways to get additional information from your chair so that you can fix anything that came up in the conversation about your dossier.
 - If there are not concrete suggestions for you in the 3rd year review, take it with a grain of salt—it may be a puff piece because people have a hard time giving negative reviews. A good 3 year review is not a guarantee there will be no problems at tenure time. Ensure that you get accurate information regardless of the letter the chair writes.

Framing your Tenure Dossier

• Frame your statements and your dossier for two different constituencies:

- Your faculty in your department or division and other faculty in other departments if you do collaborative or interdisciplinary work.
- External people who will write your letters. Ten to fifteen people from your discipline
 nationally will be asked to write letters in your support. These are considered your
 external peer group. Make sure such people know your work, present at conferences
 they go to, send your papers and grant applications to them for informal review. They
 need to know you as a scholar BEFORE they are asked for letters for your tenure file.

• Understand the diversity of audiences for your dossier

You're not just talking to external reviewers but also to your colleagues and those who will be on the ad hoc committee and those on FACTA who don't know your field. Going into the nittygritty of your research in detail won't make arguments with these people.

- Your statements should convince external people in your field that you know what you are talking about. But understand that many people who are not directly in your sub-discipline will read and evaluate your dossier. They need to be able to understand why your work is important to the field, how it advances knowledge in your field. They will not be able to understand the technical details of your work, and will not appreciate being forced to read about them.
- Have several people read your file before you submit. Make sure some are from your field and some are not. Listen closely to their experience of reading your file and their advice. You are aiming at creating a dossier that everyone can read and appreciate.

• Do not neglect your teaching portfolio

The teaching portfolio is important! Build it with care, as much care as with your portfolio on research. Many junior faculty don't see the importance of this because they have heard they must concentrate on their research. A strong research record is essential. However, a teaching record that shows you care about teaching well and that you've worked at it is also important.

- Show the changes you have made to your syllabi over 5 years to document change and evolution. Keep all your teaching evaluations and show how you've responded to them. Keep examples of student papers and projects as examples of what you inspire students to achieve.
- If you have a challenge in teaching—a course that is not working well, seek help with it and document what you have done to improve. Working toward improvement looks good in your files. Describe: What did you do to work on the problem? The Center for Excellence in Teaching and Weiss Fellows are resources for advice on your teaching.
- At Cornell half the teaching is below average—so how can you show your commitment to your students? You may not be the best teacher at Cornell, but it is important to show what you have done to improve, what shows your commitment.

What can go wrong

Do not wait too long to publish (even if you're working on earth-shaking discoveries)
 In the sciences, negative decisions on a tenure case are often made because the candidate waited too long to submit the work he or she has done <u>at Cornell</u> for publication. Twenty publications from your postdoc toral fellowship don't guarantee a positive decision. Reviewers are looking for what you did <u>here.</u> They will look for evidence that you have become independent of your advisors and have your own research direction. A big flurry of submissions right before tenure review sends a red flag to the committee—it doesn't show commitment to scientific work and looks like you're only submitting articles because you want tenure.

• Don't view tenure as a terminal event

To the institution, the act of giving tenure is based on the promise of future productivity. The candidate who regards the tenure process as a terminal event is making a big mistake! You need to map out where your research is going into the future, how you have started down a longer, productive path, what you will bring to your discipline and your institution in the future.

• Submit high quality work

In disciplines where a book is the coin of the realm, a manuscript that is not published and still has errors in it is a problem. Make sure to submit writing that is of high quality, even if it is not published yet (for example, if it has been accepted, but is not out). Do not submit preliminary work that can reflect badly on you.

• Use the tenure clock, not your grants as a timeline

Often, the grant cycle is problematic for junior faculty. If an enterprising young faculty member submits a proposal in first year for a large, 5 year grant, and gets the grant, the temptation is to use the grant deadlines as the criterion for when to publish results—as if one needs results only for the next grant. But the real clock is the 6 year tenure clock: you need to have papers out well before the 5th year when you submit your tenure file.

Understand the tenure clock

People hired in midyear get confused about the tenure clock. Be aware that you do <u>not</u> get the whole additional summer to get papers out! Your tenure clock begins when you reach campus, even if it is at an unusual time compared to your peers.

• Make sure your dept does not set you up to fail

For example, not teaching any large classes may be viewed as 'protecting' the faculty member. But it gives you no record of teaching undergraduates. You need the portfolio to document <u>your</u> work. Team teaching with a famous colleague does not help you: you don't want to be someone else's grader. You need to run your own classes and get students to know you. Be aware that your dept might give you bad advice.

Be careful of changing expectations

When an appointment of a faculty member changes in the course of the 5 years pre-tenure, or an out of the ordinary research leave is given, expectations are that in a semester when you're not teaching you will produce more in research. Changes made at the department level, even when they look like they are helping you, are not always in your best interest. Check out possible consequences at tenure of any changes to your initial contract.

• Be proactive if your dept culture is not supportive

It's like going to doctor—get second opinions! Get feedback on things you need to know about. Ask questions. Do this aggressively and nicely.

General tips for success (to work on all along the way!)

• Be able to identify your own strengths and weaknesses.

Have a clear vision of who you are, what kind of researcher and teacher you are. Try to work on your weaknesses and be able to put yourself into an appropriate context regarding both strengths and weaknesses. Failed cases often result from candidates who have unrealistic expectations—they thought they were better than they were, or they started a much bigger project than was possible to accomplish within the 5 year tenure clock.

- Know who you are and what will be the field that you represent when you come up for tenure. Brand yourself, define yourself for your colleagues, have a 'tag line' or 'elevator speech' that describes what you do. Discuss with your chair and colleagues about how your contribution to the discipline will be defined at tenure.
- Take one day a year: turn off the telephone, shut off the computer. And think about who you are, where you are going, and how you are going to get there. Write it down.

• Be collegial

You can't just do your own stuff by yourself in your office or your lab—you have to get out and about in the department and the university so that you understand how the university works. You need to know more than just how tenure works.

Cultures within departments are remarkably different from one another and you need a view outside of your department in order to understand the university as a whole.
 Some departments have no formal or even informal mentoring, others are very intentional about these processes. Appreciate the culture in your department and understand that it's not the same everywhere. Understanding your departmental traditions and climate can even help you to work to make your department culture more appropriate.

• Understand that timing is everything

Tenure packages go in at end of 5 years, which is not a lot of time in a scientific research life.

- Focus in part on research projects that will produce results within 5 year time frame. Do
 not abandon the important long-term projects, but make sure there is something to
 show at tenure time.
- Listen to advice early enough so that you have time to change direction should that be necessary.
- Don't go up for tenure early—use the entire time you have to get tenure. This will help you to establish a strong record and make it more likely to succeed. Realize that if you go up early and do not get it, even if you then get it at the 'normal' time afterwards, your relationship with your colleagues can be damaged. It is not necessary to put yourself through such distress when you could simply be creating an excellent record for your only tenure bid.

• Cultivate people—at Cornell and externally.

- Find ways to educate the senior faculty about your case (departments that do annual reviews of junior faculty understand more but you need to cultivate the senior faculty yourself in addition).
- Cultivate external faculty: external writers' CVs are put into your portfolio so that reviewers can understand their relationship t o your work. Make sure you know the important people in your field: get invited to give talks, go to conferences, meet the important people and make sure they know who you are. Go to dinner with prominent guests that come to your department to get to know them. Make sure you have been invited to give talks at conferences and other universities. If necessary, invite yourself.
- Make your grad students feel that you are supportive to them, and are helping them in their careers. Make sure they know where you are in the tenure process. Positive comments from grad students go a long way. Middle of the road comments do not help you.
- Make sure your colleagues internally and externally understand your research at the level that they can articulate the importance of your research. Saying you're the greatest is not helpful. Saying that your work is essential for making progress in this field and how it does that is important. Make sure people understand what you are doing and that you are engaged in your department, so those not in your discipline are engaged with you in the issues of importance to you.
- Separate yourself from your advisor and your postdoctoral associates. You need to be able to make the argument that you are prepared for a career of leadership and service.
- Be known in your community: be nationally recognized, go to national meetings, beg to be invited to give talks if that is what it takes, be assertive.
- Make sure you have PhD students close to graduation at tenure time

• Do the right amount of service

- Don't show hostility to service. Just do some of it and know you'll be asked to do more after tenure.
- Women often get buried under service which doesn't leave enough time for research. The trick is to find the sweet spot between being a good citizen and colleague, and not doing more than male colleagues are doing. Talk with your chair about standard expectations—do what is expected and no more.
- You'll be asked to do very different service things. Don't do the ones that just need a woman on the project. Do the ones with an intellectual, scientific component where you'll learn what others on campus do. Choose service that is of interest or strategic value to what you do. Organize a visiting speaker series (gets you to know important people and how the university works) and sit on search committees to connect with colleagues on important issues.

• Deal effectively with leaves

- You have legal rights to parental leave and you should know what they are and ensure that the people around you know what they are. Keep your lab and your research going when on parental leave. Make sure you discuss with your chair how much time you're taking, what arrangements there will be for classes, how this affects your tenure clock. Make sure external people understand your situation. They may not know your situation and not understand what looks like 'extra time' you got toward tenure. Your statements in your dossier and your CV are entirely under your control—this may be where you can address any 'extra' time taken. Ensure that the chair mentions it in his letter of invitation to your external reviewers and in the letter he writes for review at the college and university level.
- Research leaves are not paid for by Cornell—you would have to get your salary from another source. If you are applying for a research leave pre-tenure, talk to your chair and understand what the possible ramifications might be. How will they deal with the fact that you will be away and not teaching? What effect will this have on your tenure? Choose such a leave carefully—it needs to be in line with your intellectual development and "count" toward tenure in some way.
- If taking an anomalous leave, offer to double up on teaching another semester. This will take any rivalry or resentment out of the 'special' relief you have gotten.
- Medical reasons can result in teaching relief. Make sure you document everything—a medical leave shows up as if you didn't teach enough during the time toward tenure. It looks to those who do not understand your situation as if you were 100 percent research for a time. Such anomalies make it hard for FACTA to evaluate your dossier. Be clear about what happened, so the medical leave does not raise research expectations unreasonably.
- Keep asking your chair and committee within the department for advice on leaves and how to communicate about them. Decide if it is advantageous for others to know that you didn't have as much time as someone else to get work done.

Questions asked at the session

- Q: what is the process for my tenure document?
 - You put your tenure dossier together, including research and teaching statements, an overall statement and documents supporting your case in teaching, research, service You will already have seen others' dossiers so you understand the structure. You prepare this early enough that others can read it before you submit
 - You will submit a list of external reviewers who could fairly evaluate your case. The chair will have his or her own list and the final list of external reviewers is usually a mixture of the two lists
 - The department discusses your case and puts the case together for your tenure to be sent up
 - The chair writes a letter discussing the department's case, and sends it to the assistant or associate dean in charge of tenure cases for the college
 - o The chair writes letters to the external reviewers to ask them for letters
 - The assistant/associate dean writes a letter discussing the case
 - The case goes forward to an ad hoc committee within the college which writes a recommendation on a course of action
 - The case goes to FACTA, which is the university-wide advisory committee to the Provost on tenure and promotion decisions. FACTA recommends a course of action on the case
 - The Provost adds his or her decision, after reviewing FACTA's documents
 - o The case goes to the President, and finally to the Board of Trustees
 - Your tenure is official when the Board of Trustees has approved it
- **Q.** If you get a tenure clock stop for a child, do you get compared to those you came in with? NO.
- Q. If I am serving on PhD committees, not as chair but just on the committee: Can I say no to such assignments? Where do I get credit for that?
 - o In some colleges that is not considered service, it's considered graduate teaching.
 - Yes, you <u>should</u> be able to say no. Make sure you know what other assistant professors are being asked to do. If you're being asked to do more than others, then it's a good idea to say no, even if it feels awkward.
 - Find out what the average is and use it as a rule. Set a number based on the average among your peers and do that. Then this is not an arbitrary decision on your part, because you can your rule and it has a justification for it built in.

• Q. What happens if, due to historical anomalies, others automatically got leaves I didn't, and then I got it at a later time. It looks like a special leave, but it is not more time than my peers got. Will this make a difference?

No, it is the flow of things over the 5 years of the tenure clock that will be taken into account. Such temporal anomalies are easy to understand if they do not add up to unusual amounts during your tenure period.

- Q. What happens if the review process for an article is unusually long in my field—over a year long? In my case, after 10 months I had to withdraw an article in the hopes of finding a faster way to publish. Will the college and university take this into account?
 If it takes over a year for an article, and all 5 years you have been submitting and you can demonstrate that you have things in the pipeline all along the way, you should be ok. It's the flow that is important. Also, if this is a disciplinary issue (as in social sciences) your peers will understand this as a common problem. Also understand that all the papers you write and put into your dossier will get read.
- Q. I am going up for tenure early, in my 4th year. Is there anything I should be aware of?
 Asking for tenure early is risky, don't do it if you can help it. Math, physics and astronomy do
 this more than other disciplines so it may be more accepted there, but if you can avoid it, don't
 go up early. Discuss with the department chair what the best thing to do is in terms of when to
 come up. If it's in the appointment letter that you will come up early, then coming up before the
 6th year is not considered early. But it is still risky because there has to be enough evidence that
 you have good research and teaching at Cornell, and PhD students at Cornell that you are able
 to graduate.
- *Q. When is it a good time to stop the clock for maternity leave? If I stop it now, can I make my decision retroactive later? Will making it retroactive look like I'm taking tenure "early"?* Do it now so that you have the choice of taking extra time later. When you are pregnant, you do not know what it will be like throughout the pregnancy or when the baby has arrived. You may not 'lose' research and teaching time, or you may. It makes sense to stop the clock right away, and discuss how this will be handled in the department with your chair. Remember that it is your right to take parental leave and stop the clock. If you decide later on that you do not need the extra time after all, it's not the same as going up early if you still go up for tenure in the 6th year as had been previously scheduled when you were hired.

• Q :what about cases where there is little teaching in the job description, but lots of extension or service or outreach?

The Department chair will write a letter explaining your tenure case, the assistant dean will write a letter, the ad hoc committee will write a letter—each of those should include what your agreed-upon load is. You, your chair and your colleagues should know what the expectations are and how you met them. For example, if your load includes seeing animal patients in the vet school, be proactive about documenting how many clients you saw. Describe what the outreach

was that you performed, document and justify that whole area of your work. How many hours you spent, how many patients you saw, where you worked collaboratively or in the community.

• Q: what does collegial mean? Making yourself known or does it also include collaboration? How is collaboration seen in tenure evaluation? Or do I not collaborate at all?

There is much discussion about this in tenure meetings amongst faculty. There are three possible cases, only one of which is really good.

- 1. You have published only co-authored articles with people from your dissertation committee—that's bad! This does not show that you have become a researcher and scholar in your own right.
- 2. You have only single authored papers—depending on the discipline, this is not as bad but also not good! Especially in the sciences where collaboration is expected and the norm.
- 3. In between—are you independent researcher (some single-authored papers)? Are you collaborative—do you work with peers on important questions? What was your contribution in the co-authored papers? Independence plus collaboration is best. Different disciplines have different rules for this. Inform yourself about your discipline.

One way to collaborate/be collegial with your departmental peers is to ask them to read your papers and comment on them. They don't have to be actual research collaborators, but they can give good advice. Collegiality = being known and understood by your colleagues. Being off in a room by yourself for 5 years won't get that done.

- *Q. How do I make clear what my contribution was in my various collaborations?* Use your research statements to describe your role in the research. Make it clear what you have contributed.
- **Q:** Does it make sense to get a letter from a collaborator on my role and contribution? A collaborator could be an external referee, but the request comes from the chair, not from the candidate. The department asks people to write letters, not the candidate. Usually the candidate submits a list of names and the department comes up with its own set of lists and then a combined list is drawn up from those sources. It's considered bad form for you to contact an external person. You could, in putting the list together ask an external person if it's ok to put them on the list? But that is not Cornell procedure—it's different at other universities.
- Q: can I put co-authors on the list for external referees?
 If some collaborators are on the list, that's fine, but your list should not be entirely such people.
 There should also be 'disinterested' people on your list or it will not be taken seriously.

*Panelists included:

Martha Haynes is Professor in Astronomy and has served on FACTA, (the Provost's advisory committee on tenure and promotion decisions). Each year, FACTA reviews 20-30 tenure dossiers. Martha has also served on ad hoc tenure committees in the College of Arts and Sciences.

Paul Kintner is Professor in Electrical and Computer Engineering and has served on FACTA.

Rick Harrison is Chair of Ecology and Evolutionary Biology, a department split between CALS and Arts and Sciences. He has served on FACTA and on 3 appeals committees for faculty who were denied tenure.

Rosemary Avery is Chair of Policy Analysis and Management, an interdisciplinary department. She has acted as chair for 12 years and put through 14-15 tenure files. Rosemary has also served on FACTA where she reviewed 20-30 more tenure files with recommendations to the Provost.

Elizabeth Adkins-Regan is Chair of Psychology and has also acted as Associate Dean in the College of Arts and Sciences, with primary responsibility for decisions on tenure reviews in all fields in the College.

ADVANCEMENT AND

PROMOTION

AT IRVINE

A Handbook of Advice for Tenure-Track and Tenured Faculty

Published by the

OFFICE OF ACADEMIC PERSONNEL UNIVERSITY OF CALIFORNIA, IRVINE

2007

2 • Advancement and Promotion at Irvine

ACKNOWLEDGMENTS

Advancement and Promotion at Irvine is presented by the Committee on Affirmative Action of the Irvine Division of the Academic Senate and the Office of Equal Opportunity and Diversity, University of California, Irvine.

The 1986 and 1990 editions were prepared by Carla R. Espinoza, Assistant Vice Chancellor, Affirmative Action/Equal Opportunity, with special contributions by Professor Patricia A. O'Brien, Department of History.

The 1995 edition was prepared by Marion E. Timm, Assistant Executive Vice Chancellor, Affirmative Action/Equal Opportunity, with special editorial contributions by Professor Karen Leonard, Departments of Anthropology and Social Sciences; Professor Lyman W. Porter, Faculty Assistant to the Executive Vice Chancellor, Academic Affairs; and the Office of Academic Personnel.

This 2005 revised and updated edition was prepared by Herb Killackey, Associate Executive Vice Chancellor, Academic Affairs, and the Office of Academic Personnel with special editorial contributions by the ADVANCE Equity Advisors. The role of Becky Baugh is especially appreciated.

Design and production by the University Editor's Office, Academic Affairs. Illustrations by Jim M'Guinness, from *Advancement and Promotion at UCSF* (1988).

TABLE OF CONTENTS

PART I -- ADVICE FOR TENURE-TRACK FACULTY, 11

A. THE TENURE PROCESS, 11

Tenure Process, 11

Midcareer Appraisal, 12

Tenure Review, 13

- 1. Departmental Review, 13
- 2. What to Submit for Your Tenure File, 14
 - a. Your Self-Statement, 14
 - b. Documents for Your Department, 15
 - c. Documents for Outside Reviewers, 15
- 3. If You Have Problems with the Departmental Review, 16
 - a. Your Department Chair, 17
 - b. Your Dean, 18
 - c. Council on Academic Personnel, 19

Optional Campus Ad Hoc Review Committee, 19

d. Executive Vice Chancellor and Chancellor, 20

Access to Your Review File, 22

Can the Final Decision Be Appealed?, 22

B. RESEARCH AND PROFESSIONAL DEVELOPMENT, 22

- Making Research a Priority, 22
- Developing a Scholarly Program, 24

Extramural Funding, 25

Preparing for Publication, 26

Building Relationships: Increasing Your Visibility as a Scholar, 28

Within Your Department, 28

Within the Campus Community, 29

Within a National and International Network of Colleagues, 29

C. KEEPING RECORDS ABOUT YOUR ACCOMPLISHMENTS, 31

Research and Professional Recognition, 31

Drafts and Publications, 32

Teaching, 32

- 1. What and Whom You Teach, 32
- 2. The Quality of Your Teaching, 33
- 3. Curriculum and Course Development, 35
- 4. Theses and Orals Committees, 35
- 5. Textbooks, 35

Service, 36

D. SOURCES OF HELP, 36

Official Rules and Regulations, 36 People, 37 Administrative Offices, 38 Remember Your Supporters, 38

E. FOSTERING THE DEVELOPMENT OF JUNIOR FACULTY - ADVICE TO DEPARTMENT CHAIRS AND OTHERS, 39

Initial Counseling, 39

Mentors and Continued Advising, 39

Advice on Obtaining Grants and Awards, 40

Using the Midcareer Appraisal Constructively, 41

Advisors Beyond the Department, 41

Counseling Faculty Through Difficult Reviews, 41

PART II -- ADVICE FOR TENURED FACULTY, 43

A. MERITS AND PROMOTIONS, 43

Post-Tenure Review, 43 Associate Professor Rank, 43 Full Professor Rank, 45 Career Equity Reviews, 45

B. RESEARCH AND PROFESSIONAL GROWTH, 45

Keeping Research a Priority, 45 Administrative Service - Pros and Cons, 46 Developing a National and International Reputation, 47

C. FOSTERING THE DEVELOPMENT OF MID-CAREER TENURED FACULTY ADVICE TO DEPARTMENT CHAIRS AND OTHERS, 47

Recognizing Faculty Achievements, 47 Maintaining Salary and Resource Equity, 48 Continued Advising, 48 Developing Leadership within the Department, 48

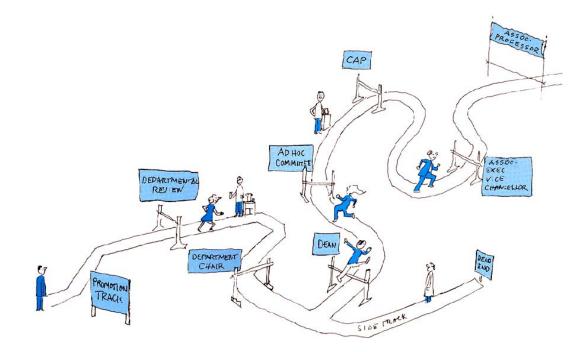
PART III -- SPECIAL ISSUES FACING WOMEN AND MINORITY FACULTY, 49

Role Models, 50 Extra Professional Demands, 50 Differential Treatment, 51 Geographical Constraints Affecting Women, 52 Childrearing vs. Career Needs, 53 Language and Other Differences, 54 The Need for Further Change, 54

PREFACE

This handbook describes the process of faculty advancement and promotion at the University of California, Irvine, and is intended to highlight more informally than the *Academic Personnel Manual* key aspects of procedures. It includes summaries of University policies and provides advice about strategies for advancement and promotion.

