



NSF-ADVANCE AWARD INSTITUTIONAL TRANSFORMATION AT CASE WESTERN RESERVE UNIVERSITY



Edward M.
Hundert, M.D.
President,
Case Western
Reserve
University



John L.
Anderson
Provost and
University Vice
President
Professor,
Chemical
Engineering

Academic Careers in Engineering and Science (ACES)

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Program Officer: Alice Hogan (ahogan@nsf.gov)
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Principle Investigator:
Lynn Singer, Deputy Provost and Vice President for Academic Affairs

The goal of the ACES project is to contribute to the development of a national science and engineering academic workforce that includes the full participation of women at all levels of faculty and academic leadership, particularly at the senior academic ranks, through the transformation of institutional practices, policies, climate, and culture.

ACES encompasses all departments in fields of research supported by NSF. There are 31 participating departments in four schools: Case School of Engineering, College of Arts & Sciences, School of Medicine, and Weatherhead School of Management.

Initiatives

- Executive coaching for deans of schools/college and department chairs
- Coaching, mentoring, and networking for women faculty
- Faculty development and education
- Faculty search committee supports
- Opportunity grants for women faculty
- ADVANCE distinguished lectureships for women in S&E
- Student awareness training
- Minority pipeline initiatives
- Resource Equity Committee
- Annual evaluation of deans' progress toward transformational change.

Results and Activities for Years 1 and 2

- Distinguished Lectureships: 14 senior women scientists presented
- Executive Coaching of 42 women faculty, 13 chairs, and 1 dean, 2 associate deans, 1 deputy provost, 1 vice provost, and 1 minority male faculty
- Opportunity Grants: \$182,708 awarded to 16 women faculty
- Support for faculty search committees provided to 10 departments
- Summer Undergraduate Research Program: 15 minority women students conducted research for 10 weeks in the lab of a faculty mentor
- Provost's Annual Leadership Retreat for all S&E deans and chairs with a focus on the recruitment, advancement, and retention of women faculty, October 26, 2004. November 18, 2005 Theme: Things that Work
- 2 Faculty Development Workshops with the Flora Stone Mather Center for Women. - November 11, 2005 [Negotiation] & [February 17, 2006, \[Communication\], 12:30 – 1:30 pm.](#)
- 4 Networking Events for women faculty with the Flora Stone Mather Center for Women. See ACES calendar for 2005/2006 events or email NSF-ACES@case.edu
- Training workshops for S&E undergraduate and graduate students on gender schemas.
- Faculty exit online survey instituted
- Online Affirmative Action form instituted for faculty candidates

Academic Careers in Engineering and Science (ACES) NSF-ADVANCE at Case Women Faculty Information



Lynn Singer,
ACES Principal
Investigator
Deputy Provost and
Vice President for
Academic Affairs
Professor,
Department of
Pediatrics
lynn.singer@case.edu

Co-Investigators

Mary Barkley
Diana Bilimoria
Donald Feke
P. Hunter Peckham

Phone: (216) 368-8860
Contact: Shelley White,
Project Coordinator
Email:
NSF-ACES@case.edu

Visitors & Deliveries:
11427 Bellflower Hall,
Room 101
LOC: 7171

Why Do We Need ACES?

- Low % of women faculty in Science and & Engineering (S&E) fields, nationally and at Case.
- Problems in advancement and retention of women and minority faculty in S&E fields.
- Absence of women faculty in academic leadership positions in S&E fields.
- Women faculty across Case report lower satisfaction with the academic climate.

ACES Mission

To promote a campus-wide culture characterized by equality, participation, openness, and accountability.

ACES Goals

- Increase number of women at all academic levels in Science & Engineering
- Stimulate department change
- Transform campus-wide culture
- Institutionalize transformation

Your Role

- Participate in a number of opportunities and avail of a variety of inputs to enhance your scholarship, academic performance, career development, and scholarly visibility.
- Increase your leadership within your department, school/college, and discipline.
- Support the development of faculty colleagues, especially junior faculty.

