2.2 Sexual Displays and Discussions

2.2.1 Different Reactions

At the workplace, many women feel uncomfortable with the "locker room atmosphere", which includes pictures of nude or partially nude women on posters or computer screens and the telling of dirty jokes. Unlike the sexist remarks described above, however, there is disagreement among women on how inappropriate these actions are, with a significant number of women not personally offended by the behavior (although some of these women oppose it on the grounds that it upsets other women). This point is illustrated by the different reactions in the following examples:

- When a graduating engineer was touring a company that wanted to hire her, they took her through the laboratory, which had a pin-up on the wall. The other people in the lab (men) and the men showing her around seemed oblivious to the poster and to her discomfort. She felt uncomfortable with the idea of working in a laboratory with a picture like that up and ended up refusing the offer, partly for this reason.

- When a graduating computer scientist was taken out to lunch by engineers of a small computer company, one of the topics the employees (all male) discussed was a series of lingerie shows in the region. The student did not feel uncomfortable about the subject matter, and it did not affect her decision about the company, but she thought it was something which might make other female interviewees uncomfortable.

- When a computer science undergraduate had recently begun working in a research group at her university, some male graduate students entered the office and began playing an "adult" computer game, "Leisure Suit Larry," crowding around the screen, discussing the game loudly. The undergraduate left the office because the situation made her too uncomfortable for her to work there. When she recounted the story a year later, she said that she would not react the same way now and would either be able to keep working or would say, "Hey, get out of here, guys." The change was due to her feeling more confident about her position in the group and knowing the individuals personally.

One female computer science student explained one reason that some women are offended by sexual humor while others do not understand what the fuss is about:

> I have noticed that how offended I am by [gender-related humor] depends very strongly about how comfortable it is to be female and in the present environment.

> When I first entered grad school in the CS [X] group at [Y], there were some women graduate students, but only a couple. A secretary deliberately placed me, when I arrived, sharing a desk with a male graduate student who was at that time desperately trying to find a woman (she was trying to be nice) — a professor had a 'funny' newspaper article about [a sexual topic] posted outside his door. Don't get me wrong, I found nearly no-one among the faculty and graduate students who was anti-women or took me or my work or my concerns any less seriously than any other first-year student. Still, the graduate students were 90 percent men, and they talked all the time about how hard it was to meet 'available' women, and as a first year student trying to establish myself within their community, I found the 'locker room' atmosphere oppressive and daunting. If someone had sent around [a sexist joke through email] that year, I think I would have hit the roof. In a world where I was struggling to find my place, it would have just helped to undermine it.
>
> Today the graduate student population in CS [X] has quite a few more women, and is much more comfortable. Instead of the "guys" in school here, it's the 'people' in school here.... In my current environment I might have easily [passed along the joke] to my [male] office-mate.

2.2.2 Attempts at Changing Behavior

Some computer science graduate students and staff at Carnegie Mellon were sufficiently disturbed by the display of nude pictures as backgrounds on computer terminals that they got together and tried to change the situation by publicly appealing to the community. [CMU 1989] is a fascinating report describing their appeal and the friendly and hostile reactions. Their appeal included the following passage:

> When a woman sees such a display on your workstation, is she likely to believe that you take her seriously as a fully contributing member of the department? Rather, she may feel that you could be a source of sexual harassment, and feel hostile towards you, or nervous about working with you. If so, that is a loss for you, for her, and for all of us. Among the visitors to the department, some of whom are prospective students, staff, or faculty, there are surely some who will view us as unprofessional if they see these displays, and this hurts us all, too. Conversely, an environment more hospitable to women — specifically, one in which relations between women and men are less strained — is of clear benefit to men as well.
>
> For some people, displays of naked women on workstations, or elsewhere in offices, remind them of the forces in our culture that view

> women as sexual playthings, not as men's peers. For others, such reactions do not occur. People who are offended will interpret such displays as derogatory, even if that is not your intent. We therefore ask you to refrain from using them out of respect for those who are offended, even if you believe the offended people are just overly sensitive [CMU 1989, page 2].

The appeal closed by making clear that they were not advocating banning such displays but were requesting that people voluntarily remove them out of sensitivity to others. Responses about the appropriateness of the displays and of the appeal were mixed and are categorized in the report. Negative reactions included the position that the writers were advocating censorship "like the Nazis or the Ayatollah Khomeini," that people should not be asked to change their behavior merely because of what others might think, and that a public appeal was inappropriate but instead should have been made by individuals to individuals. Of those agreeing, the majority of responses said that the request was reasonable and not an attempt at censorship, that it prevented people from unintentionally giving offense, and that it was effective at raising consciousness. In response to the criticism that individuals should complain personally, several women wrote that "[w]omen asking for changes in behavior individually are exposed to ridicule and abuse" [CMU 1989, page 4]. This point was echoed by a woman quoted in a paper about the "Garden", a laboratory in the MIT Media Lab:

> [W]hen comments are made about the offensive nature of the music or movies, they are often ignored, or belittled, or are chortled at. Ironically, once you are labeled a feminist in the Garden, your comments are taken less seriously, because you are considered radical and your judgment less fair [Tidwell 1990, page 14].