Part I consists of five sections which give advice to assistant professors on the following topics: (1) the tenure review process, (2) professional development tasks critical for tenure preparation, (3) record-keeping about accomplishments, (4) whom to go to for help, and (5) advice to chairs and others about mentoring junior faculty. Part II consists of advice for associate professors on the following topics: (1) merits and promotions, (2) research and professional growth, and (3) advice to chairs and other about supporting the career development of tenured faculty. Part III discusses constraints faced by women and minority faculty members.



PART I

ADVICE FOR TENURE-TRACK FACULTY

A. THE TENURE PROCESS

Tenure Process

The tenure process actually begins at the time of your initial hiring as an assistant professor. Your carefully reviewed and approved appointment reflects a judgment that, in principle, you are tenurable at some point in the future. Since continued employment, merit increases, and promotions depend on your performance, it is important to know the expectations of you that are held by your department and the University. The University's policies and procedures relating to the professor series can be found in Section 220 of the *Academic Personnel Manual* (APM), which is available online at

www.ucop.edu/acadadv/acadpers/apm/welcome.html. Policies and procedures specific to the Irvine campus can be found in the *UCI Academic Personnel Procedures Manual* (APP), available at www.ap.uci.edu. In addition to reading the policies that apply to all faculty, you should talk to the chair of your department and to your colleagues about the expectations for achieving promotion to tenure in your academic discipline.

As an assistant professor, you will be reviewed every two years for reappointment and merit (or step) increases. You should be aware of the possibility that your appointment could be terminated at any one of these two-year reviews. However, you cannot be terminated without a review. If you are reappointed *without* a merit increase, take this very seriously. It is an indication that you need to improve. Find out what areas your department review committee considers to need improvement and then work on them. These problem areas should be carefully enunciated by the department - if not, ask for specifics.

Normally, you will be reviewed for tenure in your sixth year; however, you may ask to be reviewed sooner, if you feel you are ready for promotion due to previous academic positions or accelerated progress. You also may request postponement of your tenure review to the seventh year if you have significant work in progress that will be completed within a year but not in time to be included in a sixth-year review. The schedule for your tenure review also may be altered in the event that you request a delay due to childbirth/childcare. See APP 3-50 for details.

Midcareer Appraisal

A critical review point prior to the actual tenure review is the midcareer appraisal, which normally occurs in your third or fourth year of appointment. It typically coincides with a review for a merit increase. These two reviews are separate but overlapping: the merit review covers new work done since your last merit increase, while the midcareer appraisal is an evaluation of your entire career at UCI and its promise. The purpose of the midcareer appraisal is to help you and your department identify strengths and weaknesses before it is too late to improve the record. In a few cases, the outcome of a midcareer appraisal may be non-reappointment, but more typically the candidate is reappointed with advice about facets of performance that need improvement. If weaknesses are identified, you should use this occasion to determine what the causes are, and how they can best be addressed prior to the tenure review. Overall, the midcareer appraisal provides a good chance for the department to get to know your record, and it can provide a constructive point of departure for collegial conversations you may not have had before.

It is important to put the midcareer appraisal in perspective. Sometimes, early productivity will have slowed down, and the midcareer review may be an opportunity to alert your department to circumstances that may have temporarily inhibited your productivity. A less-than-positive "midcareer" appraisal (after essentially only two or three years of new work and so early in one's career) can be daunting. However, the midcareer appraisal gives you information about specific strengths and weaknesses that you can work to address in the time that remains, thereby giving you the opportunity to improve your overall record by the tenure review.

Tenure Review

There are five levels of faculty peers and faculty administrators who will review your case for promotion to tenure, in the following order:

- Your department
- Your department chair
- Your dean
- The Council on Academic Personnel (CAP) and an optional campus Ad Hoc Review Committee
- The Executive Vice Chancellor and Provost, and the Chancellor
- 1. Departmental Review

The first and most important level of review is your department. Departments have a strong voice in academic personnel decisions.

Your promotion -- like your initial appointment, your midcareer appraisal, and your merit increases -depends not only on decisions made within your department, but on the presentation of your work that the department chooses to send forward for review at higher levels. Your department discusses your review file, votes on a recommendation, and prepares a department report that sets out your case for subsequent review levels. While the department is charged with writing an analytical report that reflects the critical judgment of your case, it selects information; it emphasizes; and it uses rhetoric that can have an impact on the eventual outcome. Departments have a strong voice in academic personnel decisions.



The departmental review can involve an assessment by a committee in your department that evaluates and reports on your work. Usually, the report is discussed (without you present) by voting members of the department, followed by possible modifications to the report, and a subsequent vote. Tenured faculty in your department have the right to vote on promotions, and some departments extend this vote to untenured faculty as well (Senate Bylaw 55). The vote is reported in your file and is forwarded with the departmental letter to subsequent reviewers.

2. What to Submit for Your Tenure File

There is a strict schedule for submission of personnel recommendations to the administration for review. Therefore, you must submit your own materials on time. It is important to determine who (you or support staff) gives the materials you prepare to your departmental review committee. Be sure to check that all the materials you prepare for the committee, and for the outside reviewers, go forward.

a. Your Self-Statement

The self-statement is a carefully developed statement of your research and publication record, awards and honors, teaching, professional and administrative activities, and University and public service activities (listed here in their approximate order of importance in your tenure review). This document may be an important part of the tenure process in your department. It is an opportunity for you to analyze and describe the progression of your research, emphasize its unique contributions to your particular field, and highlight future directions.

Not all departments require faculty to provide self-statements, but you may submit a self-statement as part of your dossier, whether or not your chair requests it. Given that the criteria for evaluation vary somewhat from department to department, you should discuss these criteria with friendly mentors or advisors early on in your career. Then you will know where you should be publishing, as well as the realistic weighting of the various formal criteria as they are used in your department. This knowledge will help you present your work.

b. Documents for Your Department

For your tenure review by the department, you should submit the following: names of outside referees who have stature in your field and who you believe to be well qualified to evaluate your work; an updated *curriculum vitae*; a description of your research, teaching, professional activities, and service in as much detail as possible; and a complete set of work you would like to have evaluated, covering your entire career. You may also wish to include a Teaching Portfolio, consisting of, among other things, a description of your philosophy of teaching, instructional innovations, and your contributions to the teaching culture in general. See the Academic Senate Website (www.senate.uci.edu) for more information on Teaching Portfolios.

Your department will ask you to complete two forms: the *Biography for Academic Personnel* (Form UCI-AP-9) and the *Addendum to the Biography* (Form UCI AP-10). The *Addendum* outlines the activities (teaching, research and creative activity, professional competence and activity, and committee and administrative service) that reviewers expect to see documented in the file and provides space for you to list these activities for the review period. For normal reviews, the *Addendum* should cover activities only since the last review. However, for promotion to tenure, the *Addendum* should document activities since your appointment as an assistant professor. You can find the *Addendum* form online at www.ap.uci.edu.

The Council on Academic Personnel (CAP) considers that a carefully prepared, accurate *Addendum* is crucial to the review process. CAP finds that poorly prepared, inaccurate *Addendum* forms require additional effort at higher levels of review - often resulting in requests for clarification being sent back to the department - and can detract from your case.

c. Documents for Outside Reviewers

For the outside reviewers, you should prepare packets of your work, including an updated *curriculum vitae* and a statement of your research development and directions. In contrast to the *Addendum*, the format and items in your *curriculum vitae* are your choice. Your chair should forward the packets to outside reviewers along with a letter requesting an evaluation of your work. It is vitally important that the outside reviewers have at hand copies of your work to facilitate their evaluation. You should check that these packets are complete and up-to-date, and that they are actually sent along with the solicitation letters. A good chair informs outside reviewers that the University is seeking comparative assessments and makes sure that reviewers will receive comprehensive documentation of your work. You may also submit names to the chair of persons you believe would be appropriate or inappropriate evaluators. In cases where you believe someone would be inappropriate, give a reason. Departments will most likely avoid contacting reviewers you believe to be inappropriate; however, those reviewers are not automatically disqualified.

In suggesting referees, remember that faculty peers and administrators involved in the tenure review will want evaluations from **persons with expertise in your field but who are not closely identified with you**. For example, former mentors and former or present collaborators may not be regarded as objective evaluators. The department will pick outside evaluators both from your list of suggested referees and from their own, independently generated list. Because the identity of the letter writers is strictly confidential, you will not be told which letter writers were selected.

After the external letters have been received and before the departmental recommendation is determined, you should have the opportunity to request redacted copies of letters from outside reviewers. You may want to provide a written statement in response to the letters; your response(s) will be included in your review file.

3. If You Have Problems with the Departmental Review

Before your case leaves the department, you may request a copy of the department letter disclosing the vote and opinion of the faculty. If, after reading the department letter, you feel that aspects of your work have been misrepresented, misunderstood, or omitted, you may respond in a written statement that will accompany the materials sent forward to subsequent review levels. Sometimes chairs allow this opportunity for feedback and candidate rebuttal or clarification immediately following the departmental meeting and prior to the actual vote. Again, departments and chairs vary in how they handle these procedures. Nevertheless, your written response becomes part of the dossier and goes forward to the dean and to CAP.

If you believe special problems exist in your case, you should notify either your dean, the Director of the Office of Equal Opportunity and Diversity, or the Vice Provost for Academic Personnel. Potential problems may include prejudice on the part of the chair, conflicts due to internal departmental politics (e.g., competition over space, graduate students, or other resources), or hostility because you have refused a sexual advance, etc. It is important to handle such problems professionally, and this can be done with the help of one of the administrators listed above.

A full set of your materials should be sent forward with the departmental letter and the chair's letter. You have the right to see the departmental checklist of the materials included in the dossier, the right to inspect the non-confidential records in your file, and the right to request redacted copies of the confidential material, as stated above. Candidates should not hesitate to exercise these rights.

Finally, you will be asked to sign a form, the Certification Statement for Academic Personnel Reviews, to indicate that you have received all your rights in the process. If you believe you have not been afforded all the rights outlined on the Certification Statement, you should indicate that on the form and discuss the omissions with your chair.

a. Your Department Chair

The chair of the department plays a critical role in the implementation of the review process. The chair has responsibility for explaining the tenure review process to you before it begins. Once the review is underway, the chair has ultimate responsibility for the department letter that explains your case to subsequent reviewers. Finally, the chair may write a separate letter expressing his or her own opinion on the case. The chair's separate letter is confidential. While the *Academic Personnel Manual* (APM) and the *UCI Academic Personnel Procedures Manual* (APP) outline a standard set of procedures and criteria, their application varies widely from unit to unit. Departments vary in the degree to which the faculty member under review participates in the preparation of the case, in the criteria for evaluation, and in the actual procedures of the review. Talk to your chair about all these aspects of your tenure review.



If changes to your record occur during the course of your review and prior to the final decision, you should keep your chair informed. For example, you should give your chair new letters of acceptance for publications, and also notices of grant funding, prizes, honors, and awards since the submission of the original file. Reports of new research or creative activity may be submitted during the course of the review for tenure cases, though not for other types of reviews.

b. Your Dean

Your materials are sent by the chair of your department to the dean of your school, who adds his or her own letter of evaluation to the file. The dean may appraise and interpret the departmental vote (split votes often require explanation) on the basis of his or her knowledge of department politics and external factors.



c. Council on Academic Personnel

The dean sends your dossier to the Office of Academic Personnel, where it is reviewed to ensure that the requisite information is present in the file. From Academic Personnel, the dossier is sent forward to the Council on Academic Personnel (CAP), an elected Senate committee of faculty whose charge includes review of appointments, promotions, and non-reappointments. CAP provides another level of peer review beyond the department, bringing a campuswide perspective to promotions and encouraging the application of common standards across the campus. CAP takes into account the standards and criteria of the department as well as the quality of the department's analysis and evaluation. Although the deliberations of this committee are confidential, you may obtain a copy of the CAP report at the close of the review. Many CAP procedures, policies, and criteria are in CAP's Frequently Asked Questions document, which is available on the Senate Website at www.senate.uci.edu under "Academic Personnel: Council Report on FAQs and Responses." For example, one question answered there is "What does CAP look for in a midcareer appraisal?"

Optional Campus Ad Hoc Review Committee

For new tenured appointments, promotions, non-reappointments, advancement to Professor Step VI, and accelerations of more than two years, a campus *ad hoc* review committee may be chosen consisting of UC faculty who are in fields pertinent to the candidate's field. In these cases, the report and recommendation of the *ad hoc* review committee is considered by CAP. However, in most cases, CAP acts as its own review committee.

The campus *ad hoc* review committee may be a crucial factor in the outcome of your case. Its basic task is one of evaluation - have you met the expectations inherent in the decision to hire you? As this committee reviews your entire case, it is important that you prepare your materials with an eye toward this audience as well as the departmental audience. Keep in mind that some of the committee members will have only marginal expertise in your field and will be looking for clear guidelines both from you and from outside reviewers as to the significance of your scholarly contributions.

CAP nominates the membership of the *ad hoc* committee, which is confidential, but you can have some influence on its composition by notifying your chair, before the case leaves your department, if there are any individuals who you feel have sufficient personal antipathy to you or your work as to be considered prejudiced. If you are in an unusual specialty, you could advise your chair as to the ranges of expertise and sources of persons appropriate to review your work. Your suggestions may or may not be followed, and the availability of faculty may constrain who can serve on the *ad hoc* review committee. You also may notify your dean or the Office of Academic Personnel should you feel that internal opposition exists from, for example, a hostile chair.

The ad hoc review committee writes and forwards its report to CAP for its consideration.



d. Executive Vice Chancellor and Provost, and Chancellor

After reviewing all of the evidence, CAP votes and forwards its recommendation to the Executive Vice Chancellor and Provost. If CAP disagrees with the department's recommendation or if CAP needs more information, the Executive Vice Chancellor and Provost will write back to the department (with a copy sent to you) to communicate the discrepant recommendation and to ask whether further information exists that should be considered.

Materials not previously included in the dossier may be submitted at this point through your chair, as long as the additional information concerns work published or accepted or any other recognition or activity in the review period. Such information will be forwarded to CAP through the appropriate channels and, where sufficiently compelling, can result in a reversal of a tentative negative decision.

If the Executive Vice Chancellor and Provost agrees with CAP's recommendation, the recommendation is forwarded to the Chancellor for the final decision. If the Executive Vice Chancellor and Provost disagrees with CAP's recommendation, it may be sent back to CAP for reconsideration. In advising the Chancellor, the Executive Vice Chancellor and Provost can reject the advice of the Council on Academic Personnel, although CAP's recommendation is most often upheld. Thus, the tenure decision is typically a faculty-derived decision rather than an administrative one. Final decision-making power resides with the Chancellor.

In the case of a tenure review when the preliminary assessment is to deny the promotion, or in the case of non-reappointment or non-promotion of an assistant professor, the candidate has enhanced access to information in the file and an opportunity to comment at this point. In simple terms, the Chancellor's decision cannot be a negative one without the preliminary assessment notification process. If the Executive Vice Chancellor and Provost's preliminary assessment is for non-reappointment, both you and your department chair will have an opportunity to respond after receiving access to extra-departmental documents in your review file--intact copies of the dean's letter and CAP report, plus redacted copies of the chair's letter and any *ad hoc* report. These, plus a copy of the department letter and redacted copies of outside letters, will be sent to you via the dean's office at the time of the preliminary assessment, if you did not request them at the time of the departmental review.

You will then have 10 working days from the date you receive notice of the adverse preliminary assessment to provide a response to the issues raised during the review. You will be able to submit any additional materials to your chair, and your response, together with additional recommendations from your department and dean, will then be returned to CAP for final review. Your chair and your dean also may provide additional information for final consideration by CAP and the Executive Vice Chancellor and Provost.

Access to Your Review File

Access to your entire file is limited to the information that is made available at specified points of the review. As stated earlier, at the departmental level you may request redacted copies of outside reviewer letters as well as an intact copy of the departmental letter disclosing the vote. In addition, you may request a redacted copy of the departmental ad hoc committee report (if applicable) either before the departmental recommendation or after the Chancellor's final decision. After the final decision, you may request redacted copies of all confidential letters in your review file as well as intact copies of non-confidential materials.

Can the Final Decision Be Appealed?

The outcome of a tenure review is final and may not be appealed once the Chancellor has made a final decision. You should exercise your rights during the review process to provide written comments or additional materials when given the opportunity. If you believe that a procedural error occurred in the course of your tenure review which adversely affected the outcome, you may file a grievance with the Senate Committee on Privilege and Tenure.

B. RESEARCH AND PROFESSIONAL DEVELOPMENT

When you take up a new role in a social system, there is much to learn. You must gain access to the flow of information within the system, and you must juggle multiple responsibilities. The professorial role in a major research university includes research, teaching, and professional and public service, and in some cases, administration or applied activities such as clinical practice. Faced with multiple responsibilities, you must make daily decisions about how best to allocate your time and the aspects of organizational life in which you should become involved.

Making Research a Priority

The University structure is set up primarily around your teaching functions. Your daily life is most visibly organized around the academic calendar; that is, when instruction begins, when classes meet, and when grades are due. Yet your research accomplishments, not your teaching successes, over the course of each year are the primary basis for your evaluation and promotion to tenure. Evidence of a productive and creative mind will be sought in your published research. In fields such as art, dance, music, literature, and drama, distinguished creation will receive consideration equivalent to that accorded to distinction attained in research. For promotion to tenure, there must be evidence that you are continuously and effectively engaged in research or creative activity of high quality and significance.



Despite this reality, one common mistake is to let your teaching functions organize your daily life and to fit in your research and writing on the side. The more productive approach (and an essential aspect of your preparation for tenure) is to **organize your year around your own research and scholarly activities.** Develop an overall five-year plan for your own scholarly development, with each year devoted to a subset of the overall goals. Reassess this plan for its feasibility every year. Plan for what you want to accomplish by the midcareer appraisal and, further, for what you need to have completed by the time of tenure evaluation. Successful plans include the following:

- (1) Develop your agenda not only around quarters and courses but around the best times to collect data, to attend conferences and submit grants, and to write. For example, if you are faced with particularly heavy teaching responsibilities one quarter, determine how you can use your time weekly to collect data or to do your library research so that when more open blocks of time become available you are ready to begin writing. As you approach the tenure review, you may wish to ask your chair for a lighter teaching load. This might entail teaching fewer courses in a given year, courses that involve less preparation, or courses with smaller enrollments. Consider repeating courses you have already taught, rather than developing new ones, the year or two prior to the tenure review.
- (2) **Protect blocks of time each week to work on your own research activities.** Do not give them up under any circumstances. For example, in scheduling student appointments, keep an appropriate number of hours open for students, but do not deviate from the schedule. Some people work best in whole-day blocks of time; others find mornings or afternoons the best time to write. Schedule classes, meetings, and appointments with these considerations in mind, making sure you earmark sufficient, high-quality time for your own scholarly activities. Do not use these precious blocks of time to read your email, answer correspondence, or finish lectures or other work that has spilled over into the time allotted for your research. Guard your research time as you would actual appointment times that cannot be broken.

(3) **Plan for some leave time in order to maximize your opportunities to write.** Apply for a grant with some release time from teaching, or for a faculty Career Development Award that would allow you time off from teaching or a summer free to write or pursue your research. If such funding is not available to you, draw on your sabbatical time before tenure or even consider a leave without pay, if you can manage it financially. Such leaves ensure an uninterrupted period in which to complete a body of work. Be careful, though, about taking too much time off or accepting visiting appointments at other institutions. You will not get credit for teaching at an institution other than UCI, and it is important to have a presence among your departmental colleagues, since their opinions will be basic to the success of your tenure review.

By actively designating appropriate time for your research, and by developing a five-year plan, you can build a research program that has both room and time to grow.

Developing a Scholarly Program

It is essential that there be clear evidence of your UCI-based research program. Your scholarly contributions will be evaluated for evidence of growth, impact on the field (e.g., work that opens new lines of investigation), and future promise. Often, that means your work needs to be programmatic or progressive--it is expected to unfold, with one contribution leading to another. Hence, you will be faced continuously with choices about what to do next. Each discipline varies in terms of what kind of scholarly contribution it most values (whether it is a book or a journal article) and whether it is empirical or theoretical work. Your colleagues can advise you about these criteria of achievement, and you must choose wisely about shaping the direction and scope of your scholarly activities. If books are required, you write journal articles at your peril, and vice versa. Similarly, publication of your dissertation is a mandatory first step in some fields, but is considered less critical in others. Tenure review is based on new work after you have been hired.

Several rules probably hold true across disciplines. Publication of popular books and textbooks does not count heavily in your tenure review. The writing of a textbook can be viewed as a teaching activity, but it is unlikely to be regarded as scholarship, unless colleagues' letters attest to the textbook's scholarly contribution. Ask for such letters if you have written a textbook and you believe that it makes such a contribution. Work that is too narrow in scope might be considered during the review process to be repetitive and/or insufficient to constitute an important contribution. Work that is too broad or reflects too many unrelated interests, in contrast, may be seen as dabbling or lacking focus or a set of themes. Work done in collaboration with someone else (in particular someone senior to you) is difficult for reviewers to evaluate, and questions might be raised about the nature of your independent contribution. Therefore, it may be important to complete some singly authored papers in order to establish your independence.

Extramural Funding

In the sciences, once a research emphasis has been established, grants are necessary to help provide financial support to conduct the research, and such support provides an opportunity to devote a concentrated block of your time to research. This is critical in the building of a viable research program. The ability to attain competitive grants is also a mark of your development as a scholar in the sciences. Talk to a faculty mentor and one or more trusted department colleagues about the expectations in your field or department for attaining national grant funding before tenure or promotion.

Your senior colleagues are your best source of information. Run your ideas by them. Solicit their feedback on drafts of your grant proposals.

The Research and Graduate Studies (RGS) Website at www.rgs.uci.edu presents up-todate information on sources of intramural and extramural funding. In addition, intramural (campus-based) funding is available to school Research Committees for competitive awards for basic and applied research, and for conference and workshop support. The RGS Website also publishes information on UC fellowships, grants, and awards, and posts downloadable forms and application deadlines for the most-used funding sources.

Preparing for Publication

There are choices to be made about when to publish, what to publish, and where to publish. Your colleagues can be very helpful about the criteria of achievement in the field and about the reputation of journals. Colleagues can also provide helpful advice on drafts of your papers before you submit them.

It is important to publish your work as promptly as you can so that wide groups of scholars can learn about it, cite it, and provide constructive feedback which will help you shape your future work. Do not wait until a book is completely finished before earmarking a piece (perhaps a pilot piece) for professional communication. In that way, you begin the process of building visibility, and you keep the door open for important criticism to which you may need to respond in your work. On the other hand, avoid publishing too many small, incomplete pieces of your work that by themselves are insignificant.