What You Can Expect from ACES

- **Support** from ACES for:
 - Executive Coaching for one year
 - Mentoring or Development Committee for two years
 - Student Awareness Training
- **Networking and Faculty Development Opportunities:**
 - Workshops for women faculty only
 - Workshops for departments, including ACES Introductory Presentation
 - Bi-monthly ACES networking luncheons for women faculty
 - Faculty Development events cosponsored by ACES and the Flora Stone Mather Center for Women
- **Funding Opportunities:**
 - Opportunity Grants: www.case.edu/admin/aces/opportunity.htm
 - Distinguished Lectureships: www.case.edu/admin/aces/lectureship.htm
 - Departmental Initiative Grants: www.case.edu/admin/aces/dig.html

www.cwru.edu/admin/aces/index.htm

Faculty Grants



Contact Persons

Mary Barkley
ACES co-PI
M. Roger Clapp
University Professor
of Arts & Sciences
Professor,
Department of
Chemistry
mary.barkley@case.edu

and

Shelley White
ACES Coordinator
shelley.white@case.edu



Opportunity Grants

Opportunity grants maximize the chance of success for women faculty at Case by providing support for projects and activities that are difficult to fund through other sources. All women faculty in the 31 NSF-fundable departments, including instructors and research faculty, are eligible to apply. Examples include:

- Seed funding for unusual research opportunities
- Bridge funding when ongoing research funding has been suspended
- Grants to support writing of books
- Travel grants to explore new techniques or attend advanced training courses
- Child care to attend a professional meeting or conduct research at another institution

The deadline for proposals is October 15 and May 15. Exceptions to the deadlines will be made to take advantage of unusual opportunities. Applications should include a statement of objectives, brief description of project or activity (2 page maximum), budget justification, and current CV (2–4 page NSF/NIH biographical sketch). Proposals should be written for a general scientific audience. Grants will be awarded on a competitive basis. Mentoring may be offered in addition to funding in some cases. Applications should be submitted to NSF-ACES@case.edu

To view some frequently asked questions about the ACES Opportunity Grant, visit www.case.edu/admin/aces/guidelines.htm

Distinguished Lectureships

The ADVANCE Distinguished Lectureships support campus visits by 10 senior women scientists or engineers per year for a minimum stay of 2 days and 2 full nights and a maximum stay of 2 weeks. Distinguished Lectureships are awarded to the 31 NSF-fundable departments on a competitive basis.

A Distinguished Lecturer will have mutual research interests with faculty in the host and other departments. She will give 3–6 lectures, including specialized seminars or course lectures and a public lecture followed by a reception. The presence of the ADVANCE Lecturers on campus will raise the visibility of S&E women faculty for both men and women of all academic levels.

Each Lectureship carries a \$2,000 honorarium and funds for travel, lodging, meals, and reception expenses. The deadline for proposals is October 15 and May 15. Exceptions to the deadline will be made for special cases. Applications should include a current CV, list of proposed lectures, and brief description of interaction with Case faculty. Applications should be submitted to NSF-ACES@case.edu

www.case.edu/admin/aces/opportunity.htm
www.case.edu/admin/aces/lectureship.htm

Departmental Initiative Grants

ACES Departmental Initiative Grants support department-wide activities in the 31 NSF-fundable S&E departments to advance ACES mission and goals. Initiatives to improve departmental climate, enhance collegiality, stimulate greater inclusion of women and minority faculty, promote positive department change, and institutionalize transformation are encouraged. Examples of fundable initiatives are:

Strengthening the department's internal academic networks

- A monthly Junior Faculty Forum to hear presentations on selected topics from senior faculty or administrators
- An integrative research seminar for doctoral students and faculty
- A department-wide strategic planning initiative or retreat

Strengthening the department's external visibility

- Support for junior faculty members and women doctoral students to attend international conferences
- Increasing the web presence of the department or faculty members
- Doctoral student or faculty exchange to promote scholarly collaboration
- Visits by leading journal editorial teams or professional association leadership
- Plan for enhancing departmental marketing/publicity

Faculty Development

Sponsoring faculty to attend a leadership workshop, program, conference, training, etc. Activities will receive priority consideration that focus on identifying and developing skills needed for leadership success.