Both the Carnegie-Mellon and Garden papers conclude that the attempts at changing people's behavior were somewhat, but not highly, successful.

2.3 Behavior Due to Sex-Correlated Differences

An additional category exists of behavior that is not directly based on sex but which nevertheless discourages women. While attempts at changing sexist behavior are partially effective, there seems little that can be done about this category.

2.3.1 Socializing with Co-workers

Through no real fault on any side, a woman sometimes feels out of place being one of the few women in a semi-social gathering with a group of men, even in the absence of any behavior directly related to the sex of the participants. One reason is that, in our culture, men are often interested in activities or topics that women tend not to relate to.

A female graduate student complained about her experiences as a teaching assistant (TA) for a course in a particularly male-dominated area of computer science. She wrote:

> Perhaps because the percentage of males is often high, men tend to dominate non-academic discussions with topics of interest to them, such as sports and cars, topics which women are often uninformed about or uninterested in. The resulting inability to participate in discussions can make it difficult for women to bond socially, and often leads women to feel outright alienated... This is exactly what happened to me at each T.A.–faculty meeting.

Another female computer science graduate student described a similar experience:

> My first summer at [a certain computer company], I worked in a group that was otherwise all male. While I got along okay with them and never had any behavior to complain about, I didn't socialize with the group. For example, every day after lunch, they would go outside to 'shoot some hoops' [play basketball], an activity that I just did not relate to. For my next summer, I joined a group that had other female programmers and a female manager. I was much happier in that group. We would have barbecues, celebrate people's birthdays, and socialize in other ways that I related to better than 'shooting hoops'. My third summer, I chose to return to this group and not to the first one or to find a new group.

However, when she casually discussed her social dissatisfaction in an exit interview with the department head, he pointed out that, coming from a different country, he did not relate to American sports either. This raises the important point, which holds for all examples in this section, that dissatisfaction with certain activities is not strictly divided by sex. There are individual women who enjoy sports and are better at them than some men. Sex-based differences are a tendency, not a fixed rule. Sex-correlated preferences in our society, however, are strong enough that these phenomena tend to work against women (or whoever is underrepresented in a group).

Additionally, female group members do not always feel comfortable joining male group members who go out drinking together. Not only might they not enjoy drinking, but some men are inclined to making lewd remarks after a few drinks. Thus, there are often times when women feel unable to take part in activities to which, as group members, they are invited.

Another problem is that some men do not feel comfortable socializing in a professional manner with a woman, as this anecdote illustrates:

> I was ... the first full-time woman faculty member in my department. There really was difficulty among my male colleagues in associating with a woman as a colleague. I think they literally did not know how to talk to me, and as a consequence often just did not talk to me. They would ignore me. They would not invite me to have lunch with them, which was a very ordinary experience there ... they would walk past my office and ask the next person and never ask me. [Years later] I asked one of my colleagues why this was so. And he said, 'You know what would happen if I asked you to lunch ... People would talk' ([Clark et al 1986, pages 36–37] in [Sandler 1986, pages 7–8]).

2.3.2 Different Communication Styles

The language that women use often differs from that of men in subtle ways. As discussed in [Hall 1982, page 9], specific constructions appear more frequently in women's speech than in men's:

- hesitation and false starts ('I think...I was wondering...')
- high pitch
- 'tag' questions ('This is really important, don't you think')
- a questioning intonation in making a statement ('The second chapter does most to clarify the theme?')
- excessive use of qualifiers ('Don't you think that *maybe sometimes...*')
- other speech forms that are excessively polite and deferential ('This is probably not important, but...')

As Hall concludes:

> If, for example, a woman student begins her comments hesitantly and uses many qualifiers, she may be immediately perceived by her teacher and by her classmates as unfocused and unsure of what she wants to say. Her 'overly polite' style may seem to 'invite' interruptions by, or inattention from, both teacher and other students. Indeed, even the most insightful points made in this manner — *especially by a woman* — may be taken less seriously than the identical points made by a man or delivered in a more 'masculine' assertive style [Hall 1982, pages 9–10].

See also [Lakoff 1975].

A large part of Jenifer Tidwell's report on the Garden [Tidwell 1990] describes how men and women react differently to the same treatment, due to their expectations of communication styles:

> The persons I interviewed did not believe that women were treated worse than the men were, nor vice versa, when I asked them directly. ('Everyone is treated equally badly,' said one male informant.) Yet some informants, both male and female, commented that women may not be able to deal with the Garden's harshness as well as the men do — not because of any inherent weakness, but simply because they have not been brought up with the same expectations of 'toughness' (in one man's terms) that men have. Furthermore, it seems more acceptable for anyone there — male or female — to try to solve all one's problems by oneself than to habitually ask for help. All of the women that I interviewed commented on this expectation of independence (whereas almost none of the men did); they did not like it [Tidwell 1990, page 9].

Tidwell writes that the attitude is that "[what could be construed as] harassment may just be social incompetence" [Tidwell 1990, page 15, brackets in original].

