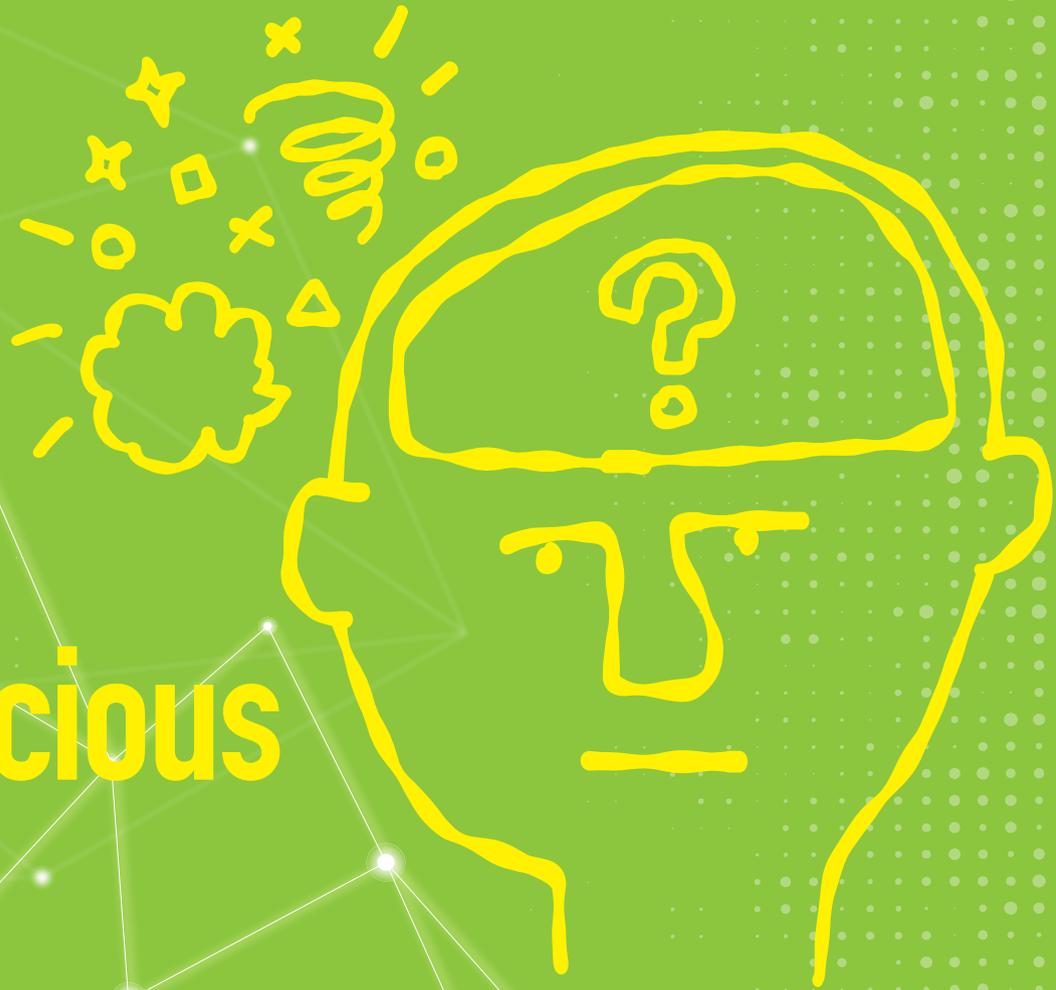




TOHOKU
UNIVERSITY

Strengthening Research Capacity Through Diversity

– Overcoming unconscious bias that impedes
fair evaluation –



Unconscious Bias

Introduction

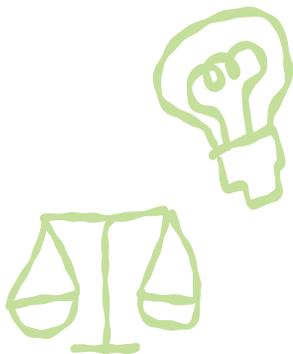
Tohoku University has been working to strengthen its research capacity through diversity. This leaflet outlines key considerations for minimizing the impact of unconscious bias in the hiring and evaluation of researchers, so that outstanding researchers at our university can fully realize their potential.



1 What Is Unconscious Bias?

Unconscious bias refers to prejudices or assumptions that everyone acquires unconsciously and often remains unaware of. We tend to judge or evaluate individuals not based on who they are, but rather on various attributes such as gender, race, age, or place of origin. It is important to understand when and how unconscious bias arises in order to minimize its impact.

For more information, please refer to the leaflet "Understanding Unconscious Bias" by The Japan Inter-Society Liaison Association Committee for Promoting Equal Participation of Men and Women in Science and Engineering
<https://djrenrakukai.org/unconsciousbias/leaflet.html>



2

Diversity in Selection and Evaluation

Eliminating unconscious bias and ensuring that diversity is taken into account in the selection and evaluation of candidates is essential for securing outstanding talent. To achieve this, there must also be diversity among the members of the committees involved in personnel selection.