If you are working in a science field, you should be sure to approach publication of your research results properly. First, the research itself should be either completed or have reached a point that makes a logical stage for reporting. Multiple small papers or case reports increase the quantity of publications listed in your *curriculum vitae*, but may detract from the overall quality of your achievement. Once the results of your work are available and worth reporting, you must make several decisions. The paper should be well written and reviewed internally by experts who can provide helpful feedback prior to submission to a journal. Everyone who participated in the research should have an opportunity to examine and review the manuscript before it is sent to a journal. Coauthors should be listed in sequence according to the conventions of your discipline. Faculty members who have read the paper but have not participated in the research should not be included as co-authors.

Prepare your work for the most respected publications in the field. Do not settle for journals or publishers of poor quality, since their prestige influences the assessment of your reputation. In fields where journal publication is important, invited chapters do not count as much as articles in refereed journals, because chapters usually do not undergo the rigorous peer review that journals require. Publication of popular books and textbooks may generate independent income, but these may not count heavily in your tenure review. As mentioned before, the writing of textbooks is viewed as a teaching activity, not a research effort, unless respected professionals can attest to your textbook's scholarly contributions. You must consider carefully whether writing a chapter is a better use of your time than preparing a journal submission. As noted earlier, conference proceedings are generally not weighted as heavily as chapters or articles in peer-reviewed journals. However, exceptions exist in some fields, such as information and computer science, where conference proceedings may be peer-reviewed.

Furthermore, in choosing the journal for publication, you need to make thoughtful decisions about the particular audience you want your work to reach. If your work is interdisciplinary or has implications for multiple subfields within your discipline, or if it has applied implications (for teachers, as an example), you might want to have some papers that address each of these audiences.

Finally, your manuscript needs to be in good shape (in format as well as substance) before submitting it for publication in order to lessen the time it is under review and to make sure it is appropriate for the particular journal you have targeted. Your colleagues can really help you with this. On the other hand, extreme perfectionism that needlessly delays submission is not a wise use of time given that most journal reviewers ask for some revisions by the author.

Building Relationships: Increasing Your Visibility as a Scholar

It is important to remember that a strong record of research and teaching will be given much greater weight than will successful networking when it comes time for promotion or tenure review. Nonetheless, relationships with departmental and campus colleagues can be important sources of information, support, and intellectual exchange, and relationships with professional colleagues outside of the University help to establish one's visibility as a scholar. These different realms of relationship-building are discussed below.

Within Your Department

It is important to get to know your departmental colleagues. When the department votes on your promotion, your colleagues' familiarity with you and with your work will be vital. That familiarity should not just be based on their taking the time to read your work. Rather, if they have the sense of you as a lively, responsive, thinking scholar, they will be much more able to take a favorable stance in reading the departmental review committee's report.

How can you get to know your colleagues? Talk to them about their recent work. Ask their advice about the directions you are taking in your own work. If your department has a colloquium or brown bag series, volunteer to give a presentation, especially if you can use this occasion as a "dry run" for an upcoming presentation at a professional meeting. Serve on departmental committees, but do not do so at the sacrifice of your first priority - research. Co-teach with a more experienced colleague; you will learn from each other (but be sure you have an independent teaching and writing record). If you would like a colleague to read an early draft of a paper, first pick someone who is known for friendly and constructive criticism, and then try to lighten the burden by asking for quite specific help (e.g., "I'd especially like your comments on pages 5-9").

Often mentorship will be of great value to you early in your career. If you would like a mentor, you should discuss this with your department chair or your dean and ask them for help in facilitating access to appropriate mentoring.

You should talk at least annually to your chair, as well as to your colleagues, about important professional choices and about the criteria for promotion and "normal" productivity, although creating such opportunities for discussion is more difficult than you may first assume. You need to keep the chair informed about your accomplishments -- the research you are doing, the professional meetings you are attending, the papers submitted, and the invitations received. Keep in mind the important role that the chair plays in the tenure review process. In a sense, you are the person who can best help the chair put together a convincing case on your behalf.

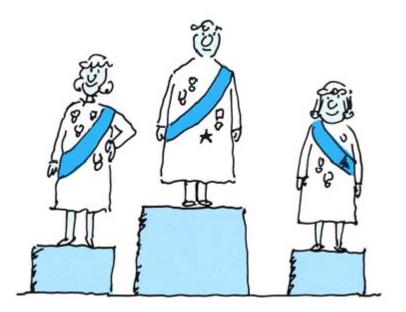
Within the Campus Community

It is important to get to know your colleagues outside of your department, particularly those who do work that is relevant to your own. Not only can they provide additional advice and feedback about your work, but they also can help make you and your work more widely known on campus (e.g., by inviting you to give a talk in their department or area, by recommending you to be a member of an important committee). Moreover, they are likely to be among the pool of outside faculty who will be asked to serve on your committee. It is important to remember that, in the tenure review, the departmental vote is not the only vote. The review and vote by the *ad hoc* committee may be crucial to the final outcome.

For an untenured faculty member, department and school committee service is important and useful. Working on an Academic Senate committee is also a good way to get to know your colleagues, but you must watch the time commitment carefully. Participation on one important Academic Senate committee is likely to be more helpful than is participation on several smaller, less influential school or program committees. However, you must make careful decisions about committee service because it does not count as heavily in the tenure decision as does scholarship. Remember: you have the responsibility for monitoring your own workload. It is not wise to accept any time-consuming service that detracts seriously from your teaching or research accomplishments before tenure. If you have any questions, you can consult your mentor, chair, or dean for advice.

Within a National and International Network of Colleagues

Assessment of your national and international reputation as a scholar is an important part of the tenure review process. Gaining such a reputation during the relatively short time period before the tenure review (typically five years) requires some careful planning. You can take active steps to increase the visibility of your work. Publication of your work in highly regarded journals is most clearly important. Send copies of your preprints and reprints to people whom you cite and who would be interested in your work. A published critical review of the research literature in your area can be helpful.



Participation in conferences and other professional meetings also helps you establish professional contacts. The presentation of papers at these meetings (which require less lead time than does journal publication) can help make your work more widely known. In general, however, conference papers are not weighted nearly as heavily in the tenure review process as are publications in refereed journals. Small meetings where you can engage in serious intellectual discussions with colleagues can often be more helpful than larger, more anonymous meetings with a national network of colleagues. You also may need to participate in establishing a national network of colleagues in your area if such a network does not already exist. Planning your own conference might facilitate the building of such a network, so long as the time devoted to such an activity does not compromise your research productivity.

Remember that in the tenure review assessment of your professional reputation, you will be asked to give your department chair a list of potential outside reviewers. These reviewers should be senior faculty (full professors) at well-regarded universities, and it helps if you and your work are already known to them.

C. KEEPING RECORDS ABOUT YOUR ACCOMPLISHMENTS

You should keep ample records of your accomplishments from which you can draw documentation for merit increases and for promotions. Do not assume that your department is doing this for you. Be sure that the department has your full *curriculum vitae*, with a record of your professional career and publications that goes back to the start of your work, not just your UCI appointment. The *curriculum vitae* should not contain personal information that is irrelevant to your professional work.

Research and Professional Recognition

In addition to reporting your publications to your department, be prepared to include information on research colloquia to which you are invited, as this is an important indication of professional recognition. (Even if you decline, such invitations may be considered quite an honor.) Attending national and regional research conferences is critical in the development of your professional reputation. Giving presentations and organizing symposia at national meetings enhance your visibility. Poster presentations provide you with an excellent opportunity for meeting individuals working in your area.

Keep a record of requests to speak; requests to contribute to books, special journal issues, and panels; requests that you serve on editorial boards as a consultant; requests to review books. Keep records of important citations, letters of praise, and reviews of your work. For some fields, it may be useful to check the Citation Index to find out how often your work is being cited and by whom. Receipt of grants and fellowships is also a good indicator of professional reputation.

Consider putting letters in your file from persons acknowledging your professional or service work, or suggest that the person be consulted by the department. Send your work to such people to keep them abreast of your new activities. If you receive a feeler about a job elsewhere, be sure to keep a complete record, including date and time and caller, even if you do not plan to proceed further.

Remember that some members of your department and CAP may have a very difficult job assessing the importance of your work. They must rely heavily on professional indicators that show you are contributing to your field. Therefore, evidence of national or international recognition should be collected and retained at all stages of your career.

Drafts and Publications

For your midcareer appraisal, include not only published work but also your plans for the next four years. Work in press counts as published material and should always be included. Material not yet accepted for publication is never considered for merit increases or promotions; it is preferable to include published or accepted (forthcoming) articles only. Your *curriculum vitae* may list work in progress, drafts, etc., but the official *Addendum to the Biography* normally should not.

When you are being considered for tenure, do not let anyone dissuade you from submitting all of your scholarly published material for your review file, not just the most recent. Your entire career is being judged at this point.

Teaching

Although you are judged primarily in terms of your research and publications, excellence in teaching is also essential for promotion at UCI. The University's Instructions to Appointment and Promotion Committees (APM 210) clearly states "superior intellectual attainment, as evidenced both in teaching and in research or other creative achievement, is an indispensable qualification for appointment or promotion to tenure positions." Teaching at UCI ranges from formal lectures in large classrooms to informal discussions with individual students and postdocs. It is important to document what and whom you teach, the quality of your teaching, any work on curriculum and course development, service on theses and orals committees, and contributions to textbooks.

If you are spending a great deal of time with students, consider how to reflect this activity in your record. Students who obtain graduate degrees under your supervision appear in the record; other students often do not. Joint publication with students may benefit both you and the student. Report student publications on your projects.

1. What and Whom You Teach

Your **formal courses** will be listed in your department's records. Be sure that those records are accurate. If you co-teach, check that your name is included and that you are credited for the course. If you teach laboratory or discussion sections yourself, have your name listed, not "Staff." Keep your own file of individual tutoring and independent studies and research. Keep a good set of qualitative records to show your concern with teaching: course outlines, reading lists, extra instructional materials, evidence of your work in developing new courses and new methods, and work on textbooks. Keep a record of theses and orals committee participation (including undergraduate honors theses, master's theses, oral qualifying examinations, doctoral dissertations); record your role in evaluating performance in graduate students' performance on comprehensive examinations (under teaching or departmental service). Your department will not know about your extra-departmental service or about your service on other campuses, so keep a file of notices about such committees and a record of dates of completion of dissertations.



2. The Quality of Your Teaching

The quality of your teaching will be evaluated from the following data: student evaluations, students' letters, colleagues' letters, achievements and professional status of former students, evidence of your concern for teaching, and the quality of theses and dissertations you have directed. Student evaluation of your formal course work is usually handled through your school. Depending upon the school in which you teach, you may have a say in which aspects of your teaching will be evaluated. Know your teaching strengths. For example, if your lectures are highly organized but not dynamic, be sure that your organizational ability is appropriately evaluated. If the effectiveness of your communication style is your strength, include that information as one aspect of your teaching that you wish to have evaluated.

Be sure that your students provide teaching evaluations. In some departments the students themselves distribute, collect, and deliver their evaluations to the department, and the department collates or summarizes the material. If you are a woman or minority, and you feel your student evaluations express hostility or bias because of your gender or race, you may consult with the Director of the Office of Equal Opportunity and Diversity, or with your department chair. Departments also can conduct a peer review of your teaching. Two ways to approach this are (1) to ask to give departmental colloquia in order to display your lecturing abilities and (2) to give guest lectures in your colleagues' classes.

If your initial teaching evaluations are disappointing, as they often are for new assistant professors, create a record that shows your efforts to improve your skills. Pay attention to the evaluations, particularly the written comments of students. Visit other classes; get help from colleagues known to be good teachers. You may want to go to the Instructional Resources Center (IRC) or visit their Website at www.irc.uci.edu. The IRC provides free, confidential consultations to help you to enhance your instructional skills and to improve student learning. IRC staff will help you to identify your strengths as a teacher, as well as problem areas and strategies for improvement. The IRC offers ongoing programs and workshops on many topics, including Problem Based Learning, as well as technology institutes. Your efforts will be rewarded by better student learning and by improved teaching evaluations.

Some courses -- often at the graduate level -- do not receive formal evaluation. If you feel that you are a much better teacher of graduate-level courses, be sure to solicit student evaluations from your students in those courses. Otherwise, this aspect of your teaching may never be documented. Your efforts in teaching are also documented by your handouts and course outlines. Be sure to keep a complete set of handouts in each of the courses you teach. These will document your concern for your teaching.

Student letters are also an important means of evaluating the quality of your teaching. If you are tutoring a student, be sure to ask the student if he or she has found your tutorials helpful. If so, make a note of it. Tell the student that you may ask him or her for a letter for your promotion or merit at a later date. Know how you can reach the student.

The achievements and professional status of students with whom you worked closely can provide an indication of your excellence as a teacher and/or research mentor. Keep a record of important awards received by undergraduate and/or students with whom you worked closely. Information about the professional status (e.g., job placements) of former graduate students who you trained often is included in your record (in the *Addendum to the Biography*) during merit and promotion reviews, so it is a good idea to keep this information up to date.

If you are an outstanding teacher, you may be nominated for one of the teaching awards on campus, such as the Academic Senate's Distinguished Assistant Professor Award for Teaching. Inquire if your school gives annual teaching awards. For example, the School of Physical Sciences gives annual awards in each department for outstanding contributions to undergraduate teaching. Find out what the nomination process is, and do not be afraid to walk into the chair's office and suggest yourself for a teaching award.

3. Curriculum and Course Development

If you have spent time on curriculum development in your department, be sure that there is some evidence of this in your records. You may need to ask your chair or students to write about this work. If you have developed a new course or a new method of teaching a subject, be sure to write about it in your self-statement.

4. Theses and Orals Committees

Keep a record of the names of the students, dates of their oral examinations, and dates of graduation. Clearly identify your role: advisor, co-advisor, committee member (i.e., reader), chair of exam committee, member of exam committee, etc.

5. Textbooks

Your experience in writing textbooks or chapters in published textbooks should be documented. This provides evidence that you are lecturing to a broad base of students.

Because departments vary considerably in the methods of evaluating teaching and in the value placed upon teaching relative to other criteria, you should discuss the norms and practices in your department with the chair or another advisor. Then, it's a good idea to submit, along with tangible evidence, a narrative of your teaching accomplishments to integrate the various kinds of evidence and to highlight those accomplishments most valued by your department.

Service

Keep careful records of all your committee, consultant, and public service work. If products resulted from your work, include these in your materials (e.g., in the development of a new program, include a program description). Solicit letters for your file concerning your contributions. Document any evidence of your impact and effectiveness. It is important to realize that you may be the only person keeping a record of these types of service. If you are a woman or a member of a minority group, you may find yourself overburdened with committee work. Should this occur, careful documentation of work you have already done may help you to decline further committee assignments. It is important that you have some service at this stage of your career, but not at the expense of your research or teaching responsibilities.

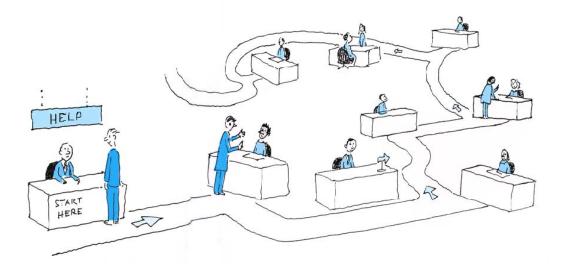
D. SOURCES OF HELP

Official Rules and Regulations

To learn your rights and privileges within the University, you should refer to the *Academic Personnel Manual* (APM), the *UC Faculty Handbook*, and the *UCI Academic Personnel Procedures Manual* (APP), all of which are readily available online through the Academic Personnel Website at www.ap.uci.edu. The Office of Academic Personnel also can provide you with information concerning your employment. If you wish to learn the status of your review at any time during the review process, talk with your department chair. The Office of Academic Personnel provides your school with frequent status reports of open cases during the review cycle.

If you receive an unfavorable review, your department chair will be informed by letter before a final decision is reached. The letter will ask for any new information that may alter the decision. Obviously, any changes of duties, new manuscripts or grants, and new teaching evaluations or accomplishments should be submitted at that time.

If you feel your case has been misrepresented after reading your copies of the departmental report and redacted outside letters, you have several channels of recourse open to you. If you believe that internal bias exists, talk to your chair, dean, or one of the resources listed below.



People

If you suspect unfair treatment, exhaust the channels for informal inquiry before trying formal complaints. People are inclined to be helpful on a voluntary basis but are more likely to become defensive when threatened with outside scrutiny. For many reasons, institutions are often hostile to outside investigation and can be very critical of those who go outside for help. The University is generally more responsive to people who begin with an internal complaint process. Therefore, you should be judicious in the order of your actions. The risk of both great expense and professional ostracism exists. Be sure to get good advice before making a formal complaint.

The following internal "people" channels are available:

- Your chair
- Your dean
- The Faculty Equity Advisor and Community Equity Advisor for your school
- Your school's personnel analyst in the Dean's Office or the Office of Academic Personnel
- The Director of the Office of Equal Opportunity and Diversity
- The University Ombudsman
- The Senate Committee on Privilege and Tenure

Each of the above can look into your file, correct errors and injustices, and advise you about other courses of action.

Administrative Offices

If you decide to undertake a formal complaint, you can go to one or more of the following: the Office of Equal Opportunity and Diversity, the Senate Committee on Privilege and Tenure, the Office of Civil Rights in the U.S. Department of Education, or the courts. Some individuals have won court victories when substantiated with good data; however, the California Information Practices Act of 1977 makes access to some data very difficult.

Remember Your Supporters

The day-to-day life of a faculty member can be very stressful, and it is important for you to retain your perspective. There may be times when your grant proposals are not being funded, your research program is stalled, your teaching evaluations are disappointing, and some journal editor has just asked you to do a few (thousand!) additional experiments before your paper can be accepted. As if this were not enough, your tenure clock keeps ticking, and there is little you can do to stop it. At such times it is hard to offer any consolation except to remind you that these types of problems are endemic to all University faculty. It is important to realize that there are a number of individuals and groups on campus who are interested in your advancement, promotion, and development as a faculty member:

- Senate Council on Academic Personnel -- comprised of senior faculty members who devote a great deal of time to faculty promotion and issues relating to academic personnel
- Senate Council on Faculty Welfare -- concerned with issues and policies that are relevant to women and minority faculty members
- Senate Committee on Privilege and Tenure -- addresses faculty rights and privileges
- Faculty and Community Equity Advisors for your school -- responsible for setting up support networks necessary to guide assistant professors through the tenure barrier and associate professors through promotion to full professor
- Associate Executive Vice Chancellor, Academic Personnel -- the Office of Academic Personnel reports to this position and is devoted to serving the faculty and ensuring that policies related to faculty are expeditiously and fairly implemented

The Office of Academic Personnel sponsors a variety of very useful faculty development activities, including a faculty orientation program each fall featuring presentations by the Chancellor, Executive Vice Chancellor, Associate Executive Vice Chancellor, and the Chair of the Council on Academic Personnel. These programs are highly recommended for all new faculty members.

E. FOSTERING THE DEVELOPMENT OF JUNIOR FACULTY -ADVICE TO CHAIRS AND OTHERS

Initial Counseling

- Make sure that you give new assistant professors explicit advice about record-keeping and about strategies related to promotion, given that they may lack informal contacts.
- Make clear what the standards of promotion are in your department.
- Show the new assistant professor the publication records (and with permission, the selfstatements) of the most recently tenured associate professors in your department as a frame of reference.
- Make this Advancement and Promotion at Irvine guide available to new assistant professors.
- Allow new assistant professors to serve on midcareer review (drafting) committees and/or tenure review committees to help demystify the process.

Mentors and Continued Advising

- Make sure that each new assistant professor has a specifically designated tenured professor to help guide the new appointee's progress. Women and minorities often find themselves socially isolated and lacking informal advice about publishing, conferences, and research planning that is essential to progress.
- Inform new appointees about normal teaching loads, available assistance, available funds, and research facilities. In some departments these resources are seen as zero-sum and, hence, not to be shared with new faculty. In this case, the chair should take appropriate steps to remedy this problem when it has the potential to adversely affect the junior faculty member's productivity.
- The chair should be sure to keep track of conferences for new faculty, where they publish, and so on.

- Chairs are particularly responsible for preventing assistant professors from being overloaded with administrative and committee work.
- Chairs do not have the right to censor research topics, rewrite papers, or interfere against the will of candidates.
- Advise faculty that they have the right to paid childbearing leave. Childbearing faculty are also eligible to request an additional period of active service-modified duties. The "active service-modified duties" option is also available to natural fathers and adoptive parents of either sex. See APM 760, Family Accommodations for Childbearing and Childrearing.
- Advise assistant professors that they have the right, under certain circumstances provided for in academic personnel policy, to request an extension of their time before tenure review if they have been involved in childbearing since being hired (APM 133-17h).

Advice on Obtaining Grants and Awards

- Women and minority assistant professors should be encouraged to apply for faculty Career Development Awards.
- Assistant professors should be told how to obtain funds from the Research Committee and how to procure equipment through available University funds.
- Mentors should keep tabs on grant submissions, appropriate agencies, review content, etc.
- Chairs should assess the candidate's grant activity for the possibility of proposing accelerated merits.

Using the Midcareer Appraisal Constructively

- Use the midcareer appraisal, like a student's midterm exam, as a good time for pointing out problems to a candidate, but be careful about frightening a candidate who lacks self-confidence.
- Give supportive advice that encourages constructive change. Because of the isolation of women and minority assistant professors in many departments, they particularly need such encouragement to reassure them about their situation.
- Do not write glowing reviews for the midcareer appraisal unless the department can project its support at the tenure review. In some cases, midcareer reviews have been too positive and have failed to identify difficulties that could have been remedied if there had been adequate advising.
- Emphasize that criticisms and suggestions in the midcareer appraisal will be revisited in the tenure review.
- Show the candidate bibliographies of successful tenure cases in the department. These presumably set the standard. The files themselves are confidential, but the bibliographies are not.

Advisors Beyond the Department

• Urge women and minority faculty members to meet their deans, their school's Equity Advisors, and the Director of the Office of Equal Opportunity and Diversity. It is part of the responsibility of those administrators to be advisors to women and minority faculty and to be aware of resources they may need.

Counseling Faculty Through Difficult Reviews

- If a promotion case is at all controversial, encourage the candidate to request access to redacted copies of the confidential review records in the file and to request a copy of the department letter and vote. These must be made available within five days of the request so as not to delay the review.
- Be sure that the file contains no inappropriate material that could have influenced the outcome of the personnel review.
- Encourage candidates to verify their *Addendum to the Biography* (Form UCI AP10) for completeness before signing, and encourage them to write a complete statement of their achievements to be included in the dossier. This self-statement will help the review committee understand the goals and pattern of a candidate's work.