- Professional (time or project management, effective communication; problem solving, relationship building)
- Academic (budget management, team building, institutional values and integrity, mentoring, fostering innovation and change)
- Scientific (building a scientific research center)
- Many professional development workshops are conducted by Weatherhead. See <http://weatherhead.case.edu/seminars/>

Strengthening the department's social infrastructure

- Creating a departmental area for regular social interaction
- Instituting a weekly faculty community hour

Recruitment Activities

- Search activities to diversify the candidate pool. Suggestions can be obtained by contacting Amanda Shaffer, ACES Diversity Specialist, (216) 368-8874 or amanda.shaffer@case.edu

Awards up to about \$10,000 will be spent by the department during the year of the award. The deadline for proposals is October 15 and May 15. The application should include a statement of the overall initiative and how it will advance ACES goals, description of the process undertaken to include faculty inputs in the development of the plan, and brief descriptions of proposed activities and evaluation of the initiative. Applications should be submitted to NSF-ACES@case.edu

www.case.edu/admin/aces/diq.htm



Contact Person

Mary Barkley,
ACES co-PI
M. Roger Clapp
University Professor
of Arts & Sciences
Professor,
Department of
Chemistry

mary.barkley@case.edu



The ACES office is
located in Bellflower
Hall, Room 101
LOC: 7171

Executive Coaching



Contact Person

Diana Bilimoria,
ACES co-PI,
Associate
Professor,
Department of
Organizational
Behavior

diana.bilimoria@case.edu



Executive Coaches: (L to R)

Diana Bilimoria,
Doug Moore,
Meg Seelbach,
Susan Freimark,
Kathleen FitzSimons

The ACES coaching initiative provides coaching to women faculty of the 31 NSF-fundable S&E departments at Case. Executive coaching is used extensively in business and industry to enhance individual performance, facilitate leadership development, and catalyze organizational change. We have adapted this approach for use in the university setting. An executive coach is someone who has general academic/organizational experience. All our coaches are certified through the Hay Group's coaching certification program. They specialize in providing performance- and career-related advice. They will tend to focus on academic, performance, and leadership aspects of your career, and provide new ways of looking at issues, general ideas for solutions, and feedback for you to apply to your particular situation. The coach will help you to determine career and leadership vision, goals, plans, and actions. For general information on executive coaching:

www.coach-federation.org/aboutcoaching/about.asp

Objectives

1. To facilitate your academic and professional career growth.
2. To enhance your disciplinary scholarship, academic performance, and scholarly visibility.
3. To enhance your leadership development in your department, school/college, and discipline.

Executive Coach

You will be assigned an executive coach for the period of one year. The coach will contact you by email or phone call to set up your first coaching session. You will be provided with your coach's resume.

Program Structure

- You will receive six 90-minute meetings, face-to-face or by phone with your coach.
- The first few sessions of the coaching program will pertain to academic performance and goal-setting. Subsequent sessions with the coach may focus on career planning, leadership and professional development, academic performance issues, issues of work-life integration, professional relationship building, and department/school/college development.
- As appropriate, your coach may encourage you to complete relevant self-assessment instruments, as well as a 360-degree assessment of your competencies.
- Please note that all interactions with and feedback you receive from your executive coach will be confidential. The coach will not report the specific content of your discussions with anyone evaluating your performance.

Evaluation

- Regular meetings between the coaches and the ACES co-PIs to evaluate and appropriately adjust the program's general efficacy. Individual participants' names or identities are not revealed at these meetings.
- Quantitative and qualitative evaluations by program participants of the effectiveness of the coaching program at the middle and end of the coaching period.

<http://www.case.edu/admin/aces/coaching.htm>

Mentoring

The ACES mentoring initiative creates Career Advisory Committees for all women faculty of the 31 NSF-fundable S&E departments at Case. Mentoring Committees are set up for women faculty who are Instructors and Assistant and Associate Professors. Development Committees are created for the specific needs of women faculty who are Professors.

Objectives

1. To foster your academic and professional success at all levels in the academic hierarchy through the provision of opportunities, access to critical information and resources, and inclusion in key networks.
2. To convey knowledge about department- and institution-specific standards and practices, as well as discipline-specific academic and career guidance, especially during times of transition.
3. To provide you with feedback on and ideas to enhance your disciplinary leadership, academic performance, and career development.