An increasing number of organizations are providing their staff with training to recognize unconscious bias, especially those involved in recruitment tests and appraisals, and members of personnel selection committees.

CHECK!

Here are some basic points that everyone should be aware of, to ensure transparent personnel selection and evaluation:

- Unconscious biases can occur through our tendency to feel closer to people who are similar to us (for example, in gender, national or educational background), and to feel more cautious towards those who are different.
- Certain attributes (gender, national or educational background, affiliation, previous employment, etc.,) may evoke representative images (or stereotypes). These may affect how we evaluate candidates and make hiring or promotion decisions.
- A person's physical appearance, facial expression, mannerisms or other attributes that resemble someone we know - even if they are totally unrelated - can influence our opinion of that person.
- Bias can cause us to judge or categorize a person at the start of an interview. The questions we subsequently ask may then focus on trying to verify our assumptions.
- In meetings and committees for hiring and promotion, attributes such as gender or nationality may influence decisions rather than ability or achievements.
- Time pressures, fatigue and information overload can exacerbate the impact of bias in decision making.
- Selection and evaluation criteria should be designed to ensure fairness from the perspective of diversity, and with an understanding that some candidates may have life events such as childbirth, childcare, or caregiving responsibilities.
- Excessive consideration based on one-sided assumptions about personal attributes or circumstances—such as 'they may have family obligations'—may risk depriving individuals of challenges and opportunities.
- To conduct fair evaluations, the selection and evaluation criteria should be determined in advance and shared among members of the personnel committee.
- While building upon past academic achievements and evaluations, it is also necessary to consider the potential influence of unconscious bias and strive to enhance fairness and validity.
- Decisions regarding the suitability of a candidate or person undergoing evaluation should be made based on how they may contribute to the organization's future, rather than only considering the current circumstances of the organization.

3 The Case of Unconscious Bias

Yale University Study: The “John vs. Jennifer” Résumé Experiment

A study was conducted involving 127 science faculty members from major research universities in the United States. Participants were asked to evaluate application materials for a laboratory manager position, using fictitious student résumés. The documents were *identical in every aspect*, including qualifications and experience—the only difference was the applicant’s name: either “John” (male) or “Jennifer” (female).

The results were striking. Faculty members rated the male applicant as more competent and more suitable for hiring than the female applicant. They also offered “John” a starting salary approximately \$4,000 higher than “Jennifer’s.” Moreover, they were more willing to offer mentoring opportunities to the male candidate.

This bias was consistent regardless of the faculty member’s gender, age, field, or academic rank. Notably, those who held stronger beliefs aligned with “modern sexism”—such as thinking that discrimination no longer exists or that women are overly favored—were more likely to rate the female applicant lower. In contrast, such personal biases did not significantly affect evaluations of the male applicant.

These findings suggest that even scientists, who value objectivity, may unconsciously be influenced by socio-cultural stereotypes—such as the belief that men are inherently more competent in science.

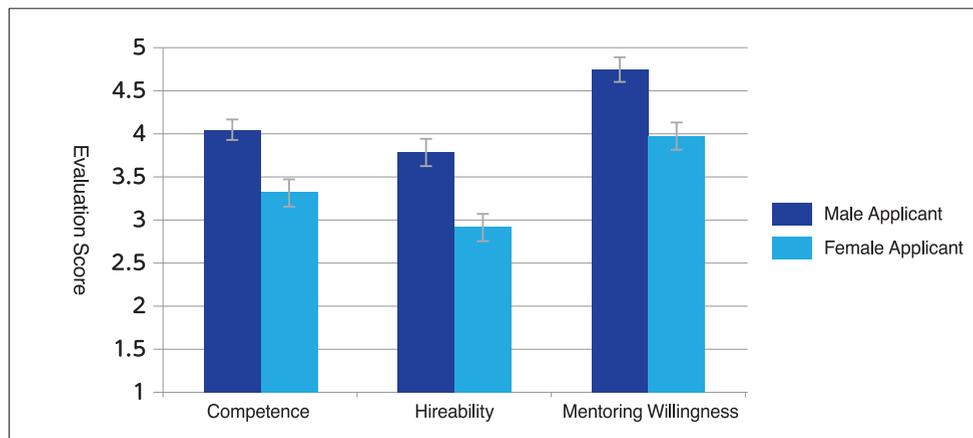


Figure. Ratings of Competence, Hireability, and Mentoring Willingness by Applicant Gender