- At the time of the promotion review, make sure that all relevant material is forwarded to outside reviewers and to subsequent review levels.
- Help the candidate construct the best list of outside reviewers, and make sure the department generates an independent list of appropriate outside reviewers. Send each referee a packet of material. Ask a staff member to call all those who do not respond fast enough, and keep records of the calls.
- Do not make assumptions about reasons for non-response, and make sure that others also do not.
- If any letter received contains inappropriate language, return the letter to the referee and ask that the letter be rewritten. All solicited letters have to be forwarded to the next level of review.
- Be sure the dean knows when your junior faculty, including women and minority faculty, have competing offers so that there is help preparing the best retention case possible.

PART II:

ADVICE FOR TENURED FACULTY

You've made it over the tenure hurdle, and your colleagues have welcomed you as a permanent member of the department. What happens next?

A. MERITS AND PROMOTIONS

Post-Tenure Review

While the granting of tenure may be the most important decision affecting your career, the merit-based review system is an ongoing process that will occur every few years throughout your tenure at the University. Post-tenure review has only recently entered the national discussion, but at the University of California it is a well-established reality.

CAP sees the first merit review after tenure as an indicator of future progress, and so it will be especially important for you to keep up the momentum of your scholarly work after the tenure review. You will want to make good progress throughout the associate professor rank and on to full professor by way of a series of merit and promotion reviews.

Associate Professor Rank

For an associate professor, there are three normal steps - Step I, II, and III - each with a normal service period of two years before the next review. Thus, the normal period of service at the rank of associate professor is six years, after which time you should expect to be reviewed for promotion to full professor. The promotion review is similar in complexity to the tenure review.

Two additional steps, IV and V, may be used in certain cases for candidates who are not quite ready for promotion to full professor, but whose performance in research, creative activity, teaching and service is seen as meritorious. Steps IV and V are called "overlapping steps" because their salaries are virtually the same as Professor I and II. At one time, it was considered fairly normal for service at the overlapping steps to be counted as equivalent to service at the higher rank and to be promoted from Associate V directly to Professor III. However, CAP currently considers that, whatever the step the individual occupies at the associate level, normal promotion is to Professor, Step I. What this means is that a candidate could spend three years at Associate V in addition to the normal six years at the associate rank, and then only be moved to Professor I at the time of promotion. For this reason, use of the overlapping steps is normally discouraged.



Full Professor Rank

For a full professor, there are nine steps. The first five steps have a normal period between reviews of three years. Beyond Step V, there is no normal period of merit review because there are additional, more stringent criteria for advancement. Advancement to Step VI requires great distinction and national or international recognition in scholarly achievement or in teaching. Advancement to Step VI, in terms of review, is similar to a review for promotion. Merit increases from Step VI to Step VII, Step VII to Step VIII, and Step VIII to Step IX usually will not occur after less than three years of service at the lower step, and will only be granted upon evidence of continuing achievement at the level required for advancement to Step VI. Advancement to an above-scale salary is reserved for scholars and teachers of the highest distinction whose work has been internationally recognized and acclaimed and whose teaching is excellent. This advancement review is also similar in process to a promotion review.

Career Review

If you think you may not be at the appropriate rank or step in relation to faculty of equal accomplishment, you may request a Career Equity Review. The purpose of this review is to examine cases in which normal personnel actions from the initial hiring at UCI onward may have resulted in a rank or step not commensurate with the candidate's overall achievement as assessed in the areas of research, teaching, professional activity, and service and in terms of the standards appropriate to the candidate's field, specialization, and cohort. Additional information on Career Equity Reviews is available on the Academic Personnel Website at www.ap.uci.edu.

B. RESEARCH AND PROFESSIONAL GROWTH

Keeping Research a Priority

It is important for your career that you set goals that will help you achieve promotion to full professor in a timely manner. Promotions and merit increases will be based primarily on your scholarly publication record, and therefore research should remain your priority. If you are in a department with many colleagues who receive accelerated merits, talk to your chair about the department's criteria for both "normal" and "accelerated" advancement. Associate professors who are accelerated through the steps may achieve promotion to full professor earlier in their careers than others and may be looked upon as "rising stars."

Continue to follow the good work habits you developed as an assistant professor -- plan your academic schedule around your research agenda. Develop five-year plans. Use sabbatical leave opportunities wisely, combining them with grant or fellowship-supported leaves whenever possible.

Administrative Service - Pros and Cons

You will undoubtedly be asked to provide more department and campus service as an associate professor than you were as an assistant professor, when your time was somewhat protected. Service on departmental personnel committees and on campus *ad hoc* review committees will give you valuable insights into how the review process works. Service on administrative or Academic Senate committees will provide you with opportunities to network with faculty colleagues across the campus who you might not otherwise have the opportunity to meet. Service contributions are valuable to you and to the campus. However, they will drastically impact the time you can devote to your research and can slow down the rate at which you advance to full professor.



Newly tenured women and minority faculty need to be especially judicious about protecting their posttenure research time.

If you have an interest in and talent for administrative service, you may be asked to take on a more timeconsuming role, such as department chair or associate dean. Effective leadership is an important contribution to the University, and it may provide attractive rewards in the form of stipends or other additional pay. However, you should remember that merits and promotions are based primarily on scholarly achievement, and so you will need to protect your time for research. While APM 245-11, "Criteria for Evaluating Leadership and Service in the Academic Personnel Process," indicates that reviewers will give credit for effective leadership up to the level of Professor, Step V, and that they will allow for reduced activity in teaching and/or research, the fact remains that good service will not make up for poor performance in teaching or research. **Reviewers will expect to see substantial scholarly achievement for promotion.**

Developing a National and International Reputation

In addition to maintaining an active research agenda, promotion to full professor and beyond is based upon developing a national and international reputation in your field.

National reputation is generally built on the originality and quality of research. It can be further enhanced by learning to be a well-organized, clear, and persuasive lecturer in your research field. Service on editorial boards, site-visiting teams, study sections, and consensus conferences takes time and effort, but such activities represent valuable contributions that help the profession as well as the individual. Be generous with your time when called upon to work for scientific societies in your field of endeavor. The education of young colleagues and their professional success constitute very important ingredients of your reputation.

International reputation is probably the most difficult to achieve and takes the longest time. It is based on national reputation, on the training of foreign research fellows, attendance at international meetings, service on international committees, and lectures and paper presentations at international meetings. When reached, it is the ultimate addition to your own prestige and to that of your department.

C. FOSTERING THE DEVELOPMENT OF MIDCAREER TENURED FACULTY - ADVICE TO CHAIRS AND OTHERS

Recognizing Faculty Achievements

- Find ways to recognize and convey appreciation for the ongoing achievements of midcareer tenured faculty. This can include pursuing nominations for university and national awards, as well as announcing/publicizing faculty achievements in faculty meetings and university publications.
- Consider the development of a nominations committee in the department to ensure that opportunities for faculty recognition (at all ranks) are identified and strong nomination packages prepared.

Maintaining Salary and Resource Equity

- Faculty morale and retention can be enhanced by active efforts to avoid disparities in faculty salaries and resources. Inequities can be minimized through regular review of salaries, merit raises, teaching workloads, office and research space, committee service, nominations for awards, and opportunities for departmental leadership roles.
- Consider initiating proactive salary adjustments to redress inequities, rather than waiting for faculty members to become frustrated or to seek outside offers, thereby risking their loss to another institution.

Continued Advising

• Midcareer tenured faculty sometimes can benefit from advice and guidance about their career development. This is particularly true of individuals whose advancement from associate to full professor has become delayed as the result of reduced productivity. Make yourself available to meet with such individuals to discuss causes of the reduced productivity and ways to revitalize their scholarly activities. Providing a small amount of departmental seed funding or linking the faculty members to shared research facilities or sources of bridge funding to support new work may be effective. It may be useful in some cases to identify senior faculty members with active research programs who are willing to provide informal (and sympathetic) mentoring.

Developing Leadership within the Department

• Consider rotating the membership and leadership of important departmental committees at appropriate intervals so that faculty members have an opportunity to learn about different aspects of the department's functioning. Rotating committee membership fosters the development of leadership potential within the department, ensures that the committees benefit regularly from fresh ideas and perspectives, and reduces the probability that particular faculty members will feel excluded or devalued.

PART III:

SPECIAL ISSUES FACING WOMEN AND MINORITY FACULTY

The promotion system in large research universities is designed for highly ambitious researchers who are attentive to the criteria for achievement in their professions. In the past, this career pattern has been predicated upon the availability of a partner to support career development, freedom from the tasks of childrearing to ensure uninterrupted periods of work, and freedom to make geographical moves to obtain the finest training opportunities and appropriate advancements. If you are a woman faculty member, you may face a variety of challenges in these areas as you negotiate your place in the still predominantly male academic world.

Ethnic minorities, both male and female, find themselves attempting to penetrate a traditional system of values and ideals that has long been the fountainhead of bonding among men of dominant social categories in higher education. Membership in academic departments can place such high expectations on the minority faculty member that anything other than superior performance can be perceived as failure. Appointment to faculty committees can take a tremendous toll, especially if you are committed to making your voice heard in a still predominantly non-diverse academy.

The following are some of the constraints that women and minority faculty members face when they try to fit into this work world. Included as well are a variety of options that are available to negotiate some of these constraints.

Role Models

Women and minority faculty learn the role of a university professor in a world of predominantly white male colleagues. In many fields and in most university settings, it is rare to find full professors, deans, chancellors, and journal editors who are women and minorities. The small numbers of women and minorities in academic departments can place a spotlight on them and their performance, straining their interaction with white male colleagues, contributing to misperceptions by others of their accomplishments, and serving to isolate them professionally and emotionally. The relative absence of other women and minorities in leadership positions lessens the opportunities for the modeling of productive behaviors and reduces the chances to have professional opportunities passed on to younger generations of women and minority faculty.

Given this reality, minorities and women have different opportunities than do their white male colleagues for professional development in their fields. Often, information about grants or the politics of a department or opportunities for participation in professional activities are passed on to younger colleagues in informal settings to which minorities and women have less access. Through lack of power and through lack of access to the occasions in which power is shared, they are offered differential opportunities for participation in the academic world.

Make a specific project of contacting and getting to know other faculty, especially those senior to you, who are in your field. These people frequently will have advice on both departmental and scholarly strategies and are often in a position to represent you (to recommend you for conferences, lectures, awards, etc.) in contexts in which you are not directly involved. Learn about equitable expectations and opportunities in your department by inquiring about the methods and criteria for allocating support facilities, research space, teaching assistants, graduate-student researchers, research committee funds, and teaching and committee loads. Contact the Faculty Equity Advisor and the Community Equity Advisor in your school for information about networking and additional opportunities.

Extra Professional Demands

Women and minority faculty tend to be in very high demand. They are invited to serve on many committees, particularly since pressure sometimes exists to diversify committee membership. They are asked to give many talks and to teach certain courses, all because there is a need to have their perspective represented. There is also pressure from the community for involvement and expertise. These community demands can be very time consuming, especially for minority faculty members, who can find themselves easily diverted from research by requests for consultation, expert testimony, participation on community boards, etc. In addition, women tend to be particularly responsive to requests for advising and service. Over-commitments to all these activities limit research development and the opportunity for promotion. Given this extra demand and their own responsiveness to it, women and minority faculty need to work harder to ensure uninterrupted periods for research and writing.

Teaching loads need to be reconsidered -- not only how many courses you teach, but which courses. It is fair to request a reduced load from your chair, particularly if it is close to tenure time. The accommodations that can be granted by your chair will depend somewhat on the size of your department, so it may be politic first to inquire of your chair as to what is considered reasonable and what has been the general practice in this regard. It is important to teach some graduate courses where you have access to graduate students who could become involved in your work and increase your research productivity.

You can also ask for relief from committee assignments and advising functions. Do not let yourself be drawn too much into doing your department's administrative work or even into University administration before you have tenure. If you find yourself being the token woman or minority member, discuss this with your chair and consider turning down some invitations. To add extra clout to your response of "no," get your department chair to decline the invitation on your behalf. If you are asked to serve on a national committee and want to do it (national committees provide evidence of a national reputation), you might get the department to trade that for department service. Any time you are asked to serve on a committee, be sure to bargain for the conditions you need.

Differential Treatment

Many women become painfully aware that their status as a numerical minority and as a female affects how they are perceived. As women, their comments and actions are sometimes subtly and often unintentionally interpreted differently than are the behaviors of men. What might be viewed as "assertive" behavior in men may be interpreted as "aggressive" when exhibited by women. Collegial exchange between women faculty members may be interpreted as "gossip" or an organized "caucus." A woman's failure to behave in an expected "feminine" way (e.g., being supportive and nurturing of others) may be viewed in negative terms as being "selfish" and "out for oneself" -- a quality that might, given different labels, be valued in male colleagues.

Ethnic minority faculty members, both male and female, also can experience many forms of differential treatment that undermine their self-confidence and make them feel like uninvited guests at a private club. They may be perceived by other faculty members as "affirmative action" hires, and thus judged (albeit erroneously) as less qualified and less competent than other colleagues. They may be excluded from informal and formal social activities, where much important information is shared. They may not be invited to collaborate on research projects or to teach doctoral seminars that will advance their careers. Finally, they may be expected to deal with all of the issues related to minority students and affirmative action, leaving their majority colleagues to handle "more important" matters. Students are also more likely to challenge and question the competence of minority faculty members, both in the classroom and in academic committees. These patterns of differential treatment may be subtle or blatant, but their presence creates anxiety, dampens morale, and impairs the performance of women and minority faculty members.

Geographical Constraints Affecting Women

Historically, women who have a spouse/partner are more likely than men to be geographically bound to the area in which they live. Given the needs of two careers, they may not be as free to explore and accept important training opportunities, to collect data at away-from-home research sites, to expand their national and international relationships through sabbaticals, and to actively consider job moves. Women faculty are also less likely to receive outside job offers because of presumed lack of mobility. Yet evaluations of scholarship are heavily swayed by what geographical freedom can buy. In light of the difficulties inherent in two-career moves, women may avoid thinking about options that involve a geographical move, however short-term. Thus they might not pursue a job offer that would demonstrate outside interest in their scholarly accomplishments. Nevertheless, outside interest can be critical in determining the level of appointment and in obtaining merit increases. Individuals who do not explore these outside opportunities may not be in as competitive a position as they could have been at promotion time. Thus, do not avoid pursuing outside interest, but do so judiciously, as the criteria for what defines a "competitive outside offer" often vary. Outside interest from prestigious institutions should be documented and brought to your chair's attention.

Childrearing vs. Career Needs

The intense period of early career development often coincides with the time when, for psychological and biological reasons, a young faculty member might like to start a family or might already be engaged in the care of young children. Hence, having children and "making it in a career" are sometimes on a collision course for women or for single parents of either sex who play active roles in child rearing.

The University asks for total allegiance and for virtually the full-time commitment of those engaged in career development, leaving family responsibilities very much in second place. While this must change, the change is slow in coming. Also, the difficulties of early careers are compounded by a promotion process requiring you to prove yourself within a specific time period. Historically, the eight-year time limit was introduced by universities in response to criticism that it was unfair to keep a faculty member employed at a junior level without either promotion or dismissal. Unfortunately, pregnancy and childbirth, and the ongoing responsibilities of raising children and managing an intensely demanding academic job, make the five years before tenure review (and the three years before the midcareer appraisal) times of special pressures on all involved.

If you have substantial responsibility for the care of an infant or newly adopted child under age five during your pre-tenure years, you may request an extension of the eight-year clock for each event of child birth or adoption. The clock may be stopped more than once, and you may have up to two years total off the clock (APM 133-17). This policy attempts to take into account the difficulty junior faculty have in teaching and doing research while raising young children. However, there is a long way to go before childbearing/rearing and career patterns can more easily fit together for the young parent and faculty member.

It is possible, financial circumstances permitting, to take a leave without pay in order to better juggle your research, writing, and domestic responsibilities. Relief from teaching duties can go a long way in helping to balance commitments.

University policy regarding leave time for the birth or adoption of a child, as well as time off the tenure clock for childrearing duties, may be found in the following sections of the *Academic Personnel Manual*:

- APM 760, Family Accommodations for Childbearing and Childrearing
- APM 715, Family and Medical Leave
- APM 133, Limitations on Total Period of Service with Certain Academic Titles

Current APM policy allows an academic appointee who is a birth mother and who has a full-time appointment for at least one full academic year (three quarters or two semesters) to be eligible for a total period of childbearing leave plus active service-modified duties of two quarters (or two semesters) to enable her to recover fully from the effects of pregnancy and childbirth and to prepare for and/or care for the newborn child. If she gives birth during the summer or an off-duty term, she is eligible for a total period of active servicemodified duties of two quarters (or two semesters). Eligibility for a period of active service-modified duties shall normally extend from 3 months prior to 12 months following birth or placement.

The "active service-modified duties" option is also available to natural fathers and adoptive parents of either sex. See APM 760, Family Accommodations for Childbearing and Childrearing. Parental leave is leave without salary granted for the purpose of child care. Normally, this leave, combined with childbearing leave and/or Active Service-Modified Duties, may not exceed one year for each birth or adoption (APM 760-28). It is helpful to consult with a number of recent birth or adopting parents about practices in your department or school.

Language and Other Differences

Culture shock is a very real experience for some minority and/or immigrant faculty who grew up and received all or part of their training outside of the United States or for whom English is a second language. It takes time to catch up on communication skills-not just daily communication, but the ability to teach effectively and master the art of writing papers and grant proposals independently in a reasonable and timely manner. It is essential for these issues to be addressed early in your career in order not to waste time and opportunities.

The Need for Further Change

Despite the gains that have been made and the options that are now open, there is still much room for change. In considering the University and the tenure process, women and minorities may tend to think, "We must fit in--we must adapt to the process; it will not adapt to us." However, if women and minority faculty continue to ask for what they need, to forge new directions, then perhaps institutional procedures might bend a little and eventually open up to new influences.

It is important to work actively to change career constraints for women and minorities. What is needed is (1) to identify the necessary conditions for success and try to implement them, and (2) to move beyond exceptions-to-the-rule toward the development of new policy. Each strategy in and of itself is piecemeal, only addressing a single aspect of career constraints.



For example, the granting of extra time before the tenure review may mask the fact that countless other factors (such as access to grants, publication outlets, etc.) still militate against the success of women and minorities. The extra time may be a small drop in the bucket of the real-time problem you might face as part of a dual-career couple with children in a world that rewards regular and early achievement. Or in the granting of extra time, the time clock may never really stop. It might be viewed as extra years in which more should have been accomplished. Nonetheless, if with extra time you can accomplish a great deal, that achievement can make all the difference in the tenure review process and is worth pursuing despite the dangers of misinterpretation.

If women and minorities become informed about the tenure process and actively press for conditions and resources they need to succeed, the precedent for rethinking procedures will grow and, with it, the possibility that career development patterns may better fit the needs of all.

Nondiscrimination and Affirmative Action Policy Statement

The University of California prohibits discrimination against or harassment of any person employed by or seeking employment with the University on the basis of race, color, national origin, religion, sex, gender identity, pregnancy, physical or mental disability, medical condition (cancer-related or genetic characteristics), ancestry, marital status, age, sexual orientation, citizenship, or status as a covered veteran. The University of California is an affirmative action/equal opportunity employer. The University undertakes affirmative action to assure equal employment opportunity for minorities and women, for persons with disabilities, and for covered veterans. (Covered veterans are special disabled veterans, recently separated veterans, Vietnam era veterans, or any other veterans who served on active duty during a war or in a campaign or expedition for which a campaign badge has been authorized.) University policy is intended to be consistent with the provisions of applicable State and Federal laws.

Inquiries regarding the University's equal employment opportunity policies may be directed to:

Kirsten K. Quanbeck, Assistant Executive Vice Chancelor Office of Equal Opportunity and Diversity University of California 4500 Berkeley Place Irvine, CA 92697-1130 Telephone: (949) 824-5594

Printed May 2007. Office of Academic Personnel.

Advancement and Promotion at Irvine • 57

Reducing the Effects of Gender Stereotypes on Performance Evaluations¹

Cara C. Bauer^{2,3} and Boris B. Baltes²

The purpose of this research was to extend previous work on gender bias in performance evaluation. Specifically, we examined whether a structured free recall intervention could decrease the influence of traditional gender-stereotypes on the performance evaluations of women. Two hundred and forty-seven college students provided performance ratings for vignettes that described the performance of male or female college professors. Results indicated that without the intervention, raters who have traditional stereotypes evaluated women less accurately and more negatively. Conversely, the structured free recall intervention successfully eliminated these effects. The usefulness of the structured free recall intervention as a tool for decreasing the influence of gender stereotypes on performance ratings is discussed.

KEY WORDS: performance evaluation; stereotypes; gender bias; structured free recall.

A large amount of the research on performance appraisal concerns the effect of ratee gender on performance evaluations and other merit ratings (e.g., Arvey, 1979; Davison & Burke, 2000; Deaux & Taynor, 1973; Dobbins, Cardy, & Truxillo, 1988; Goldberg, 1968; Gunderson, Tinsley, & Terpstra, 1996; Hamner, Kim, Baird, & Bigoness, 1974; Martell, 1996; Maurer & Taylor, 1994; Mobley, 1982; Pazy, 1986; Pulakos, White, Oppler, & Borman 1989; Robbins & DeNisi, 1993; Shaw, 1972; Sidanius & Crane, 1989; Swim, Borgida, Maruyama, & Myers, 1989; Thompson & Thompson, 1985; Yammarino & Dubinsky, 1988). The majority of the research has focused on whether or not a pro-male bias exists and what possible causes of the bias might be. According to Nieva and Gutek (1980), a pro-male bias occurs when men are rated more favorably than women given similar performance. Although the research, especially in field settings, has yielded mixed results, there does seem to be some evidence for a pro-male

bias in the evaluation of performance and in employment hiring decisions (Arvey, 1979; Davison & Burke, 2000; Deaux & Taynor, 1973; Dobbins et al., 1988; Goldberg, 1968; Gunderson et al., 1996; Martell, 1996; Maurer & Taylor, 1994; Pazy, 1986; Robbins & DeNisi, 1993; Shaw, 1972; Sidanius & Crane, 1989). If this is the case, the implications for women in organizations are troubling as women may still be at a disadvantage in obtaining employment, pay increases, and promotions.