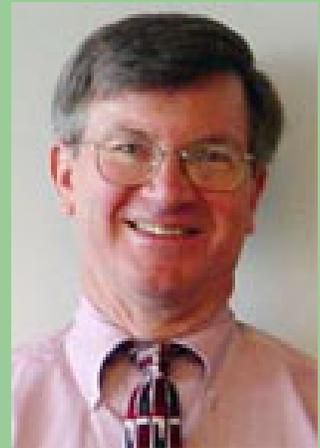
Program Structure

- Participants and their mentors attend an educational workshop: *Cultivating a Successful Mentoring Relationship*.
- In consultation with an ACES Co-PI and the Mentoring Coordinator, each woman faculty member sets up a Mentoring or Development Committee generally consisting of the following members: one senior faculty member in her department, one senior faculty member within the university but outside her department, one person from within her academic discipline but outside the university (out-of-town and/or non-faculty member).
- The woman faculty member enters contact information for her committee into the mentoring database at www.acesproject.com/ [Your login is your case ID, please contact Shelley White for your password.]
- The department chair invites the mentors to serve on this committee, and to attend the workshop. ACES provides the department chairs with sample wording for the letter of invitation.
- ACES recommends that the mentoring committee meet once or twice a semester (every 2-3 months) in a face-to-face setting (with the outside member joining by teleconference) for a period of two years. If this is not possible, then meetings with subsets of the committee can be held as convenient. The mentee takes responsibility for the agendas and arrangements of these meetings.
- Suggested content for discussion at mentoring committee meetings: (a) Overall career vision, plans, goals, and progress; (b) ongoing research; (c) new research; (d) teaching and service work; and (e) promotion and tenure; (f) external visibility; (g) priority setting and work-life integration.

Evaluation

- Regular lunch meetings of women faculty to share experiences, successes, and challenges of the mentoring experience.
- Annual evaluation of the success of this program from all mentees and mentors.

<http://www.case.edu/admin/aces/mentoring.htm>



Contact Persons

P. Hunter Peckham
ACES co-PI
Donnell Institute
Professor of
Biomedical
Engineering
Professor, Department
of Biomedical
Engineering
hunter.peckham@case.edu

and

Verena Murphy,
Mentoring
Coordinator,
Department of
Organizational
Behavior

verena.murphy@case.edu



Networking Events



Contact Persons

Dorothy Miller,
Director, Flora
Stone Mather
Center for Women
Clinical Associate
Professor,
Mandel School of
Applied Social
Sciences

dorothy.miller@case.edu

and

Shelley White
Project Coordinator
shelley.white@case.edu



ACES offers a series of formal and informal networking and faculty development opportunities for all women faculty of the 31 NSF-fundable S&E departments at Case, including.

Women Faculty Networking lunches

Women faculty in the ACES departments are invited to attend networking lunches. These lunches, attended by several of the ACES Co-PI's, focus on various topics, such as mentoring, negotiation, increasing your visibility, etc. RSVP to Shelley at 368-8860 for the lunch on mentoring on [Monday, February 6, 2006](#) at the Case Club from 12 - 1 pm and an ACES Self-study Roundtable on [Friday, April 21, 2006](#) in Nord Hall 310 A & B, 12 - 2 pm.

Faculty Development Workshops

One faculty development workshop is held each semester, open campus-wide to women and men faculty, post-docs, and graduate students. These luncheon workshops are sponsored by ACES and the Flora Stone Mather Center for Women. The next workshop will be [Communication in the Workplace: Closing the Gender Gap, February 17, 2006, 12:30 - 1:30 pm, Thwing 1914](#) Previous sessions include: *Negotiation at the Academy: A Workshop for Women Faculty*; *Success Strategies for Women in Academic Careers*; and *Successful Mentoring*. Handouts, PowerPoints and photos from each workshop are posted at www.case.edu/admin/aces/networkingevents.htm

Women of Achievement Luncheon

An annual recognition luncheon is cosponsored by ACES and the Flora Stone Mather Center for Women in honor of women faculty at Case who were promoted, tenured, or received awards in the current year. March 3, 2006 12:30 - 2 pm Thwing Ballroom

Celebrating Women's Research and Scholarship

In conjunction with the annual Research ShowCASE, ACES and the Flora Stone Mather Center for Women co-sponsor a networking lunch to encourage greater participation from women faculty, and to promote Tech Transfer for women researchers. [April 5, 2006 11:00 - 1:00 pm, Veale Convocation Center](#)

ADVANCE Distinguished Lectures

Several public lectures are presented by ADVANCE Distinguished Lecturers over the course of the year. For more information see www.case.edu/admin/aces/lectureship.htm

<http://www.case.edu/provost/centerforwomen/>

<http://www.case.edu/admin/aces/networkingevents.htm>

Education & Development

ACES offers a variety of educational workshops and faculty development opportunities to entire departments and to women faculty across the 31 NSF-fundable S&E departments.

