

Chapter 2

Bias Literacy: A Review of Concepts in Research on Gender Discrimination and the U.S. Context

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ABSTRACT

*The chapter offers a quick digest of the evidence for discrimination, especially with reference to women in science and engineering in the U.S. It explains common terminology and lists relevant legislation and national policy initiatives. The chapter summarizes the difference between tradition and bias, conscious and unconscious discrimination, overt and covert discrimination, and personal versus institution bias. Drawing on research in psychology and social science, it summarizes core concepts including: gender schema, accumulative advantage, stereotype threat, implicit bias, glass ceiling, mommy track, occupational segregation, statistical profiling, climate study, and the value of diversity in learning. A short section lists some U.S. national and international approaches to measuring whether discrimination is occurring and how improvements are benchmarked. There is a list of major organizations working for diversity in the U.S., with links. Many of the concepts are more fully described in the recent U.S. national report *Beyond bias and barriers* (2007), which inspired this literacy effort.*

INTRODUCTION

The idea of literacy is applied to many types of knowledge and skills. It usually refers to basic competency in a skill set (e.g., reading or writing) or a profession (e.g., computer technology). Literacy is

a set of expectations for knowledge among people who share a culture -- what any insider knows.

Bias Literacy is a timely construct because many individuals and organizations are engaged in understanding the problem of discrimination in society and in the workplace, but have not anchored their thinking in reflection and research on discrimination. When -- in what contexts -- do we claim that

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someone is discriminating and is biased? How do we arrive at that assessment?

We also believe that literacy is the first step toward action on bias. This is not an intellectual exercise. Once we understand the dynamics and impacts of discrimination, we should understand what to do, and what others are doing successfully, in order to make bias transparent where it has been hidden or unacknowledged, and to control illegal bias. We are all victims of discrimination when our society or profession or group is built on a false sense of equity.

Here, we use the enterprise of science and engineering as the social context from which to draw examples and research. We are concerned particularly with the extent to which women and minorities are treated with or without bias and discrimination in the American system of producing and employing scientists and engineers. We hope the dialog is improved by isolating the basics.

BACKGROUND

The Vocabulary

There are a few key words and phrases that occur often in the discourse about discrimination.

Bias. The definition of bias is inherently negative. It is to favor a view or group over others and to be unfair or partial to a view or a group. Regarding ethnicity, bias may be rooted in racism, which is to consider members of one race or group to be intrinsically superior to others. The *motive* for bias may be unconscious and unintended, however. Bias can be rooted in tradition or prejudice, such that the socialization of children and new members encourages members of a group to be biased against members of another group. (“Asians are superior to whites.” “Women do not have a brain for math.”) Bias can also be unobservable. We discuss these dimensions in the next section.

Discrimination. “Discrimination” is a synonym for “discernment.” It is not inherently nega-

tive to analyze differences among things or people, and to make distinctions. It is negative when it is acted upon: treating an individual based on a class or category – such as a stereotype or statistical profile – to the detriment of the individual. (“A woman who becomes a mother will lose interest in her scientific work.”)

Prejudice. When a person holds or expresses an adverse, preconceived judgment or opinion about someone else, they are prejudiced. The meaning of the word emphasizes a lack of evidence, and a lack of interest in seeking evidence to sustain this attitude.

Bigotry and Misogyny. These two words are placed together because they both mean irrational suspicion or hatred of a particular group, race, or religion. The common aspect is hatred. Extreme prejudice and extreme discrimination are behind bigotry and misogyny. They imply not only a lack of information or a lack of sophistication, but deep emotional roots and conviction. (“No woman is going to get tenure here.”)

Intolerance. Intolerance is a version of bias and discrimination. It stands for the unwillingness to recognize and respect differences in others. There is not necessarily a feeling of superiority on the part of the intolerant person, but possibly a feeling of impatience, discomfort, or dislike (i.e., lighter versions of bigotry and misogyny).

To Be Fair. What does it mean to be without bias and without prejudice, and to be fair? We suggest that *social tolerance is the capacity to recognize different beliefs, practices, and life experience in others, and to respect others in spite of their difference from you. It means holding stereotypes at bay. It means letting the merits of an individual trump preconceived, unsubstantiated negative assumptions about the individual's group. It recognizes that an individual may not represent the group—especially not a gross statistical profile or reductionist view of a group.*

Social Justice. The cause of social justice is about making society fair in its distribution of rewards and burdens. The “cause” is not neces-

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