The majority of past performance appraisal research has focused specifically on the gender of the ratee as the cause of the differences in ratings, in other words a main effect of ratee gender (e.g., Deaux & Taynor, 1973; Goldberg, 1968; Gunderson et al., 1996; Pazy, 1986; Sidanius & Crane, 1989), however some researchers have looked for interactions with social cognitive variables (e.g., stereotypes, prejudices) for answers to this question (e.g., Dobbins et al., 1988; Martell, 1996; Maurer & Taylor, 1994; Robbins & DeNisi, 1993). These researchers (Dobbins et al., 1988; Maurer & Taylor, 1994; Robbins & DeNisi, 1993) have applied gender theory to explain the cause of the pro-male bias found in some performance evaluations. It is thought, and research has shown (e.g., Dobbins et al., 1988), that only raters with traditional stereotypes of women will exhibit a pro-male bias.

¹Portions of this paper were originally presented at the 16th annual meeting of the Society for Industrial and Organizational Psychology, San Diego, California, April 2001.

²Wayne State University, Detroit, Michigan.

³To whom correspondence should be addressed at Psychology Department, 71 W. Warren, Wayne State University, Detroit, Michigan 48202; e-mail: cbauer@sun.science.wayne.edu.

Furthermore, recent research that has examined the cognitive components of performance appraisal may provide the means by which one could reduce the promale bias exhibited by raters with traditional stereotypes. For example, Martell (1996) examined the functioning of heuristics based on gender stereotypes and their effects on evaluations of women. Martell found that gender stereotypes may cause raters to ascribe more effective work behaviors to men than women; a systematic response bias (rather than selective memory) caused the differences. This systematic response bias is thought to occur because the rater relies on a heuristic/stereotype at the time of the rating instead of thinking back to the actual performance (Baltes & Parker, 2000a, 2000b; Martell, 1996). Recently, a structured free recall intervention has been shown to reduce raters' reliance on heuristics and increase rating accuracy (Baltes & Parker, 2000b). The purpose of the present study was to extend previous research on gender bias in performance evaluation by testing a structured free recall intervention to reduce the influence of a pro-male bias in performance ratings.

Pro-Male Bias

The inconsistent results in the literature on performance appraisal have resulted in a controversy about the existence of a pro-male bias. Although many researchers have found support for the notion that men are, in general, rated more favorably than women (e.g., Deaux & Taynor, 1973; Goldberg, 1968; Gunderson et al., 1996; Pazy, 1986; Shaw 1972; Sidanius & Crane, 1989), some researchers have failed to find a significant difference between the ratings provided for men and women (e.g., Hamner et al., 1974; Mobley, 1982; Pulakos et al., 1989; Swim et al., 1989; Thompson & Thompson, 1985; Yammarino & Dubinsky, 1988).

The inconsistency of findings of the pro-male bias in performance evaluations is problematic. However, some researchers have offered several explanations as to why these inconsistencies may exist. For example, research has shown that women will only be discriminated against when the job type is viewed as being traditionally a men's job (see Martinko & Garner, 1983; Kalin & Hodgins, 1984, for reviews). Also, researchers have shown that the type and amount of information given to a rater can affect the strength of gender stereotypes on subsequent ratings (Davison & Burke, 2000, Fiske, 1991; Glick, Zion, & Nelson, **Bauer and Baltes**

1988; Locksley, Borgida, Brekke, & Hepburn, 1980; Locksley, Hepburn, & Ortiz, 1982; Pratto & Bargh, 1991, Seta & Seta, 1993). The more information presented, and the more the information refutes the stereotype, the less raters apply the stereotype to the particular person in question. Another hypothesis more pertinent to the present study is the idea that most researchers have assumed that all or at least most raters will exhibit biased behavior, which may be false. Social psychologists have long believed that promale bias lies in the schema or stereotype people have about women. If this were the case, then whether support for the pro-male bias was found would depend on whether or not the raters in the study believed in the stereotype. Because the previously mentioned performance evaluation studies were only assessing ratee gender and not the raters' stereotypes, this factor could also account for some of the mixed results.

Gender-Based Stereotypes

According to social–cognitive theory, most raters have well-developed stereotypes of men and women (Bem, 1981; Del Boca, Ashmore, & McManus, 1986; Fishbein & Ajzen, 1975; Swim & Sanna, 1996), which link men and women to certain behaviors and characteristics (Del Boca & Ashmore, 1980). For instance, according to Del Boca and Ashmore (1980) the positively valued characteristics of the male stereotype include competence, rationality, and assertion; whereas the positively valued female characteristics include warmth and expressiveness. In a nutshell, "the typical woman is seen as nice but incompetent, the typical man as competent but maybe not so nice" (Fiske, 1998, p. 377).

Stereotyping involves generalizing beliefs about groups as a whole to members of those groups. When they rely on stereotypes people can categorize others into groups on numerous demographic bases, including gender, religion, and race, and perceptions of specific individuals will be influenced by what people think they know about the group as a whole (Cleveland, Stockdale, & Murphy, 2000). Cleveland and her colleagues stated that gender stereotypes are socially shared beliefs about the characteristics or attributes of men and women in general that influence our perceptions of individual men and women.

Bem (1981) stated that there are individual differences in people's gender role stereotypes, in that some individuals are more gender-typed and hold to more traditional beliefs that women are dependent,

Reducing the Effects of Gender Stereotypes

illogical, and ineffective. Gender-typed individuals view maleness and femaleness as two separate categories, and they rely on their schemata about these notions to evaluate and organize information. On the other hand, individuals who are nongender-typed do not rely to the same extent on gender stereotypes to organize information.

These notions have relevance for performance evaluation. That is, the differences between ratings of men and women may be a consequence of the raters' social-cognitive processes rather than the sex of the rater. Further, because ratings are biased in the direction of the characteristics of the stereotype, the individual differences in raters' stereotypes of women may be biased (DeNisi, Cafferty, & Meglino, 1984). Therefore, raters who hold a traditional stereotype of women will associate women with ineffectiveness and will too often attribute ineffective performance to women. Conversely, raters who believe less strongly in the traditional stereotype of women will not associate women with ineffective performance, and will not overly attribute low performance behaviors to women. In other words, those who do not endorse traditional stereotypes do not view the performance of women as being less effective than that of men and thus do not use a person's gender to aid in the organization/classification of performance information.

Several studies have been conducted to examine the notion that gender-based stereotypes bias performance evaluations (Dobbins et al., 1988; Martell, 1996; Maurer & Taylor, 1994; Robbins & DeNisi, 1993), and all have shown support for this theory. Dobbins et al. (1988) examined the effects of individual differences on the evaluation of hypothetical male and female professors of varying levels of performance. The undergraduates who participated in this study completed the WAPS (Women as Professors Scale) in order to assess their stereotypes of women in the specific role of a professor. If the participant received a low score on the WAPS it was thought to indicate a traditional stereotype of women as professors (i.e., associated women with ineffectiveness). High scores indicated that the individuals do not believe in (or had less strong beliefs in) traditional stereotypes (i.e., women professors were not associated with low performance). In addition, the participants rated the performance of either four fictitious male professors or four fictitious female professors. Dobbins et al. (1988) manipulated ratee gender as a between subjects factor in order to avoid alerting participants that differences between the ratings of men and women were being examined. The researchers found that ratee gender significantly moderated the relationship between stereotype (WAPS scores) and accuracy (as measured by both differential elevation accuracy and average deviation accuracy) of evaluations. In other words, those with a traditional stereotype rated women professors lower than men and rated them less accurately.

Dobbins et al. (1988) argued that underlying gender differences in performance evaluations are a result of the social-cognitive processes of raters. Individuals who hold traditional stereotypes of women often perceive women's performance as an outcome of unstable or situationally derived factors and, as a result, judge it as less worthy and less stable. The raters who used a biased information-processing strategy might have been more likely to associate low performance behaviors with women, which result in inaccurate ratings. This notion is further supported by Martell (1996), who stated that stereotypes lead to differential performance expectations (positive for men and negative for women), which in turn lead to more favorable performance ratings for men than women. Therefore, those with a traditional stereotype of women may rely on the stereotype as a heuristic at the time of the rating, which may result in lower performance ratings for women than men. Maurer and Taylor (1994) replicated and extended the work of Dobbins et al. (1988) with similar results.

Other researchers have found support for the notion that people who have expectations about another individual's performance may adopt a biased decision criterion when rating the person's behaviors (Baltes & Parker, 2000b; Martell; 1996; Martell & Guzzo, 1991; Martell & Willis, 1993). According to Baltes and Parker (2000b), these raters are not relying on their memory, but rather on how prone they are to endorse behaviors that are consistent with their performance expectations and to reject behaviors that are not consistent with their expectations. In other words, when a performance expectation exists, raters evaluate the behaviors that are consistent with their corresponding beliefs as more likely to occur.

Reducing Gender-Based Stereotypes

If some raters have traditional gender stereotypes, which result in a biased decision criterion, we must find a method to correct the problem. It is not feasible to propose that all managers with traditional stereotypes be stopped from making evaluations of women. Therefore, an intervention is necessary in order to reduce the negative effects of gender stereotypes on performance ratings. Social psychology researchers have examined the issue of stereotypes and stereotype reduction quite extensively. The simplest way researchers have found to control stereotypes is to provide information about the target that is inconsistent with stereotypes (for a review, see Fiske & Neuberg, 1990). However, this type of "intervention" cannot realistically be used in real world performance rating situations. That is, we cannot provide stereotype inconsistent information to a recruiter about to interview a potential employee. Other interventions, which may be more applicable to real world performance rating situations, include trying to force raters to control their stereotype or motivate raters to be more accurate. With respect to the first idea, researchers have attempted to force participants to control their stereotypes (Bodenhausen & Macrae, 1996; Wegner, 1994). However, these studies have not often been successful and have actually led to rebound effects where the stereotypes become more powerful than before (Macrae, Milne, & Bodenhausen, 1994). Researchers have also attempted to motivate participants to be more accurate (and thereby to discriminate less) by striving for accuracy and/or by rewarding accuracy (Nelson, Acker, & Manis, 1996; Neslon, Biernat, & Manis, 1990; Snyder, Campbell, & Preston, 1982). These attempts have had mixed results, which led Fiske (1998) to suggest that motivation, although helpful in reducing the impact of stereotypes, cannot cure stereotyping, prejudice, or discrimination. In summary, it seems that most previous research interventions are either not applicable to real world performance rating situations or have not worked consistently in reducing stereotypes. However, another intervention (structured free recall) based on social cognition research that has been recently found to be successful in reducing the influence of externally generated stereotypes (Baltes & Parker, 2000b) may also be successful in reducing gender biases.

In free recall interventions, raters are instructed to recall behaviors that they have observed and to rely on those observations to complete the rating. This should reduce the raters' reliance on judgments, which are influenced by stereotypes, to make their performance ratings. Feldman and Lynch (1988) stated that the accessibility and diagnosticity of information in memory can influence evaluative responses. Diagnosticity refers to whether or not previous judgments or stored information are perceived to be relevant to subsequent judgments, whereas accessibility refers to the ease with which a cognitive construct can be brought into awareness. In other words, accessibility and diagnosticity influence whether a prior cognition will be used as an input to a related judgment. According to Baltes and Parker (2000a), by recalling behaviors that were displayed by the ratee before the performance evaluation, raters should increase the accessibility of these specific memories and increase the likelihood of using these memories when they rate the performance. In essence, a free recall intervention is an attempt to reduce a rater's reliance on an overall judgment of the ratee (which is often biased by stereotypes) by getting the rater to use specific observed behaviors to complete the performance ratings.

Baltes and Parker (2000b) examined the role of a structured free recall intervention in reducing the effects of performance expectations on behavioral ratings. They focused specifically on reducing the "performance cue effect" through a free recall intervention. Performance cues can consist of any overall performance information that has been obtained from sources such as prior employers, employee resumes, and/or prior interviewers. Further, people's ratings can be affected by such performance feedback. Thus, the performance cue effect (PCE) is a phenomenon where expectations of performance can cause a cueconsistent bias in ratings. This cue-consistent bias is caused by heuristic use on the part of the raters. It is similar to the rating bias caused by gender stereotypes. Baltes and Parker found that the structured free recall intervention successfully reduced the performance cue effect. Structured free recall is thought to improve ratings by reducing raters' reliance on heuristics and increasing their reliance on observed behaviors. Therefore, a structured free recall intervention strategy may also be able to remove internal biases like gender stereotype bias from performance ratings.

It should be pointed out that the theory behind the structured free recall strategy is supported by prior social psychology research that has shown that individuating information can reduce reliance on stereotypes (Glick et al., 1988; Locksley et al., 1980, 1982; Pratto & Bargh, 1991; Seta & Seta, 1993). That is, the information recalled by raters could act as information that will reduce raters' reliance on their stereotypes. The difference between the structured free recall intervention and previous research is that the information will be internally generated by the rater instead of being presented to the rater by the experimenter. This is especially important because the only way for an intervention to work in an applied setting is for it not to be dependent on information

Reducing the Effects of Gender Stereotypes

provided by the experimenter, which, as stated above, is typical of previous research on reducing the influence of stereotypes.

The Present Study

Following Dobbins et al. (1988), the present study was designed to examine the effects of individual differences in stereotypes of women on performance ratings of college professors. The role of a professor was chosen as the stimulus profession for several reasons. First, we attempted to replicate and extend the research of Dobbins et al. (1988) and, in doing so, attempted to maintain a similar experimental design. Second, we collected data from undergraduates, and the role of a college professor is one that they can rate with some degree of knowledge and experience.

Lastly, we investigated whether a structured free recall intervention strategy can remove the impact of gender stereotypes from performance ratings. If structured free recall can reduce the impact of other cognitive processes (e.g., performance cues), it is possible that it may also effectively reduce the impact of gender stereotypes on the accuracy and mean level of performance evaluations. Specifically, a structured free recall intervention should successfully reduce the bias in ratings exhibited by raters with traditional stereotypes of women. Therefore, the hypotheses of the present study are as follows: (1) The impact of gender stereotypes on the mean level of performance evaluations will be diminished by a structured free recall intervention; (2) the impact of gender stereotypes on the accuracy of performance evaluations will be diminished by a structured free recall intervention.

METHOD

Participants

Two hundred sixty-five undergraduate students (180 women and 85 men) at a large Midwestern university were recruited to participate in the study. They participated for extra credit in Introductory Psychology courses. Although specific information about age and racial/ethnic group was not collected, the make up of the psychology 1010 classes at the university, from which our sample came, is as follows: mean age = 20.10 years; racial/ethnic background is Black/African American = 28.2%, White = 50.0%,

Materials

The Women as Professors Scale (WAPS)

The WAPS, a 21-item scale, was developed by Dobbins et al. (1988) and is a revision of the Women as Managers Scale (WAMS; Peters, Terborg, & Taynor, 1974). The WAP scale specifically assesses people's stereotype of women in the specific role of a college professor. The coefficient alpha for the WAPS in the present study was .89.

Vignettes

Two vignettes were constructed for use in this study. The two vignettes are similar to vignettes constructed by Dobbins et al. (1988) and Cardy and Kehoe (1984). Each vignette consisted of 20 incidents of classroom behavior that were chosen from Sauser, Evans, and Champion's (1979) 250 scaled incidents of college classroom teaching behavior. The 20 behaviors correspond to five dimensions of instructor performance (ability to present material, interest in course and material, relationship with students, reasonableness of workload, and fairness of testing and grading); four behaviors from each dimension were selected to form the vignette. The vignettes were constructed so that ratees would exhibit a range of performance levels across dimensions. That is, each ratee performed well on some dimensions and average or poorly on others. In order to determine a true score (e.g., the expected ratee performance level) for each vignette we used the same method as Dobbins et al. (1988) and obtained overall true scores of 7.18 and 6.75 for the two vignettes. The 20 critical incident behaviors used to construct the vignettes were pretested in a group of 18 graduate student subjectmatter experts and virtually identical true scores were obtained. For an example of one of the vignettes, see the Appendix.

Performance Rating Scales

The rating measure consisted of 10 11-point behaviorally anchored items. The scales were constructed to measure the five dimensions of instructor performance, and each dimension was measured with two individual items. They were based on the scaled critical incidents developed by Sauser et al. (1979) and were similar to those used by Dobbins et al. (1988). The reliabilities for the two item dimensional scales ranged from .58 to .82.

Procedure

The study was conducted in two phases. First, all participants completed an instrument designed to measure their stereotypes of female professors (the WAP scale) during a mass testing of all students enrolled in Introductory Psychology. Students were then invited to participate in the second phase of the study based on their scores on the mass testing stereotype measure. In the second phase of the study, participants were assigned to one of four conditions: female ratees/no structured free recall; male ratees/no structured free recall; female ratees/structured free recall; and male ratees/structured free recall. After signing the consent form, the participants were given two vignettes of teaching performance that described the behavior of either male or female professors at different levels of performance. The behavior of the men and women in the vignettes was identical, except that gender-relevant terminology was switched.

The information given to the participants about the nature of the ratings was identical to that given by Dobbins et al. (1988). The participants were informed that they were participating in a project designed to identify outstanding teachers and that the ratings would be used by the university "to make personnel decisions affecting the professor's salary, promotion, and tenure status within the university" (p. 553).

After listening to the instructions from the experimenter, the participants studied the first vignette for 5 min. Next, the participants in the structured free recall condition were given 5 min to recall as many positive behaviors as possible that were relevant to the performance dimensions on which they rated the professor. They were then given 5 min more to recall as many negative behaviors as possible (the order of positive and negative behaviors was counter balanced). The participants were asked to record the behaviors on a sheet of paper that listed the five dimensions of instructor performance at the top, and they were then encouraged to refer back to their recall sheets when they completed the performance evaluation. The participants in the control condition followed the same **Bauer and Baltes**

sequence except that, instead of the structure free recall intervention, they completed half of the following distracter tasks before the first vignette and the remainder before rating the second vignette in order to account for the difference in time. The distracter tasks included: Snyder and Gangestad's (1986) 18-item Self-Monitoring Scale; Cacioppo and Petty's (1982) Need for Cognition Scale; Watson, Clark, and Tellegen's (1988) PANAS Scale; Macdonald's (1970) AT-20 Tolerance for Ambiguity Scale; and Webster and Kruglanski's (1994) Need for Closure Scale.

Next, participants in all conditions were given a rating scale with which they rated the performance of the professors. This procedure was then repeated for the second vignette. After completing the second vignette, they were given a manipulation check to assess the gender of the ratee manipulation. Finally, upon completion of all measures, the participants received a verbal debriefing discussing the purpose of the study.

RESULTS

Manipulation Check

Participants were asked to indicate whether or not each of the two professors was male or female. Ninety-three percent of the participants correctly reported the gender of the instructors in the vignettes. Though a 100% impact was not obtained, the gender of the ratee appears to have been manipulated successfully. These results are similar to those of Dobbins et al. (1988), where 88% correctly reported the gender of the instructor.

Mean Level and Accuracy of Ratings

To test the hypotheses, hierarchical regression analyses were performed separately on the accuracy measures to examine the ratee gender by WAPS by intervention type interaction. Each accuracy measure was regressed on gender of the ratee (man or woman), stereotype of women (WAPS score), the intervention type (structured free recall or no structured free recall), and all possible interactions. The nonstandardized and standardized regression weights obtained in these analyses are displayed in Tables I and II, along with the total amount of variance accounted for by the predictor variables. Participant gender was also originally included in all our analyses. However, no

Reducing the Effects of Gender Stereotypes

 Table I. Summary of Regression Analyses Predicting Average Deviation Scores

Variable	N	R^2	В	SEB	β
Model with all participants	247	.054			
WAPS \times RG \times I			407	.310	083
Control group	115	$.071^{*}$			
WAPS Score (WAPS)			.134	.109	.114
Ratee Gender (RG)			200	.174	106
$WAPS \times RG$.515	.218	.217*
Structured free recall condition	132	.014			
WAPS Score (WAPS)			.009	.109	.073
Ratee Gender (RG)			174	.168	091
$WAPS \times RG$.107	.219	.043

Note. WAPS = Women as Professors Scale; RG = Ratee Gender; I = Intervention Type.

p < .05. p < .01 (two-tailed).

main or interaction effect of participant gender was found and thus it was dropped from the analyses.

Mean Level of Ratings

To assess the direction of error (either positive or negative) in the performance ratings, the average (unsquared) deviation between ratings and true levels of performance was computed. This measure was calculated by averaging the deviations across dimensions and ratees. Specifically, negative (positive) deviations indicate ratings that were lower (higher) than the true performance level. Hypothesis 1 states that the impact of gender stereotypes on the mean level of performance evaluations will be diminished by a structured free recall intervention. The results of the hierarchical regression analysis revealed that none of

 Table II. Summary of Regression Analyses Predicting Differential Elevation Scores

Variable	Ν	R^2	В	SE B	β			
Model with all participants	247	.021						
WAPS \times RG \times I			1.186	.510	.148*			
Control group	115	.121**						
WAPS Score (WAPS)			212	.119	159			
Ratee Gender (RG)			.228	.191	.107			
$WAPS \times RG$			786	.239	294**			
Structured free recall condition	132	.017						
WAPS Score (WAPS)			113	.215	046			
Ratee Gender (RG)			325	.331	086			
WAPS \times RG			.401	.432	.081			

Note. WAPS = Women as Professors Scale; RG = Ratee Gender; I = Intervention Type.

p < .05. p < .01 (two-tailed).

the main effects or two-way interactions were significant predictors of average deviation accuracy. The three-way interaction approached, but did not reach, significance (p < .10). The data were then split into the intervention types (control and structured free recall), and the average deviation scores were regressed on gender of the ratee (men or women), stereotypes of women (WAPS score), and the interaction between the two for each group separately. The non-standardized and standardized regression coefficients obtained in this analysis are displayed in Table I, along with the total amount of variance accounted for by the predictor variables.

In the control condition, analyses indicated that the Ratee Gender × WAPS interaction significantly affected the average deviations of ratings, t(111) =2.36, p < .05. As can be seen in Fig. 1, these results indicate that women were evaluated less favorably and with a larger negative bias by raters with more traditional stereotypes of women. However, participants' stereotype of women (i.e., WAPS score) was not significantly related to more or less favorable ratings when men were evaluated.

On the other hand, in the structured free recall condition, the Ratee Gender \times WAPS interaction did not affect the average deviations of ratings (see Fig. 2). Results indicate that raters with traditional stereotypes of women did not evaluate women less favorably than did raters who believed less strongly in the traditional stereotype.