Workshops For Entire Departments

Generally 1.5 hours

- Presenting Your Self Effectively
- Communication Between Men and Women
- Improving the Chilly Climate for Women Scientists
- Using Emotional Intelligence
- Leadership Development
- Negotiating
- Successful Mentoring
- Communication Skills

Workshops For Women Faculty across Departments

Generally 1-2 hours

- Supervising your Lab and Graduate Students
- Time and Project Management
- Balancing a Research Career and your Personal Life
- Effective Teaching Strategies
- Voice Training
- Transitions through the Academic Career: the Tenure and Promotion Process
- Success Strategies of Senior S&E Women Faculty
- Website Development

Departmental Facilitation

ACES provides support to departments undertaking longer development activities, such as:

- Facilitation of annual and semi-annual retreats
- Facilitation of strategic planning initiatives

<http://www.case.edu/admin/aces/about.htm>



Contact Persons

Donald Feke,
ACES co-PI,
Vice Provost for
Undergraduate
Education
Professor,
Department of
Chemical
Engineering
donald.feke@case.edu

and

Mary Barkley,
ACES Co-PI.
M. Roger Clapp
University Professor
of Arts & Sciences,
Professor,
Department of
Chemistry
mary.barkley@case.edu

Student Awareness Training



Contact Persons

Dorothy Miller,
Director, Flora Stone
Mather Center for
Women Clinical
Associate Professor,
Mandel School of
Applied Social
Sciences

dorothy.miller@case.edu

and

Kleio Akrivou,
Doctoral Candidate,
Department of
Organizational
Behavior

[klio.akrivou-
napiersky@case.edu](mailto:klio.akrivou-napiersky@case.edu)



Becoming a Powerful Learner: How to Use Diversity to Maximize One's Learning

These brief awareness sessions focus on gender-based stereotyping in classrooms and labs, and differential expectations toward male and female faculty members. The sessions are conducted by Dr. Dorothy Miller, Director of the Center for Women and Klio Akrivou, a Ph.D. student from the department of Organizational Behavior.

The goals of these sessions are to:

- create awareness of gender role assumptions and expectations
- increase understanding of how social structure is a factor in the development of gender roles
- introduce to students how they can be involved with equitable solutions to the problems that gender stereotyping causes

Presentation of research-based factual information is combined with discussions of personal experience in sessions for both graduate and undergraduate students. Quotations such as the following from Case's Resource Equity Study, are discussed:

"...they [students] expect this nurturance. I have a lot of students come to my office and argue with me about grades in a sort of threatening manner."

Case female faculty member

"I have students come into my office thinking I must be the department assistant and ask me where the Professor is. I am the Professor!"

Case female faculty member

"Unlike the other students, I find that there is a problem with gender inequality here in XX... I didn't speak up because I didn't want my fellow students looking down on me... I appreciate what your program is trying to do...tell the class next time about what I wrote in this email, so that they know that someone sitting in that very room has experienced gender inequalities. But please, do not tell them who I am."

Female student, after a session

Please contact Dr. Miller to schedule sessions at (216) 368-0985 or dorothy.miller@case.edu.

www.case.edu/admin/aces/studentawareness.htm

Search Committee Resources

When it comes to recruiting diverse faculty members, many search committees report that they cannot find qualified women or people of color to apply for their open positions. Research has shown that committees succeed in hiring women and people of color when they transform the search process, are committed to diversity, and are proactive about building a diverse candidate pool.

ACES has created faculty search committee supports to help you transform your process, including a three-part Toolkit of workshops and online tools.

The objective is the consistent application of high standards, fairly applied to:

- [use best practices to avoid bias to the degree possible in one's own decisions and contributions to committee deliberation](#)
- [help committees diversify their candidate pools.](#)

The following three topics can be presented as a single 1.5 hour session, or as individual sessions at the appropriate time during the search.