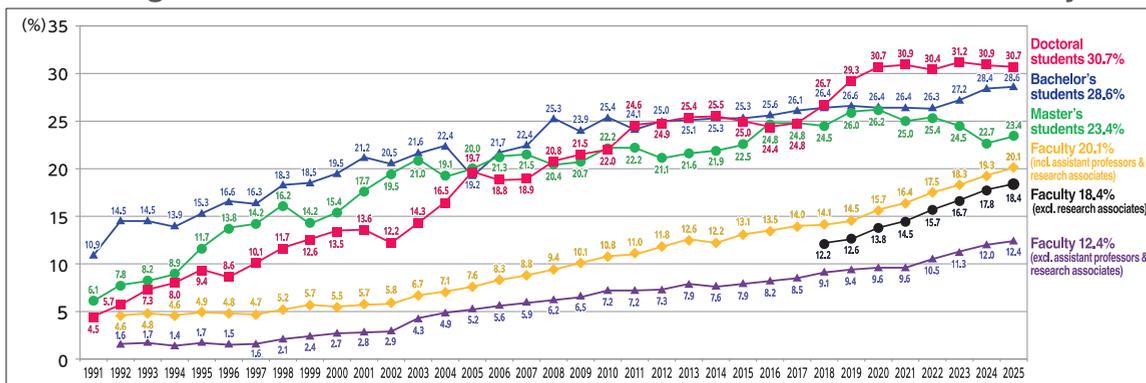
- Ratings were measured on a 1–7 scale, with higher values indicating higher evaluations.
- Differences by applicant gender were statistically significant for all measures ($P < 0.001$).
- Error bars represent standard errors (SE).
- Sample size: male applicant ($n = 63$), female applicant ($n = 64$).

From Moss-Racusin et al. (2012) “Science faculty’s subtle gender biases favor Male students. Proceedings of the National Academy of Sciences”
Proc Natl Acad Sci USA 109, 16474–16479.

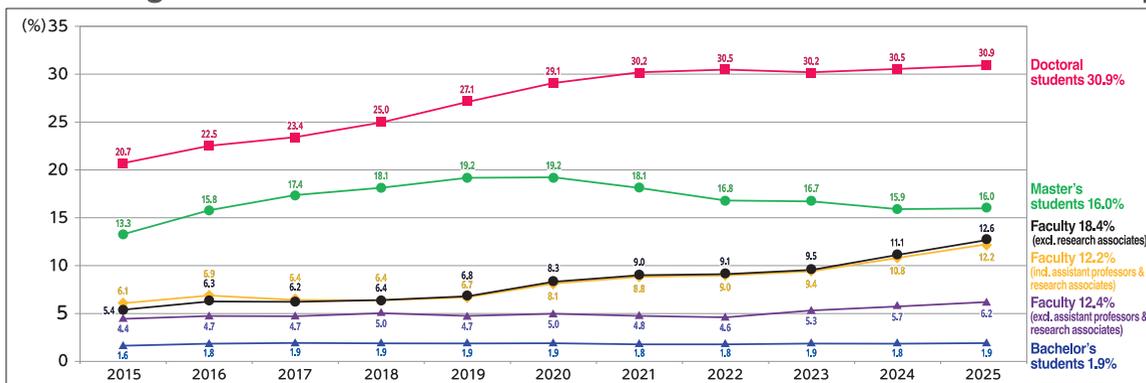
4 Current Status and Targets at Tohoku University

The proportion of female faculty members (including assistant professors and research associates) has increased from 4.6% in 1992 to 18.4% in FY2025. The proportion of female students at the bachelor's, master's, and doctoral levels has also grown, supported by outreach activities that encourage girls in junior and senior high school to pursue STEM fields. In addition, the number of international faculty members and international doctoral students has steadily increased over the past decade. However, all of these remain below international standards. As Japan's first University for International Research Excellence, Tohoku University has set ambitious targets to be achieved over the next 25 years: 40% female researchers, 30% international researchers, and international students accounting for 20% at the bachelor's level, 40% at the master's level, and 40% at the doctoral level. Achieving these goals will require further sustained efforts.

Percentage of Female Researchers and Students at Tohoku University



Percentage of International Researchers and Students at Tohoku University



Faculty figures exclude cross-appointed and outsourced staff.

5 Tohoku University's Initiatives to Advance Diversity

Friendly relationships between people belonging to different groups have been shown to reduce stereotypical beliefs and negative attitudes. In addition, our personal connections with others can help us overcome potential bias when working towards a common goal.

Tohoku University strives to remain mindful of unconscious bias, to ensure that all our personnel selections and evaluations are based on fairness and a respect for equity and diversity.

Tohoku University Initiative I

Advancing Gender Parity

As a University for International Research Excellence, we aim to achieve 40% representation of female researchers over the next 25 years. To reach this goal, we continue initiatives such as female-priority recruitment and the “one-third target,” which ensures that at least one-third of new hires are women. Additional measures include headhunting female researchers for senior positions and conducting international recruitment exclusively for women.



Tohoku University Initiative II

Promoting Internationalization

As a University for International Research Excellence, Tohoku University aims to achieve 30% international researchers within 25 years. To support this goal, we are developing the “International Excellence Career Track” and promoting organizational internationalization through initiatives such as the use of plain Japanese, bilingual documentation, and support services led by the International Support Center.

Tohoku University Initiative III

Enhanced Support Systems

We offer unique work-life balance programs and provide childcare and caregiving support through our DEI Center. We also run dedicated programs to foster the development of female researchers. For international students and faculty, the International Support Center offers personalized assistance for daily life needs.



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This leaflet is available
on the website of
Tohoku University Center for
Diversity, Equity and Inclusion.