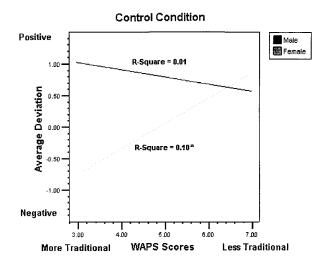


Fig. 1. Depiction of the two-way interaction between Ratee Gender and WAPS score on the average deviation accuracy measure in the control condition. *Note.* WAPS = Women as Professors Scale (*p < .05, **p < .01, two-tailed).

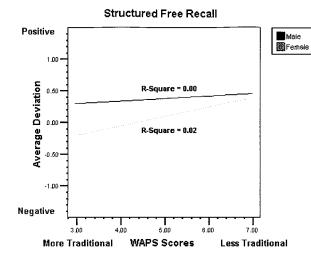


Fig. 2. Depiction of the two-way interaction between Ratee Gender and WAPS score on the average deviation accuracy measure in the structured free recall condition. *Note.* WAPS = Women as Professors Scale (*p < .05, **p < .01, two-tailed).

Accuracy of Ratings

In order to replicate Dobbins et al. (1988), the accuracy of the participants' ratings was also measured using differential elevation, one of Cronbach's (1955) components of accuracy. Differential elevation (DEL) reflects the degree to which a rater differentiates between average ratee performance levels. This accuracy measure was calculated with formulae presented by Murphy, Garcia, Kerkar, Martin, and Balzer (1982). Large accuracy scores reflect inaccurate ratings, whereas small scores reflect accurate ratings. Hypothesis 2 states that the impact of gender stereotypes on the accuracy of performance evaluations will be diminished by a structured free recall intervention. The data support this prediction, as the three-way interaction between ratee gender, WAPS, and intervention type was significant, t(245) = 2.33, p < .05. None of the main effects or two-way interactions were found to be significant. To examine the three-way interaction, the data were then split into the intervention types (control and structured free recall), and the differential elevation scores were regressed on gender of the ratee (men or women), stereotypes of women (WAPS score), and the interaction between the two for each group separately. The nonstandardized and standardized regression coefficients obtained in this analysis are displayed in Table II, along with the total amount of variance accounted for by the predictor variables.

In the control group, the Ratee Gender \times WAPS interaction was significant, thus this interaction sig-

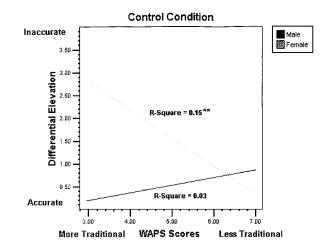


Fig. 3. Depiction of the two-way interaction between Ratee Gender and WAPS score on the differential elevation accuracy measure in the control condition. *Note.* WAPS = Women as Professors Scale (*p < .05, **p < .01, two-tailed).

nificantly affected differential elevation, t(111) = -3.29, p < .01. As can be seen in Fig. 3, these results are consistent with those obtained by Dobbins et al. (1988) and indicate that raters with traditional stereotypes of women less accurately differentiated among average levels of women's performance. Specifically, women were evaluated less accurately by raters with low scores on the WAPS than by raters with high WAPS scores, however, scores on the WAPS were not significantly related to the accuracy with which men were evaluated. However, the Ratee Gender × WAPS interaction was not significant in the structured free recall condition (see Fig. 4). Raters with

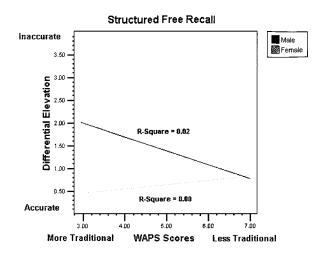


Fig. 4. Depiction of the two-way interaction between Ratee Gender and WAPS score on the differential elevation accuracy measure in the structured free recall condition. *Note.* WAPS = Women as Professors Scale (*p < .05, **p < .01, two-tailed).

Reducing the Effects of Gender Stereotypes

strong traditional stereotypes of women differentiated among average levels of women's performance as accurately as other raters. Thus, it appears that the effects of gender stereotypes can be removed from performance accuracy measures through the implementation of structured free recall.

Overall, the data seem to support both of our hypotheses, as neither of the two-way interactions between Ratee Gender \times WAPS were significant in the structured free recall condition. In other words, gender of the ratee no longer moderated the relationship between accuracy and stereotype in the structured free recall condition.

DISCUSSION

The present study had two main goals: (1) to illustrate the influence of bias on the evaluation of women; and (2) to test an intervention for reducing the impact of this bias. We accomplished these goals by measuring the raters' stereotype of women, and by testing a structured free recall intervention to reduce the impact of this stereotype. Further, the data provide support for both hypotheses. Female ratees were evaluated less accurately by raters with strong traditional stereotypes of women, in the control condition. This result is consistent with Dobbins et al. (1988), who stated that for female ratees who are evaluated by raters with traditional stereotypes of women, the distribution of rewards and sanctions based on a highest-lowest average performance-level criterion will be unequal to that of men, because the differential elevation component of rating accuracy was affected. The average deviation measure of accuracy was also affected, which indicates that individuals with traditional stereotypes evaluate women lower than their true performance level. This suggests that when appraisals are used to make administrative decisions or distribute merit pay, women who are evaluated by raters with traditional stereotypes may receive less positive outcomes than their true performance dictates. However, this effect was not found in the structured free recall condition on either of our dependent measures. Thus, the impact of gender stereotypes on the accuracy of performance evaluations was diminished by a structured free recall intervention. These results also suggest that the structured free recall intervention is successful at reducing internal performance expectations (i.e., gender-based stereotypes) as well as the external performance expectations (i.e., performance cues) found in previous research.

Limitations, Future Directions, and Conclusions

Several limitations to the present study should be mentioned. First, the participants in the study were only evaluating a set of written vignettes that contained limited information. Thus, given the lack of cognitive complexity in the stimulus vignettes, generalizing to actual performance appraisals may be problematic. The criticisms of laboratory research methods could at least be partially overcome if more realistic business environments were duplicated in the laboratory. One methodology that has been utilized in the interest of enhancing external validity of laboratory studies is the use of videotaped performances in lieu of the paper person approach (used in the present study). Further, the use of videotapes has emerged as the preferred methodology because it is assumed to more closely represent "real" information (Woehr & Lance, 1991). Therefore, future researchers should attempt to assess the relationship between rater stereotype and accuracy of ratings using more realistic stimulus materials.

Second, the success of this intervention only generalizes to situations in which the rater has not had much experience with the ratee and has only had a short amount of time to study the ratee's performance (i.e., an interview or assessment center). In this study the raters had only 5 min to study the vignettes. Given this, we do not know if the intervention would be successful in performance appraisal scenarios that deal with longer time frames (e.g., 6-month performance appraisal reviews). Therefore, future researchers should test structured free recall interventions in appraisal situations with different time frames and with different amounts of information provided. However, these results may generalize to situations where evaluations are made based on limited information, such as the personnel selection interview.

Finally, the scale used to assess stereotypes of women allowed us to investigate whether or not a pro-male bias exists, but did not allow us to investigate if pro-female biases influence ratings. Specifically, the participants who received a low score on the WAPS had a traditional stereotype of women as professors (i.e., associated women with ineffective performance), whereas those with high scores did not associate women professors with low performance. However, a high score on the WAPS does not necessarily indicate a pro-female bias but perhaps just a gender-neutral position on the part of the participant. Evidence of pro-female bias has been found in other studies. Specifically, when they examined the main effect of professor gender, Rinehart and Young (1996) found a pro-female difference on two factors of professionalism and instruction. Furnham and Duignan (1989) found that individuals with feminist attitudes tended to recall significantly more pro-female and less pro-male information. A close examination of Figs. 1 and 2 suggests that a pro-female bias may be functioning in the present study. That is, as the regression line for male ratees moves across the WAPS scores from low to high, some individuals who do not believe strongly in the traditional stereotype of women are less accurate than those with traditional stereotypes. Thus, this may be an indication of a pro-female bias, however, it is impossible to examine this theory directly due to the nature of the WAPS scale. It is important to note that when looking at the plotted regression lines, the structured free recall also seems to diminish the impact of the pro-female bias. Thus, it may be interesting for future researchers to examine the potential impact of a pro-female bias on the accuracy of evaluations of men. However, one must keep in mind that the pro-female bias is probably far less prevalent than the pro-male bias. Although there have been some stories in the media on discrimination against men and some cases of reverse discrimination have been won in the U.S. court system (e.g., Regents of the University of California v. Bakke, 1978), there is little objective evidence that men are disadvantaged relative to women (Gutek, Cohen, & Tsui, 1996).

In summary, the results of the present study suggest that women who are evaluated by raters who hold traditional stereotypes of women will be at a disadvantage. However, support for an intervention that successfully reduces the bias was also obtained. This is important, as the intervention is one that can easily and cost-effectively be applied in the workplace. Therefore, a structured free recall intervention could be a useful tool for improving the accuracy of performance ratings in the field that involve low information situations (e.g., interviews). Given this, we believe that the present study has made two important contributions to existing performance appraisal research. First, it extends previous research on gender bias by illustrating the influence of gender stereotypes on the accuracy of evaluations of women. Second, it provides support for an intervention that successfully reduces the bias. These are both important advances in understanding the nature of the gender bias and increasing the fairness of evaluations of women.

APPENDIX

Sample Vignette and True Scores

You should now study the performance of Professor 1. The following statements describe the way he performed during the semester. Remember that this information is based upon actual student descriptions. Please read the entire list of statements closely before filling out any part of the evaluation form.

- His workload was so heavy that only 1 out of 25 passed.
- He assigned general problems in class, then gave specific problems on tests.
- He would sometimes get so involved in the subject matter that he would forget to stop lecturing when the class period was over.
- He passed out a mimeographed sheet giving his office hours and office telephone number.
- He tests materials that were not covered in class.
- He offered extra help sessions at night.
- He assigned two papers a week, seven outside books, a textbook, and classroom work for a 2-hr course.
- He has difficulty explaining things simply enough for his students to understand.
- He has a bad accent and is hard to understand.
- He described his own fascination with the material that he was covering.

True scores. The true scores for the above vignette were 8.9 (Relationship With Students), 2.8 (Ability to Present Material), 7.8 (Interest in Course Material), 1.1 (Reasonableness of Workload), and 3.0 (Fairness of Testing and Grading).

REFERENCES

- Arvey, R. D. (1979). Unfair discrimination in the employment interview: Legal and psychological aspects. *Psychological Bulletin*, 86, 736–765.
- Baltes, B. B., & Parker, C. P. (2000a). Clarifying the role of memory in the performance cue effect. *Journal of Business and Psychology*, 15, 229–246.
- Baltes, B. B., & Parker, C. P. (2000b). Reducing the effects of performance expectations on behavioral ratings. *Organizational Behavior and Human Decision Processes*, 82, 237–267.
- Bem, S. L. (1981). Gender schema theory: A cognitive account of sex typing. *Psychological Review*, 88, 354–364.
- Bodenhausen, G. B., & Macrae, C. M. (1996). The self-regulation of intergroup perception: Mechanisms and consequences of stereotype suppression. In C. M. Macrae, C. Stangor, & M. Hewstone (Eds.), *Stereotypes and stereotyping* (pp. 227–253). New York: Guilford.

Reducing the Effects of Gender Stereotypes

- Cacioppo, J. T., & Petty, R. E. (1982). The need for cognition. *Journal of Personality and Social Psychology*, 42, 116–131.
- Cardy, R. L., & Kehoe, J. F. (1984). Rater selective attention ability and appraisal effectiveness: The effect of cognitive style on the accuracy of differentiation among ratees. *Journal of Applied Psychology*, 69, 589–594.
- Cleveland, J. N., Stockdale, M., & Murphy, K. R. (2000). Women and men in organizations: Sex and gender issues at work. Mahwah, NJ: Erlbaum.
- Cronbach, J. L. (1955). Processes affecting scores on understanding of others and "assumed similarity." *Psychological Bulletin*, 52, 177–193.
- Davison, H. K., & Burke, M. J. (2000). Sex discrimination in simulated employment contexts: A meta-analytic investigation. *Journal of Vocational Behavior*, 56, 225–248.
- Deaux, K., & Taynor, J. (1973). Evaluation of male and female ability: Bias works two ways. *Psychological Reports*, 32, 261– 262.
- Del Boca, F. K., & Ashmore, R. D. (1980). Sex stereotypes and implicit personality theory. II. A trait-inference approach to the assessment of sex stereotypes. Sex Roles, 6, 519–535.
- Del Boca, F. K., Ashmore, R. D., & McManus, M. A. (1986). Gender-related attitudes. In R. D. Ashmore & F. K. Del Boca (Eds.), *The social psychology of female-male relations: A critical analysis of central concepts* (pp. 121–163). Orlando, FL: Academic Press.
- DeNisi, A., Cafferty, T., & Meglino, B. (1984). A cognitive view of the performance appraisal process: A model and some research propositions. Organizational Behavior and Human Decision Processes, 33, 360–396.
- Dobbins, G. H., Cardy, R. L., & Truxillo, D. M. (1988). The effects of purpose of appraisal and individual differences in stereotypes of women on sex differences in performance ratings: A laboratory and field study. *Journal of Applied Psychology*, 73, 551–558.
- Feldman, J. M., & Lynch, J. G. (1988). Self-generated validity and other effects of measurement on belief, attitude, intention, and behavior. *Journal of Applied Psychology*, 73, 421–435.
- Fishbein, M., & Ajzen, I. (1975). Belief, attitude, intention, and behavior: An introduction to theory and research. Reading, MA: Addison-Wesley.
- Fiske, S. T. (1991). Social science research on trial: Use of sex stereotyping research in Price Waterhouse v. Hopkins. American Psychologist, 46, 1049–1060.
- Fiske, S. T. (1998). Stereotyping, prejudice, and discrimination. In. D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *Handbook of social psychology* (pp. 357–411). Cambridge, MA: McGraw-Hill.
- Fiske, S. T., & Neuberg, S. L. (1990). A continuum model of impression formation: From category-based to individuating processes as a function of information, motivation, and attention. In M. P. Zanna (Ed.), *Advances in experimental psychology* (Vol. 23, pp. 1–108). San Diego, CA: Academic Press.
- Furnham, A., & Duignan, S. (1989). The selective recall of attitude consistent information: A study concerning sex differences. *Psychologia*, 32, 112–119.
- Glick, P., Zion, C., & Neslon, C. (1988). What mediates sex discrimination in hiring decisions? *Journal of Personality and Social Psychology*, 55, 178–186.
- Goldberg, P. A. (1968). Are women prejudiced against women? Transactions, 5, 28–30.
- Gordon, M. E., Slade, L. A., & Schmitt, N. (1986). The "Science of the Sophomore" revisited: From conjecture to empiricism. *Academy of Management Review*, 11, 191–207.
- Gunderson, D. E., Tinsley, D. B., & Terpstra, D. E. (1996). Empirical assessment of impression management bias: The potential for performance appraisal error. *Journal of Social Behavior and Personality*, 11, 57–76.

- Gutek, B. A., Cohen, A., & Tsui, A. (1996). Reactions to perceived sex discrimination. *Human Relations*, 49, 791–813.
- Hamner, W. C., Kim, J. S., Baird, L., & Bigoness, W. J. (1974). Race and sex as determinants of ratings by potential employers in a simulated work-sampling task. *Journal of Applied Psychology*, 59, 705–711.
- Jako, R. A., & Murphy, K. R. (1990). Distributional ratings, judgement decomposition, and their impact on interrater agreement and rating accuracy. *Journal of Applied Psychology*, 75, 500– 505.
- Kalin, R., & Hodgins, D. C. (1984). Sex bias in judgments of occupation suitability. *Canadian Journal of Behavioral Science*, 16, 311–325.
- Locksley, A., Borgida, E., Brekke, N., & Hepburn, C. (1980). Sex stereotypes and social judgment. *Journal of Personality and Social Psychology*, 39, 821–831.
- Locksley, A., Hepburn, C., & Ortiz, V. (1982). Social stereotypes and judgments of individuals: An instance of the baserate fallacy. *Journal of Experimental Social Psychology*, 18, 23–42.
- Macdonald, A. P. (1970). Revised scale for ambiguity tolerance: Reliability and validity. *Psychological Reports*, 26, 791–798.
- Macrae, C. N., Milne, A. B., & Bodenhausen, G. V. (1994). Stereotypes as energy-saving devices: A peek inside the cognitive toolbox. *Journal of Personality and Social Psychology*, 66, 37– 47.
- Martell, R. F. (1996). What mediates gender bias in work behavior ratings? Sex Roles, 35, 153–169.
- Martell, R. F., & Guzzo, R. A. (1991). The dynamics of implicit theories of work group performance: When and how do they operate? Organizational Behavior and Human Decision Processes, 50, 51–74.
- Martell, R. F., & Willis, C. E. (1993). Effects of observer's performance expectations on behavior ratings of work groups: Memory response bias? Organizational Behavior and Human Decision Processes, 56, 91–109.
- Martinko, M., & Gardner, W. (1983). A methodological review of sex-related access discrimination problems. Sex Roles, 18, 23– 42.
- Maurer, T. J., & Taylor, M. A. (1994). Is sex by itself enough? An exploration of gender bias issues in performance appraisal. Organizational Behavior and Human Decision Processes, 60, 231–251.
- Mobley, W. H. (1982). Supervisor and employee race and sex effects on performance appraisals: A field study of adverse impact and generalizability. *Academy of Management Journal*, 25, 598– 606.
- Murphy, K. R., Garcia, M., Kerkar, S., Martin, C., & Balzer, W. K. (1982). Relationship between observational accuracy and accuracy in evaluating performance. *Journal of Applied Psychol*ogy, 67, 320–325.
- Nelson, T. E., Acker, M., & Manis, M. (1996). Irrepressible stereotypes. Journal of Experimental Social Psychology, 32, 13–38.
- Nelson, T. E., Biernat, M. R., & Manis, M. (1990). Everyday base rates (sex stereotypes): Potent and resilient. *Journal of Personality and Social Psychology*, 59, 664–675.
- Nieva, V. F., & Gutek, B. A. (1980). Sex effects on evaluation. Academy of Management Review, 5, 267–276.
- Pazy, A. (1986). The persistence of pro-male bias despite identical information regarding causes of success. Organizational Behavior and Human Decision Processes, 38, 366–377.
- Peters, L. H., Terborg, J. R., & Taynor, J. (1974). Women as managers scale: A measure of attitudes toward women in managerial positions. *Journal Supplement Abstract Service Catalog of Selected Documents in Psychology*, 4, 27.
- Pratto, F., & Bargh, J. A. (1991). Stereotyping based on apparently individuating information: Trait and global components of sex stereotypes under attention overload. *Journal of Experimental Social Psychology*, 27, 26–47.

- Pulakos, E. D., White, L. A., Oppler, S. H., & Borman, W. C. (1989). Examination of race and sex effects on performance ratings. *Journal of Applied Psychology*, 74, 770–780.
- Regents of the University of California v. Bakke. (1978). U.S. Law Weekly, 49, 4896.
- Rinehart, J. S., & Young, I. P. (1996). Effects of teacher gender and principal gender on the ratings of teacher performance. *Journal of Personnel Evaluation in Education*, 10, 313– 323.
- Robbins, T. L., & DiNisi, A. S. (1993). Moderators of sex bias in the performance appraisal process: A cognitive analysis. *Journal* of Management, 19, 113–126.
- Sauser, W. I., Evans, K. L., & Champion, C. H. (1979). Two hundred and fifty scaled incidents of college classroom behavior. Paper presented at the Southeastern Psychological Association annual conference, New Orleans.
- Seta, J. J., & Seta, C. E. (1993). Stereotypes and the generation of compensatory and noncompensatory expectancies of group members. *Personality and Social Psychology Bulletin*, 19, 722– 731.
- Shaw, E. A. (1972). Differential impact of negative stereotyping in employee selection. *Personnel Psychology*, 25, 333–338.
- Sidanius, J., & Crane, M. (1989). Job evaluation and gender: The case of university faculty. *Journal of Applied Social Psychol*ogy, 19, 174–197.
- Snyder, M., Campbell, B. H., & Preston, E. (1982). Testing hypotheses about human nature: Assessing the accuracy of social stereotypes. *Social Cognition*, 1, 256–272.

- Snyder, M., & Gangestad, S. (1986). On the nature of selfmonitoring: Matters of assessment, Matters of validity. *Journal* of Personality and Social Psychology, 51, 125–139.
- Swim, J., Borgida, E., Maruyama, G., & Myers, D. G. (1989). Joan McKay versus John McKay: Do gender stereotypes bias evaluations. *Psychological Bulletin*, 105, 409–429.
- Swim, J. K., & Sanna, L. J. (1996). He's skilled, she's lucky: A metaanalysis of observers' attributions for women's and men's successes and failures. *Personality and Social Psychology Bulletin*, 22, 507–519.
- Thompson, D. E., & Thompson, T. A. (1985). Task-based performance appraisal for blue-collar jobs: Evaluation of race and sex effects. *Journal of Applied Psychology*, 70, 747–753.
- Watson, D., Clark, L., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS Scale. *Journal of Personality and Social Psychology*, 54, 1063–1070.
- Webster, D. M., & Kruglanski, A. W. (1994). Individual differences in need for cognitive closure. *Journal of Personality and Social Psychology*, 67, 1049–1062.
- Wegner, D. M. (1994). Ironic processes of mental control. Psychological Review, 101, 34–52.
- Woehr, D. J., & Lance, C. E. (1991). Paper people versus direct observation: An empirical examination of laboratory methodologies. *Journal of Organizational Behavior*, 12, 387–397.
- Yammarino, F. J., & Dubinsky, A. J. (1988). Employee responses: Gender—or job-related differences? *Journal of Vocational Behavior*, 32, 366–383.

P&T Good and Bad Practices

Observations from Matt O'Donnell, Frank & Julie Jungers Dean of Engineering, University of Washington

Good

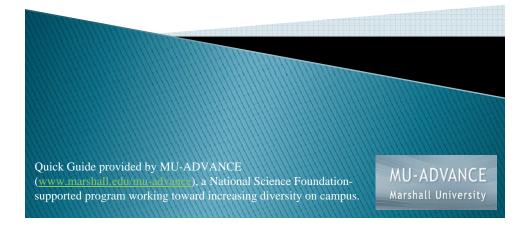
- Clearly defined and published departmental promotion & tenure criteria in general, every department should have well defined workload and service policies voted on by the faculty and published yearly.
- The department should make the difference between Class A and Class B letters clear to the candidate. The department should perform due diligence on the referee lists to ensure that there are no hidden collaborations.
- Describe all contributions of candidate to collaborations, including drivers on publications and fraction of funding (e.g., subcontracts).
- Candidate should note all publications with students there should be a simple system to highlight publications with mentored students as the primary author helps to monitor student mentoring activities.
- Candidate encouraged to provide citations to publications can be commented, but information should be provided, especially for promotion to full professor
- Candidate encouraged to provide tech transfer information looking for impact beyond the academy
- Candidate should distinguish between competitive and non-competitive funding
- Journal quality each journal a candidate publishes in should be discussed by the department with its impact factor presented
- Evaluation of conference quality each conference a candidate publishes in should be discussed by the department
- Government adoption e.g., standards developed by the candidate that have been adopted by a government agency or standards organization looking for impact beyond the academy
- Peer review of teaching, including classroom observation.
- Compare teaching evaluations for candidate to means and standard deviations within the department of evaluations in the same course.