1. [Guidelines & Recruitment](#)
 - a. Legalities, Forms, and Procedures
 - b. Tips and Techniques for Recruitment
 - c. Resources for Diversifying the Candidate Pool
2. [Evaluating the Candidate](#)
 - a. Creating a Structure and Eliminating Bias
 - b. Readings and Resources
 - c. Screening Tools
3. [Interviewing & The Campus Visit - Best Practices](#)
 - a. Resources for Relocation
 - b. Partner Hiring Policy and Network
 - c. Tips and Techniques for Retention

The Toolkit briefings are a review of new protocols and guidelines, best practices for recruiting, and additional search strategies that may help you to reach your recruitment goal. The Diversity Specialist can recommend possible changes to enhance your search, and help you tailor the Toolkit to your search or candidates.

www.cwru.edu/president/aaction/aeeo.html



Contact Persons

Beth McGee,
Faculty Diversity
Officer
Associate Professor,
Department of
Theatre and Dance

beth.mcgee@case.edu

and

Amanda Shaffer
Diversity Specialist,
ACES and Office of
Equal Opportunity
and Diversity
amanda.shaffer@case.edu



Research and Evaluation

The Resource Equity Committee (REC), was created by the President in 2000 in response to the MIT Report (1999). The REC was charged to conduct a self-study of resource allocation among Case faculty and the impact of gender on Case faculty careers. During the NSF ADVANCE award, the REC is continuing its work as the ACES Research and Evaluation team. Their reports, papers, posters, and presentations, and more resources, are available at www.case.edu/admin/aces/resources.htm.

Reports

- "A Good Place To Do Science: A Case Study of An Academic Science Department"
- 2004 Community and Climate Survey Report
- Provost's Leadership Retreat 2004 Report
- Faculty Affirmative Action Report 2002–2003
- NSF ADVANCE ACES Annual Report Years 1 and 2
- Resource Equity Committee (REC) Report
- NSF-ADVANCE Proposal (PDF, 345K)

Presentations and Posters

- "The Role of Research in Institutional Change", Bilimoria, Liang, Perry
- "Transforming the Faculty Mindset", Bilimoria, Perry
- "The Academic Glass Ceiling: Women Faculty in STEM Fields", Bilimoria
- "An Integrated Coaching and Mentoring Program for University Transformation", Bilimoria, Hopkins, O'Neil
- "How Do Female and Male Faculty Members Construct Job Satisfaction?", Bilimoria, Perry, Liang, Higgins, Robson, Stoller, Taylor
- "Graduate Student-Faculty Relations: Exploring Gender and Nationality", Perry, Joy, Liang, Bilimoria, Gordon, Higgins, Stoller, Taylor
- "The Case Situation", Singer

Papers

- "How Do Female and Male Faculty Members Construct Job Satisfaction? The Roles of Perceived Institutional Leadership and Mentoring and their Mediating Processes", Bilimoria, Perry, Liang, Higgins, Stoller, Taylor
- "Drawing on Supply-side and Demand-side Discourses: A Case Study of Faculty Perceptions of Gender and Academic Careers", Higgins, Stoller, Taylor, Robson, Bilimoria, Perry
- "Transforming the University through Coaching and Mentoring", Bilimoria, Hopkins, O'Neil
- "Predicting Academic Career Success from Academic Process and Individual, Relational, and Organizational Perspectives: How Does Gender Matter?", Bilimoria, Liang, Perry,
- "Women and Careers: A Critical Perspective on the Theory and Practice of Women in Organizations", O'Neil, Bilimoria
- "Factors Affecting Early Career Women's Choices: Implications for Organizations", O'Neil, Bilimoria

Work In Progress

- Faculty survival analysis. A rank, promotion, and retention study using survival analysis methods over a 15-year period
- Faculty salary study. Analysis of faculty salaries over time using the Paychecks

Resource Equity Committee and Staff

Diana Bilimoria,
Associate Professor,
Organizational
Behavior

Nahida Gordon,
Professor, Bioethics

Patricia Higgins,
Assistant Professor,
Nursing

Eleanor Stoller,
Professor, Sociology

Cyrus Taylor,
Professor, Physics

Susan Perry,
Senior Research
Associate,
Organizational
Behavior

Xiangfen Liang,
Research Associate,
Organizational
Behavior