Bad

- Full professors are strongly preferred as letter writers letters from associate professors often have to be interpreted.
- Letter writers should only come from top departments with stellar research credentials

Quick Start Guide to Tenure and Promotion

- 1. Get copies of your university, college, and department/division policies for tenure and promotion. If your offer letter includes statements of expectations you must meet to earn tenure, add the letter to your file of overall expectations. Always know where these items are and refer to them often.
- 2. If your offer letter includes a statement giving you years of credit toward tenure and promotion based on work at another institution, you must document that previous work in the same way that you document your work at Marshall. Collect and/or save such documentation as soon as you can.
- 3. Publications and creative works are essential for tenure or promotion in most colleges. Try to get an idea of how many, and of what quality, of these products are required.
- 4. Consider serving on one college committee, one university committee, and one community agency or activity on a regular basis. Multiple years of service at the same activity can be efficient and effective. You may do much more than this, but prior to tenure your service activity should be limited while you get your scholarly or creative work underway, and get your teaching well established. Learn to say no unless you absolutely know that the activity will help you gain tenure. It is critical, however, that you do your share of work within the department.
- 5. Attend all department and college programs for pre-T&P faculty.
- 6. Treat every annual evaluation as a way of documenting each year's progress toward T&P save everything!
- 7. Ask your chairperson or division head for a yearly consultation on your progress toward tenure and promotion.



- 8. Get to know people in and out of your department.
- 9. Save documentation of everything you do that falls within your T&P guidelines: letters of appreciation, publications, letters of acceptance to conferences and for publications; dates of conferences you attend; dates and audiences of workshops, talks, and speeches you give; copies of conference programs that have your contributions listed; dates and titles of all faculty development activities you attend; list dates and names of all committees you serve on (department, college, university, community) get documentation of service if possible; describe your contribution to jointly authored works; know whether conferences and publications are refereed; list all grant applications submitted (whether awarded or not); and document all awards and honors received.
- 10. Ask for a third year (mid-tenure) review if this is not a standard operating procedure in your department. The portfolio for this review forms the basis for the first part of your "real" tenure or promotion portfolio.
- 11. Record the names of students you work with for independent study, research, and in your labs. Record titles and dates of joint projects or independent studies.
- 12. Your course names and enrollments are always available on MyMU and MU BERT. Learn how to access your teaching records through these systems.
- 13. Save your student course evaluations. Save the summaries of your department evaluations as well. You should be able to compare your student ratings with the department or college as a whole.
- 14. Keep all classroom observation reports from your peers and/or chair. Know how many of these peer observations are required by your college or department.

As you approach tenure and promotion decisions:

- 1. Find out who is on the department and college T&P committees.
- 2. Ask to see successful T&P portfolios many faculty will gladly show you theirs.
- You can only apply for tenure in the year that is indicated in your offer letter. While you must meet the minimum number of years specified in the Greenbook to apply for promotion, whether you apply at this minimum or at a later time is your decision.
 - Consult with your department head and senior colleagues before making your decision.



TEN(+) TIPS FOR TENURE

PRESENTED BY

DR. SUZANNE OSTRAND-ROSENBERG, PROFESSOR BIOLOGICAL SCIENCES DR. D. TIMMIE TOPOLESKI, PROFESSOR MECHANICAL ENGINEERING

- 1) TALK TO YOUR CHAIR AND UNDERSTAND DEPARTMENTAL EXPECTATIONS The day you start your job, meet with your chair to discuss his/her expectations. Never assume you know what is required.
- 2) QUALITY TEACHING IS IMPORTANT FOR ACHIEVING TENURE AT UMBC Realize that the first time you teach a course it will be time consuming. Work with your chair to re-teach the same course in future semesters. Remember that you need to balance your research, teaching and service.
- **3) ESTABLISH YOURSELF AS AN INDEPENDENT RESEARCHER** Make a clean break from your graduate or post-doctoral research advisor. Be certain to have a body of research work that is independent.
- **4)** As a JUNIOR FACULTY MEMBER, DO NOT GET OVERLOADED WITH SERVICE Realize that service is an important component of tenure but you must maintain balance. If you feel you are being asked to do too many service jobs, discuss the situation with your chair and with senior faculty.
- 5) SUBMIT YOUR FIRST GRANT BEFORE YOU START AT UMBC (OR SOON THEREAFTER) You will be very busy with teaching and other activities once you start your new job and won't have much time to think about grants.

6) CAST YOUR NET WIDELY

Pursue ALL potential grant opportunities, e.g. start-up grants, career development awards, foundation grants. Don't just apply to the large funding agencies.

7) NO SURPRISES!

Get to know the mechanics of the tenure process, what you can expect and what is expected of you (e.g. the evaluation process, requirement for letters from outside senior investigators in your field, URFC role, rebuttal process, etc.).

8) ESTABLISH A RELATIONSHIP WITH A SENIOR COLLEAGUE, PREFERABLY IN YOUR DEPARTMENT

This should be someone who has gone through the process himself or herself and will meet with you regularly (e.g. one time per year) to review your teaching, research and service status.

9) SET YOUR OWN GOALS

As ambitious talented people, your goals probably exceed the tenure requirements. Don't try to do too much and dilute your impact.

10) ATTEND CONFERENCES AND PRESENT YOUR RESULTS

Do this whenever possible so you become known in your field, so that you have colleagues you can suggest for outside reviewers. Work with your chair to send you to conferences. Travel money for junior faculty is available from professional societies, from the UMBC provost, etc.

11) PUBLISH YOUR PAPERS PROMPTLY

Don't leave writing your papers to the year or two before you are up for tenure. Assume it may take multiple submissions for them to be accepted.

12) PAY ATTENTION TO YOUR **3**RD YEAR REVIEW COMMENTS

This is your department's first formal feedback, review it with your Chair and/or senior colleague (mentor).

13) TAKE ADVANTAGE OF RESOURCES ON CAMPUS

E.g. ADVANCE, Faculty Development Center, AGEP

14) STICK TO YOUR GUNS AND DON'T TAKE IT PERSONALLY

If your grants and/or papers are not funded/accepted the first time around, keep trying!

15) UMBC WANTS YOU TO BE SUCCESSFUL!

If you have problems or need help, seek out assistance, sooner rather than later.

For the most up-to-date information on PROMOTION and TENURE policies from the UMBC Faculty Handbook, please visit **www.umbc.edu/provost** and click on the Faculty Handbook link.

This workshop is a part of the Faculty ADVANCEment Workshop Series, funding for which is provided by the NSF.

Why So Slow? The Advancement of Women

Virginia Valian

The MIT Press Cambridge, Massachusetts London, England First paperback edition, 1999 First MIT Press paperback edition, 1999 © 1998 Massachusetts Institute of Technology

All rights reserved. No part of this book may be reproduced in any form by any electronic or mechanical means (including photocopying, recording, or information storage and retrieval) without permission in writing from the publisher.

This book was set in Sabon on the Miles 33 typesetting system by Graphic Composition, Inc. and was printed and bound in the United States of America.

Library of Congress Cataloging-in-Publication Data

Valian, Virginia.
Why so slow? : the advancement of women / Virginia Valian p. cm.
Includes bibliographical references and index.
ISBN 0-262-22054-7 (hardcover : alk paper)--0-262-72031-0 (pb)
1. Sex discrimination against women-Psychological aspects.
2. Sexism. 3. Women in the professions. 4. Sex differences
(Psychology) I. Title.
HQ1237.V35 1997
305.42--dc21 96-37029

96-37029 CIP

1098765

Gender Schemas at Work

The term *glass ceiling* has become a popular way of referring to the scarcity of women at the top levels of organizations. The phrase suggests that invisible factors—as much as, or more than, overt discrimination—keep women from rising to the top. It also assumes that those hidden influences are unlikely simply to disappear over time; a ceiling is not a structure that evanesces. Finally, the term suggests that women's job performance is at least the equal of their male peers'; a ceiling is something that keeps people down despite their competence. All three assumptions, I will argue, are correct. There *are* invisible barriers; they will not go away on their own; any objective differences in performance are insufficient to explain existing sex differences in salary, rank, and rates of promotion.

There are also, of course, visible problems for women in the workplace, of which sexual assault and harassment are the most obvious examples. I do not discuss those abuses, despite their importance, because I want to explain women's lack of achievement in situations where nothing seems to be wrong. Even in apparently egalitarian environments, women do not advance as far or as rapidly as men. Something invisible limits their progress.

But if there are invisible factors at work, what are they, and how do they operate? My goal in this book is to make the invisible visible: to show what retards women's progress, so that fair and accurate evaluations of men and women will become possible. To do so, I draw on concepts and data from psychology, sociology, economics, and biology.

What Holds Up the Glass Ceiling?

Gender Schemas

The central thesis of this book is that a set of implicit, or nonconscious, hypotheses about sex differences plays a central role in shaping men's and women's professional lives. These hypotheses, which I call *gender schemas*, affect our expectations of men and women, our evaluations of their work, and their performance as professionals.¹ Both men and women hold the same gender schemas and begin acquiring them in early childhood. Their most important consequence for professional life is that men are consistently overrated, while women are underrated. Whatever emphasizes a man's gender gives him a small advantage, a plus mark. Whatever accentuates a woman's gender results in a small loss for her, a minus mark.

We are accustomed to calling our conceptions of certain groups *stereo-types*. The word is misleading, for it implies that something is fundamentally wrong with having such concepts. But hypothesis formation is a natural and essential human activity; it is the way we make sense of the world. We all form hypotheses about social groups. Such hypotheses may contain primarily positive characteristics, mostly negative ones, only neutral ones, or some combination of all three. The word *stereotype* refers to one kind of hypothesis, but *schema* is a better, more inclusive, term. It is not the attempt to develop schemas that is wrong, but the errors that can inadvertently creep into the formation, maintenance, and application of schemas.

Gender schemas are usually unarticulated. Their content may even be disavowed. Most men and women in the professions and academia explicitly, and sincerely, profess egalitarian beliefs. Conscious beliefs and values do not, however, fully control the operation of nonconscious schemas. Egalitarian beliefs help, but they do not guarantee accurate, objective, and impartial evaluation and treatment of others. Our interpretations of others' performance are influenced by the unacknowledged beliefs we all—male and female alike—have about gender differences.

Although most people want to judge fairly, genuine fairness demands that we understand that our reactions to an individual are, inevitably, affected by the group the person belongs to. Our implicit ideas about men and women as a whole condition our reactions to men and women as individuals. Only by recognizing how our perceptions are skewed by nonconscious beliefs can we learn to see others, and ourselves, accurately. Fairness requires a more sophisticated understanding of social perception than most of us acquire in the ordinary course of life. To be really fair, we need to know what perceptual distortions are likely and what steps we can take to perceive others more accurately.

Thus, although this book is about a particular set of schemas, it can also be seen as a case study of the more general problem of ensuring fair evaluations for members of any group. Schemas based on sex, age, race, class, or sexual orientation have different contents, but all schemas influence how we perceive and treat group members. Only by discovering a schema's content and mode of operation can we make our evaluations of individuals fairer.

Accumulation of Advantage

The long-term consequences of small differences in the evaluation and treatment of men and women also hold up the glass ceiling. A useful concept in sociology is the accumulation of advantage and disadvantage (J. Cole & Singer 1991; Fox 1981, 1985; Long 1990; Merton 1968).² It suggests that, like interest on capital, advantages accrue, and that, like interest on debt, disadvantages also accumulate. Very small differences in treatment can, as they pile up, result in large disparities in salary, promotion, and prestige. It is unfair to neglect even minor instances of group-based bias, because they add up to major inequalities.

A computer model of promotion practices at a hypothetical corporation convincingly demonstrates the cumulative effects of small-scale bias (Martell, Lane, & Emrich 1996). The simulation created an organization with an eight-level hierarchy staffed at the bottom level by equal numbers of men and women. The model assumed that over time a certain percentage of incumbents would be promoted from one level to the next. It also assumed a tiny bias in favor of promoting men, a bias accounting for only 1 percent of the variability in promotion. The researchers ran the simulation through a series of promotions. After many series, the highest level in the hierarchy was 65 percent male. The model shows clearly that even minute disadvantages can have substantial long-term effects. In fact, the simulation *under*estimates the problem women have in rising to the top, for it reflects only what occurs at the stage of promotion. At every point along the path to the first promotion possibility, however, advantages or disadvantages can accumulate. If conditions for women are only very slightly unfavorable along the way, they are less likely even to be considered for promotion.

One example of how advantage and disadvantage can accrue occurs in a common professional setting—the meeting. Let's say I am attending a meeting with a group of people who know each other but whom I have never met. I notice that some people's comments are taken seriously by the group, while other people's are ignored. Although my assessment of individual participants is formed in part by my own evaluation of the content of their remarks, I cannot always independently evaluate that content. Further, I am likely to be influenced by the reactions of others in the group. Through observing the group dynamics, I learn who has high status and who does not. By the time the meeting ends, people who were equal in my eyes when it began are unequal.

Those whose remarks were ignored have suffered a small loss in prestige, and their contributions have been labeled, implicitly, as low in value. Because they now have less prestige, they will be listened to less in the future; they will carry their previously earned labels into the next professional encounter, losing a little more standing with each negative experience. The gap between them and people who are gaining attention for their remarks will widen as their small initial failures accrue and make future failures more likely.

Successful people seem to recognize that one component of professional advancement is the ability to parlay small gains into bigger ones. Ambitious people worry if their comments are ignored and are pleased if they are taken seriously. A series of disregarded comments can signal failure, while remarks discussed by superiors and coworkers contribute to success. If everyone understood explicitly what some people understand implicitly—that success comes from creating and consolidating small gains—no one would counsel women to ignore being ignored. The concept of the accumulation of advantage lets us see that the well-meaning advice often given to women—not to make a mountain out of a molehill—is mistaken. That advice fails to recognize that mountains *are* molehills, piled one on top of the other. Fairness requires appreciating the importance of each molehill of advantage and disadvantage and taking steps to ensure that molehills do not accrue to individuals on the basis of their group membership.

But even that is not enough. Everyone must also understand that in most organizations women begin at a slight disadvantage. A woman does not walk into the room with the same status as an equivalent man, because she is less likely than a man to be viewed as a serious professional. Moreover, since her ideas are less likely to be attended to than a male peer's, she is correspondingly less likely to accumulate advantage the way he might. A woman who aspires to success *needs* to worry about being ignored; each time it happens she loses prestige and the people around her become less inclined to take her seriously.

The concept of the accumulation of advantage explains another, otherwise puzzling, difference between men and women: women talk less in public and professional settings than men do (see discussion in Haslett, Geis, & Carter 1992).³ Let us assume that women know—through experience-that their remarks are likely to be ignored. They may then correctly infer that they are better off not speaking and staying at their current level than making a comment and accruing a disadvantage. Saying nothing exacts its own toll, for no one acquires prestige through silence. Still, the tacit loss brought about by saying nothing is smaller than the explicit loss of prestige incurred by speaking and being ignored. A slower accumulation of disadvantage is, on a rational analysis, preferable to a faster accumulation of disadvantage. I am not suggesting that women explicitly or consciously formulate such a policy, only that it is rational: women risk less disadvantage overall by remaining silent. (We can also interpret women's behavior more simply: being ignored is painful and humiliating, and people seek to avoid pain.)

This may be a good time to emphasize that, although I speak of *women*, I am not claiming that what is true of women in general is true of every woman on every occasion. Nor do I argue that men are never ignored in favor of women. At a recent faculty meeting, in fact, I observed a reversal of the usual effect. The chair of my department gave me the credit for an excellent comment that a junior male colleague had made earlier in the meeting. (I was so bemused and amused by the reversal that

I failed to correct him.) The exceptions should not, however, obscure the rule. The existence of an exceptional woman who frequently speaks out in public settings and whose contributions are acknowledged and valued does not invalidate the rule that women in general have lower professional status than men and are less likely than men to profit from their positive contributions.

Schemas, Exceptions, and Fairness

Several problems are encountered in efforts to ensure fairness. One of them is convincing ourselves that our judgments really are prone to error. We all want to believe we are unbiased and unaffected by stereotypes we have consciously rejected. We are convinced that we know quality when we see it. Even people who are overtly prejudiced think they can judge others impartially; the facts, they believe, speak for themselves.

A compelling laboratory experiment, however, demonstrates that people are unable to evaluate others accurately, even when a completely straightforward quality like height is involved (Biernat, Manis, & Nelson 1991). In this experiment, college students were shown photographs of various people and asked to guess their heights in feet and inches (including shoes). The photos always contained a reference item, such as a desk or a doorway, to help students with their estimates.

Without telling the students, the experimenters chose the test items so that every photograph of a male student of a given height was matched by a picture of a female student of the same height. Here, then, was an easily visible characteristic that could be measured in objective units feet and inches—rather than in subjective terms like *short* and *tall*. The students' judgments should have been accurate. They were not. They were affected by one component of gender schemas—the knowledge that men are, on average, taller than women. When exposed to a sample contrary to the general rule, the students saw the women as shorter and the men as taller than they actually were.

Using a scale marked in objective units does not, therefore, prevent error. (Of course, if the students had had an actual ruler they could have estimated the heights more accurately.) If people have a schema about gender differences, that schema spills over into their judgments. The problem is exacerbated when the schema is accurate—as it is in the case of height differences—because erroneous judgments of individuals are supported by real overall differences between groups. Individuals who diverge from the schema are perceived in the light of the observers' schemas. The implications for judgments of professional competence are clear. Employers faced with a man and a woman matched on the qualities relevant to success in a particular field may believe they are judging the candidates objectively. Yet, if their schemas represent men as more capable than women, they are likely to overestimate the male's qualifications and underestimate the female's.

A second problem in the attempt to ensure fair evaluations is that people find creative ways to justify their perceptions. To take one example, to reassure themselves—and others—that they have rejected stereotypical attitudes or can judge fairly in spite of them, people point to professional women they admire and respect. For another example, people point to women who are successful as evidence that hiring and promotion practices are based on merit. Finally, people use examples of incompetent women to explain women's overall lack of success.

Such examples, however, are irrelevant if they are not representative of the general population. My claim is that they are not. They are atypical—exceptions to a general rule confirmed by the preponderance of the evidence. Examples that represent exceptions do not refute general findings. For instance, on Wall Street in 1996 only 8 percent of the managing directors were women (Truell 1996). Each of the women in that 8 percent is an exception someone might cite as evidence that women can succeed in the investment business. Invalidation of a general rule, however, requires proof that the rule typically does not hold; it is not good enough to show that it occasionally fails to apply. The existence of successful women shows that *some* women are evaluated positively *some* of the time. Fairness demands much more: the guarantee that there is no consistent advantage for members of one group relative to another.

Gender Schemas at Work

Keeping in mind the obstacles to ensuring fairness, we can consider the story of a university department. During the past ten years fifteen men and three women were added to the faculty. When he is queried about the ratio, the chair of the department explains that his only interest is to hire the best, most able, people in order to build the strongest possible department. He makes it clear to search committees that quality is the only issue, and informs them of his views of the candidates. He is sincere in his belief that he is gender-blind and confident of his ability to judge others' competence. And, since the people he chooses *are* able, he has no reason to doubt his judgment or leadership. Even if he were to track the careers of the women he failed to hire, he would probably not question his decisions. Those women are likely to have been undervalued by other prospective and actual department chairs and to have, as a result, careers that are on average less stellar than those of the men he hired.

For the chair to see that the facts call for more self-doubt, he needs an education in social cognition and gender. He needs, first, to learn that people are likely to misperceive men and women in professional settings, to overrate the former and underrate the latter. Clear marks of prestige, ranging from having a degree from an elite institution to sitting at the head of a table, are interpreted differently, depending on whether the person is a man or a woman (see chapters 7, 10, and 11). Even judgments of height, as described earlier, are affected by the person's gender.

Second, the chair needs to understand how errors of evaluation mount up over time and affect the career trajectories of young professionals and Ph.D.s. Data suggesting that women must meet higher standards than men to gain promotion, partnership, or tenure (see chapters 10 to 12) demonstrate the detrimental consequences of the accumulation of disadvantage, showing for example, that only a few years after earning their degrees, young men and women with the same on-paper qualifications have different professional lives. Finally, the chair needs to learn how expectations of men's and women's achievements can affect their actual performance, as well as their aspirations.

He needs, in short, to see that his confidence is misplaced, that it is the product of ignorance. (He needs this book!) He is unlikely to be exempt from the processes that affect everyone else, unlikely to have equally high expectations of men and women, and unlikely to know how to change his perceptions and decisions to adjust for the advantages men have incorrectly received. He believes he is different, but that is what everyone thinks—just as we all think we are above average. Even those who are actively concerned about gender equality are affected by gender schemas;

the odds are that he is, too. As a good scholar, he should entertain the possibility that his judgments are skewed and consider what steps he can take to make them more accurate. He needs, in sum, a better theory and better data. Then he can be more alert to the pitfalls inherent in making judgments about ability.

Not long ago, a new grandfather happened to read a draft of chapter 2, "Gender Begins—and Continues—at Home" just before meeting his infant granddaughter for the first time. As he held her in his arms he said automatically, "You're so soft"—which of course she was. As the words reverberated in his ear, they reminded him of the data he had just read about fathers' misperceptions of infants' characteristics. He paused, squeezed the baby gently, and added, "and firm"—which of course she also was. There is nothing like observing yourself in the act of an inaccurate or partial perception to engender humility about your freedom from gender schemas and to help you change your perceptions.

In the remainder of this introduction, I touch on some of the issues related to the origins of gender schemas and their role in the professional lives of women. In the ensuing chapters I supply the experimental and observational data that support my claims, develop my argument that common cognitive processes are at the heart of gender schemas, trace the effects of schemas on men's and women's professional lives, and suggest remedies for breaking through the glass ceiling.

The Origins and Effects of Gender Schemas

Childhood Learning

Where do ideas about sex differences come from? Expectations about gender differences, and plans to inculcate them, occur even before children are born. Here's a conversation between a man and a woman who are thinking of having a baby:

She: If we have a girl, I'll get her a truck.

He: Of course.

She: If we have a boy, I'll get him a doll.

He: Well, . . . if he asks for one.

Infancy and childhood are a critical period for the development of implicit hypotheses and expectations about the self and others. Small children observe unequal divisions of labor between men and women—both in the home and in the wider world—and notice that adults treat girls and boys differently. Like adults, children search for explanations of the differences they observe, aided by what they are implicitly—and sometimes explicitly—taught. As the conversation quoted above suggests, children are provided with data that require an explanation, such as paternal readiness to give a girl a truck and paternal reluctance to give a boy a doll. The explanation suggested to children, and the one they arrive at themselves, is that there is a causal link between their biology (about which they understand very little) and their talents, interests, preferences, attitudes, and behaviors. Children learn very early that they are not simply children, they are boys and girls. Chapters 2 and 3 focus on how adults treat children and what children learn.

Saying that children *learn* to be boys and girls does not deny the possibility that there are biologically based differences above and beyond reproductive capacity and the organs that mediate reproductive behavior. In some domains, such as rough-and-tumble play and skill at mentally rotating three-dimensional figures, there is good evidence that hormonal differences are important. But in every domain—including those with a clear hormonal influence—there is good evidence for social and cultural influences. Neither biology nor society act alone, nor could they. Chapters 4 and 5 summarize important findings on the role of hormones in behavior and cognition, and explain how to understand those findings.

Sex, Gender, and Schemas

The terms *male/female, man/woman*, and *boy/girl* distinguish people on the basis of their reproductive role, but do not imply that the characteristics of those groups are due to that role. If, for example, I refer to the superior spelling skills of females, I am not implying a link between the female reproductive role and spelling, though there may conceivably be one. Rather, I am saying that the people we single out on the basis of their having XX chromosomes are superior at spelling to those we single out on the basis of their having XY chromosomes. The difference in spelling skill may be partly influenced by chromosomal status, or it may be solely influenced by differences in how we treat people with XX status versus XY status; females may be especially good at spelling for reasons that have no direct link to their chromosomes. The term *sex difference*, then, refers to a difference between males and females, with no implication that the difference noted is directly linked to chromosomal or reproductive status.

When I speak of *gender*, on the other hand, I am highlighting our psychological and social conceptions of what it means to be a man or a woman. Thus, the term *gender schemas* refers to our intuitive hypotheses about the behaviors, traits, and preferences of men and women, boys and girls. Correspondingly, the term *gender roles* refers to our ideas about how men and women are expected to behave. In sum, *sex* is used to categorize people into two groups, and *gender* is used to describe our beliefs about sex-based categories.⁴

In discussing the contents of gender schemas I sometimes use the adjectives masculine and feminine. When I mention *masculine* characteristics, I refer to the characteristics we traditionally associate with men. I do not mean to suggest that only men have those characteristics. Similarly, if I talk about *feminine* toys, I am referring to toys seen as appropriate for girls to play with. I do not intend to suggest that there is anything inherently suitable for girls or unsuitable for boys about feminine toys. I am indicating only that those toys are seen as the "right" toys for girls. Although I am sometimes tempted to put quotation marks around the words feminine and masculine—to indicate that I do not believe such traits are inherently more natural for women or men—I do not do so. In my terminology, the words are part of gender schemas, part of our belief systems, not a description of the way things are.

Expressions in popular culture, such as "Real men don't eat quiche," are not intended as biological claims. Instead, they are comments about our notions of masculinity and femininity. The idea of a really good example of something—a "real" man or "real" woman—occurs with other concepts as well. For example, people judge the number 2 as a "better" even number than the number 736. At the same time, people agree that both numbers are even numbers and that it is ridiculous to talk of one even number being better than another (Armstrong, Gleitman, & Gleitman 1983). But 2 is psychologically a better example of evenness than

736 is; it is closer to our prototype of what even numbers are. Similarly, at least in North America, men who don't eat quiche are closer to our prototype of what men are than men who do.

The Cognition of Gender

Reproductive status is one way of distinguishing people. It is a distinction most cultures find psychologically compelling, and around which they form the implicit hypotheses I call gender schemas. As I mentioned earlier, all humans form implicit hypotheses to explain their social world.⁵ Whenever there is an observable difference between social groups, people develop hypotheses to explain the difference and look for data to support their hypotheses. Hypothesis-formation and hypothesis-testing are natural and valuable human activities. Human cognition seeks explanations of physical and social phenomena. Schemas and their impact on perception and evaluation are discussed in chapters 6 and 7.

The sexual division of labor is one example of a social phenomenon. One way to explain and justify it is to appeal to differences in men's and women's natures (Eagly 1987; Hoffman & Hurst 1990). To explain and justify the fact, for example, that almost all engineers are men and almost all homemakers are women, people may say that men have traits and abilities that fit them to be engineers and cause them to choose engineering over homemaking, and women have traits and abilities that fit them to be homemakers and cause them to choose homemaking over engineering.

Such an explanation is an implicit appeal to the deterministic power of built-in, essential differences. As I will show in the following chapters, there is no evidence in favor of such a picture and considerable evidence against it. There are built-in differences, but biology is not destiny. Biology is one factor in a multifactor equation. In considering the role of hormones in physical and cognitive differences between males and females in chapters 4 and 5, I try to avoid both extremes of an increasingly polarized discussion. Biology is not destiny, but neither is the social environment. Neither determines behavior; both influence it.

Our cognitions—how we interpret information, store it in memory, reason with it, draw inferences from it—are yet another important factor.

The role of cognition in our everyday understanding of sex differences has not, I think, been adequately examined. In this book I am proposing that cognitive processes are at the heart of our conception of sex differences and help to create and maintain the inequalities among us.

Expectations and Gender Traits

Having attributed different traits and behaviors to men and women to explain the sexual division of labor, people then treat men and women in accordance with their expectations about those characteristics, setting in motion a self-fulfilling prophecy (Merton 1948; Rosenthal & Jacobson 1968). All of us—boys and girls, men and women—become in part what others expect us to become, thereby confirming hypotheses about the different natures of males and females. While no one is infinitely malleable, no one is completely indifferent to others. One way we learn who we are is through others' responses to us. As men and women, we also develop expectations for our own behavior, based on characteristics we believe we possess. We then explain our successes and failures in terms of those abilities and traits. Chapters 8 and 9 review the findings on the impact of schemas on people's behavior.

In white, western, middle-class society, the gender schema for men includes being capable of independent, autonomous action (agentic, in short), assertive, instrumental, and task-oriented. Men act. The gender schema for women is different; it includes being nurturant, expressive, communal, and concerned about others (Bakan 1966; Spence & Helmreich, 1978; Spence & Sawin 1985). Women nurture others and express their feelings. Men who are nurturant and emotionally expressive are perceived as feminine; women who are agentic and assertive are seen as masculine. Schemas are not wholly inaccurate: on the whole, men have more masculine traits than feminine ones; women have more feminine traits than masculine ones.

But gender schemas oversimplify. Masculine and feminine traits are not opposites of each other; they are not contradictory. Everyone has both to some degree and expresses different traits in different situations. Differences exist, but the sexes are more alike than they are different. It is easy to lose sight of that reality, even though most differences between the sexes are small. In college I took a vocational-interests test in a psychology course. This test supposedly matched people's dominant interests and traits with different occupations. At the time, I was planning to become a clinical psychologist—not that I knew exactly what that meant—and I had a male friend, Richard, who wanted to be a psychoanalyst. I had learned that women tended to score higher on social and aesthetic traits and that men tended to score higher on, as I recall, scientific and analytic traits. Because the test items pitted the traits against each other, I had to express preferences I often didn't have. I found myself splitting the difference from answer to answer. Richard, half teasing and half taunting, said he could guess what my profile looked like. When I showed it to him, he pounced on how high my social traits were compared to his. "But look at my analytic traits," I insisted.

I now look at the test and my reactions rather differently. First, I should have said, "Richard, you're a jerk. You want to be a psychoanalyst and your social traits are low?" Second, I see that the test is based on misguided assumptions: it portrays occupations as unidimensional, and it forces people to be one thing *or* another. I now know that being a scientist is a social activity, as well as a solitary activity, as well as an analytic activity, as well as an aesthetic activity. Indeed, what I find wonderful about science is how many different parts of myself are satisfied in the doing of it. Third, I see that I accepted the assumptions of the test and felt correspondingly trapped by my feminine traits: I felt that if I acknowledged them, I would be condemned to a feminine future, always acting in the service of others, never acting for myself. I did not see a way to be nurturant *and* agentic. The either-or implication of gender schemas ruled out the self I wanted to be.

Schemas and Professional Evaluations

People and occupations are multidimensional, but our schemas simplify both. They portray the professions as suitable for men, and men as suitable for the professions. Without exception, every prestigious or highpaying profession in the United States is dominated by men, dominated numerically and in terms of who wields power (Gutek 1993).⁶ A man or woman who goes into law or business or academia is entering a field in which positions at the highest levels are disproportionately occupied by men and those at the lowest levels are disproportionately occupied by women. All prestigious professions are professions for men, not simply professions.

The immediate consequence for a woman entering a profession is that those around her, both men and other women, perceive her as at least slightly unsuited to that profession, because her gender doesn't fit in. The schema for women is incompatible with the schema for a successful professional, resulting in lower expectations of a woman's potential achievement. Those low expectations will, in turn, affect evaluations of her work. There is usually room for disagreement about the quality of someone's work. Observers of women will lean in a negative direction, in line with their low expectations. If she performs badly, that will confirm their expectations. If she performs well, she may still fail to receive her due, because her achievement runs counter to expectation. Or, she may be appropriately rewarded, but be seen as an exception to the general rule that women do not make good professionals.

There are a number of potential pitfalls for women professionals that originate in the perceived discordance between the two schemas. Women must appear neither too feminine nor too masculine (see chapter 7). At either extreme they make others uncomfortable. A woman who is very feminine runs the risk of seeming less competent; the more she typifies the schema for a woman, the less she matches the schema for the successful professional. On the other hand, a woman with masculine traits runs the risk of appearing unnatural and deviant. The more she typifies the schema for the successful professional, the less she matches the schema for a woman.

Some women—such as the subject of the following admiring description—manage to appear both competent and feminine: "She is a tough, tough lady. She has a soft, genteel way about her, but she is an adversary of steel." That characterization of Janet Reno was offered shortly after her 1993 nomination for U.S. Attorney General (Rohter 1993, quoting a former judge and prosecutor who had hired Reno as state attorney in Florida). Former British Prime Minister Margaret Thatcher, with her sobriquet "The Iron Lady," has been described in similar terms. It is possible, then, to be perceived simultaneously as "tough" (masculine) and a "lady" (feminine), as having a "soft" and "genteel" manner while being "an adversary of steel." Although such a blending of opposites may appear almost impossible, observation suggests that it is reasonably common among successful women.

Less common is the woman who concentrates on competence and ignores femininity. It is the rare woman who is completely unconcerned about whether she is perceived as feminine, and the rare environment that is similarly unconcerned. Women who do not have a "soft, genteel way" about them may be told—despite their manifest competence—that they should wear more make-up and go to charm school. That was what Ann Hopkins's evaluators wrote about her when, despite her outstanding record, they rejected her bid for a partnership at Price Waterhouse, an accounting firm (see chapter 13; Fiske, Bersoff, Borgida, Deaux & Heilman 1991).

The partners were openly critical of a woman who didn't act like a prototypical woman. Other people's overt beliefs in equality may cause them to avoid making such stereotypic statements, but their nonconscious schemas may not prevent them from making stereotypic judgments. People who eschew statements such as, "Women do not command respect from their subordinates," may nevertheless feel comfortable saying, "Lee does not command respect from her subordinates." The latter comment is just a "fact" about Lee, arrived at through impartial and fair observation. In their laudable resolutions to judge fairly, people may be unaware that their perceptions are guided not only by someone's objective performance, but in addition by their nonconscious expectations of the person's performance.

Lee, then, may be misperceived due to the influence of gender schemas. She might genuinely have her subordinates' respect but be perceived otherwise because of a gender schema that says women do not command respect. Or, her subordinates might express their respect for her somewhat differently than they would for a man. Onlookers, failing to see traditional marks of deference and tacitly believing that women are poor authority figures, might conclude that respect is absent. Finally, Lee might lack her subordinates' respect, not because of her behavior but because her subordinates resent having a woman superior and therefore refuse to grant her the respect they would give a man exhibiting the same behavior. Observers, because of their expectations about women, could mistakenly locate the problem in Lee's performance, rather than in her subordinates' schemas.

A story about a science department at a prestigious university, circa 1990, illustrates how expectations stemming from gender schemas can affect a woman's career. A young Ph.D. who has just been hired has a conference with her department chair about what courses she will teach. She is eager to teach a large introductory lecture course. The chair refuses, saying that students won't accept a woman instructor in that format. The woman presses a bit, saying she thinks she can do it and would like to try. The chair doesn't want to take a chance and instead assigns her to a laboratory course. The woman is not happy with the substitution, because laboratory courses are extremely time-consuming. As a young faculty member, she needs to spend as much time as she can developing her research and getting it published, in order to earn promotion and tenure. She will now have less time for research than will her male peer who is assigned to the lecture course.

The example nicely captures the many different factors—especially gender expectations—that intersect to place a woman in a poor position. The chair believes he is being objective about the students' preferences and is minimizing any risk to an important course. Nothing about the conference causes him to consider the possibility that his decision is guided by gender schemas or might be unfair. The conference has also set a bad precedent. In the conference, the chair activated his nonconscious views of women and attached them to the new faculty member. He explicitly articulated the view that, as a woman, she would not do a good job as a lecturer. In the future, he is likely to reactivate his views about women when he is evaluating her. In a way, she has already failed, because he has already labeled her to himself as an unacceptable lecturer.

What might the chair have done if he had been aware of gender schemas and committed to gender equality? He would still have been concerned about the students' reception of a woman lecturer, but he could have tried to work out with her some techniques to ease her acceptance. He could have recommended that the woman speak to experienced colleagues to learn what has worked well in the past and to plan her response to the authority-challenging events that large lecture classes are prone to no matter who is teaching—newspaper reading, whispered conversations, snoring, and so on. He could have suggested that, to solidify her authority, she schedule several moderately rigorous quizzes early in the semester. Finally, he could have been prepared with statements of full support for her, were students to bring complaints to him. As things stand, however, the chair has put the woman at an objective disadvantage: he has taken time away from her on the basis of her gender.

Statistics on women's progress in the professions (reviewed in chapters 10 through 12) back up the idea that a succession of small events, such as not getting a good assignment, results in large discrepancies in advancement and achievement. They also suggest that gender schemas work to women's disadvantage in other ways. Women generally benefit less from their positive achievements than men do. In their first academic appointment, for example, men benefit more than women do from the prestige of the institution where they received their training. Men get better jobs. Men are promoted more quickly. Men are tenured more quickly. Men make more money. Men are overrepresented at senior levels. As the discussions in chapters 11 and 12 make clear, the differences hold even when men and women are equated on performance (to the extent that they can be).

What is true for academia holds even more strongly in the corporate world. A 1990 *Fortune* magazine survey of 799 of the largest U.S. industrial and service companies found that only nineteen women—less than one-half of 1 percent—were listed among the more than four thousand highest-paid officers and directors (Fierman 1990). In business, as in academia, women earn less than men (two of those nineteen women had cash compensation under \$85,000 per year), are promoted more slowly, and work in less prestigious firms. Women's salaries have improved. In a 1996 survey of the twenty most highly paid women, the lowest salary was \$152,977 (Greene & Greene 1996). But 615 men earned more than the twentieth woman on the list. Again, as in academia, to the extent that performance can be accurately measured, men and women appear to perform equally well.

Independent of all other factors, gender appears to play a major role in people's ability to get ahead. Gender schemas are objectively costly for women. Relative to women, men have a leg up. Men look right for the job.

Qualifications and Responsibilities

In the same way that some theorists have suggested a deterministic role for biology, others have suggested a deterministic role for educational and professional qualifications. In both cases, women's lower professional status is attributed to something they lack. There often are sex differences in qualifications (as chapters 10 to 12 review). But, like biology, qualifications are not destiny. They too are but one factor in a multifactor equation, as is evident from the fact that men and women with equal qualifications do not advance at the same rate. In evaluating the role of qualifications in chapters 10 through 12, I have tried to avoid both extremes of a polarized discussion. I conclude that qualifications influence people's ability to advance but do not fully determine advancement. Gender schemas play an important role in disadvantaging women.

Men's lack of responsibilities outside of work may also contribute to their faster professional advancement. Men accept less responsibility than women do for the day-to-day operation of their households, as documented in chapter 2. Men are less likely than women to work part-time in order to raise their children. Inequities at home reverberate in the work place. But men's advantages and women's disadvantages on the job are not solely a function of their differing participation in family life. Men receive a greater reward for their performance than do women, independent of all other factors.

Self-Perception

Subjective costs add to the objective costs of gender schemas. Consider again the young professor who has not been permitted to teach a large lecture course. If she is rational, she must now wonder what other jobs she will be perceived as unable to fill. She may reaffirm to herself that she is competent and willing to work hard. Or she may begin to question her competence and motivation. Either way, she has borne and continues to bear an emotional cost that a comparable man will not have had.

Everyone experiences successes and failures and must then explain to themselves just why they succeeded or failed (as discussed in chapter 9). A somewhat oversimplified description of men's reactions to success and failure is that they take the credit for their successes but do not accept the blame for their failures. A similarly oversimplified description of women's reactions is that women take the blame for their failures but do not take the credit for their successes.

Because the professions are perceived as requiring masculine abilities and traits, a successful man can reasonably credit himself with the abilities and traits that are necessary for success—and feel masculine into the bargain. A man's success and his masculinity reinforce each other. A man's failure is incompatible with his masculinity. Since people want to feel compatible with their gender—and to perceive others the same way—a man will attempt to interpret his failures in terms that leave his masculinity intact (and others will attempt to do the same for him). One response is to try to escape the blame. Paradoxically, another response is "thebuck-stops-here": the man shoulders the responsibility. Tone seems to be everything here. By taking responsibility in the right way, a man can actually seem more masculine and more in control. Although he acknowledges his failure, he also manages to reduce its overall importance.

For a woman, success and failure work differently. If a woman is professionally successful, she must either see herself as having masculine traits—and thereby run the risk of seeming unfeminine to herself and others—or as having compensated in some way—through luck or extraordinary effort—for a lack of masculine characteristics. Unlike a successful man, a woman has something to lose from success: her gender identity or belief in her ability. Conversely, failure and femininity reinforce each other. Women are expected to fail and potentially have something to salvage from failure, namely, reinforcement of their femininity. A woman who fails is more of a woman than one who succeeds.

For men, then, there is complete congruence between professional goals and the need to feel like a good example of their gender. For women there is a potential conflict. Naturally, not every woman, on every occasion, will perceive herself or be perceived in terms of a conflict between competence and femininity. But even a small dilemma of that sort, occasionally experienced, will accrue disadvantage for a woman relative to a man, who never has to choose between competence and masculinity.

In experimental investigations, people are asked to apportion the reasons for their success or failure at a task among four different factors: ability, effort, luck, and easiness or difficulty of the task. The results are reviewed in chapter 9. Women and men contrast most in how they view the role of luck. Women see luck as more important for both their successes and their failures than men do.

"Luck" may be a grab-bag category in such experiments—a reason people use when they don't know exactly why something happened, when they cannot establish a clear cause-and-effect relation. Because luck is by its nature unstable and uncontrollable, attributing outcomes to it is deleterious. If you see a success or failure as due to luck, you cannot learn anything from it. There is no point in trying to figure out what went wrong or right, no point in developing a plan for the future based on the past, no point in putting forth a lot of effort the next time. Chance undoubtedly enters into every result, but consistent success demands competence, strategic analysis, and effort.

Although an emphasis on luck is detrimental to achievement, it is also a rational response for women. Luck, in the guise of an unstable and uncontrollable set of external circumstances, plays an unwarranted role in women's professional lives. Women do not reliably profit from their competence, strategic analysis, and effort to the same extent men do, as the research reviewed in chapters 10 through 12 demonstrates. Yet no professional woman can succeed without those qualities. One might even argue that they are more important for women than for men, because women's objective circumstances are more difficult than men's. But individual effort is insufficient. Trailing behind every successful woman are the unsuccessful women—who knows how many?—who were equally competent, strategic, and hardworking, but not lucky.

Women would have to close their eyes to the facts to deny the role of factors outside their control and to insist on the potential efficacy of their own actions. Yet how effective can women be unless they act as if luck were irrelevant? Here is another small dilemma women face that men do not—one that, over time, takes its toll.

I remember a heated discussion with my mother when I was a young teenager. I showed her a poem I had read about being the captain of one's ship. To me the poem was a validation of what I most deeply believed: that my longing and determination to achieve something significant would make reality conform to my will. Here was a poem—a voice from the outside world I planned to succeed in—to lend authority to my certainty that I could control my future. I wanted my mother to have the same opinion, not just about me, but about herself. I wanted her to have high aspirations as well.

But she argued with me. "No," she said, "it isn't so." One wasn't the captain of one's ship, one couldn't do exactly what one wanted.

I was upset and angry. Of course you couldn't be the captain of your ship if you didn't *believe* you could be, if you didn't *try* to be. I rejected my mother's defeatism and took comfort from the poem.

It is of course true that the race is not always to the swift. But women, as a group, do not experience as tight a fit between cause and effect as men do. Women enjoy fewer successes and suffer more failures than comparable men. Men and women live in different environments, environments that are the same only on the surface. Women have puzzles to solve that men do not. Some women decide that they are exceptional and will succeed where others have failed. Others ignore the unstable relationship between cause and effect, action and result. Still others forgo professional ambition, perhaps without realizing why.

Remedies

What can we do to foster equality? In chapters 13 and 14, I propose remedies. Affirmative action policies, legislation, and recourse to the courts remain important avenues to change in the workplace. The courts make it harder for employers to use gender schemas to justify denying women advancement in the form of salary, promotion, partnership, and tenure.

But the unexpressed and nonconscious nature of gender schemas and their subterranean mode of action require more subtle remedies as well. The first, and most important, remedy is learning about gender schemas: how they develop, how they work, how they are maintained, and how they influence aspirations and expectations. Using this knowledge, organizations and individuals can devise procedures and programs to neutralize gender schemas, as I recommend in chapter 14.

I hope that this book will itself serve as a remedy. Fairness is the leitmotif of this chapter and this book. I trust that understanding what is required for fairness will help to bring it about.