Anecdotal evidence suggests that women tend to be more sensitive than men to general obnoxiousness [Widnall 1988, page 1744]. When a female computer science student told me that a male TA had been inexcusably rude to her in front of the class, I looked up the student evaluations of the TA and found this comment, by another student:

> [He] knows his stuff cold, but he's too rude. Honestly, once you humble yourself and tolerate this, he is an excellent source of help. I owe a lot to him.

A student unused or unwilling to being treated rudely would not be able to interact with such individuals.

When I sent electronic mail to a group of women asking for criticism on the first version of this report, one woman replied that my request was unlikely to draw many responses. Instead of asking for "criticism", she told me, I should have asked for "feedback to help me improve the report", something women would feel more comfortable supplying.

Steven Levy's *Hackers: Heroes of the Computer Revolution* extensively describes the hacker culture, including the hackers' apathy and even antipathy toward women.

> Maybe it would have been different if there had been more women around TMRC [Tech Model Railroad Club] and the ninth floor — the few that did hang around paired off with hackers.... There were not too many of these women, since outsiders, male or female, were often put off by the group: the hackers talked strangely, they had bizarre hours, they ate weird food, and they spent all their time thinking about computers [Levy 1984, page 72].

Levy goes on to describe the poor hygiene of one of the most admired hackers, a young man who did not bathe [Levy 1984, page 73].

Male computer environments that exclude women have occurred as early as in preschool:

> Even in preschool, males dominate the school computers. In one preschool, the boys literally took over the computer, creating a computer club and refusing to let the girls either join the computer club or have access to the computer. When the teachers intervened and set up a time schedule for sharing computer access, the girls spent as much time on the computer as the boys [Kiesler et al 1985, page 454].

While it is not clear that one can justify the stereotype of the engineer and computer hacker as socially backwards, women are deterred by the environment.[3] (See [Markoff 1989], for example.) Additionally, whether the stereotype is accurate is to some extent irrelevant: If females believe that to study or work with computers requires hanging around socially incompetent nerds, the stereotype, true or false, may influence their decision.

2.4 Finding a Mentor

Having a mentor or sponsor can be of vital importance to a graduate student or junior professor:

> The sponsor may serve many functions for the protégé. First, the sponsor introduces and initiates the protégé in the customs, demands, and expectations of academic life. Second, the sponsor shares his or her wisdom and knowledge with the protégé, and provides encouragement and comments on his or her work. Third, the sponsor can provide career assistance for the protégé by making recommendations to his or her colleagues at other institutions, or simply by sharing a bit of the deflected glow from his or her own shining reputation. Perhaps most important, the sponsor helps to form with the protégé the sense of him or herself as a member of the profession, encouraging and fostering a self-image as a legitimate member of the community of scholars [Simeone 1987, page 101].

Despite the importance of having a mentor, there are few formal policies to ensure that every graduate student or junior faculty member receives mentoring. Although every graduate student, for example, has a thesis supervisor, the supervisor typically devotes different amounts of energy to different students. It is reported that "women are more likely than men to be excluded from this sort of relationship with senior faculty" [Simeone 1987, page 102] [Hall 1982, page

[3] It is worth noting, however, that some men are disgusted by the hacker culture, such as MIT professor Joseph Weizenbaum [Levy 1984].

10]. There are several possible reasons for this exclusion. First, as discussed above, some men feel uncomfortable dealing with women as professionals. Second, some "faculty men may see women as being different from themselves, less intellectually able, less committed and dedicated, or simply inappropriate for academic careers" [Simeone 1987, page 103]. Third, when men and women work closely together, there is the risk of their being suspected of having an affair [Simeone 1987, pages 82–83]. Additionally, many people like to help people who are "like" them, i.e. of the same sex or race. (Indeed, that was a motivation for my writing this report.) As long as most of the people in positions of power are men, and as long as differences in sex are considered to be of great importance, junior men will benefit.

2.5 Behavior Specific to Technical Events

Computer trade shows and technical conferences are often even more male-dominated than the workplace and university. Some of the specific problems of these events are discussed in this section.

2.5.1 Trade Shows

Men far outnumber women at industry and academic conferences. At trade shows, particularly, companies have "historically employed attractive women to draw attention to product exhibits or booths" [LaPlante 1989]. While this practice has been declining, an industry journal article about Comdex 1989 reports:

> A number of companies still insisted on hiring scantily clad female models to attract attention to their booths. And a party thrown by Fujitsu went far beyond questionable taste, seriously offending Comdex attendees of both sexes [LaPlante 1989].

Additionally, when women do attend, they are suspected of not being legitimate attendees:

> [PFS Inc. president Mary] Rich remembers attending the National Computer Conference (NCC), a now-defunct computer convention, where the male attendees outnumbered the female ones by a ratio of 300 to 1. Convention officials as well as hotel staffs were extremely suspicious of single women, Rich said. Women were often suspected of being prostitutes trying to solicit show attendees. Rich said she once tried to go to the hotel room of a colleague for a drink only to be kicked out by security when trying to get in an elevator.
>
> Rich, who co-chaired the 1986 NCC with another woman, said that as recently as three years ago one of the primary concerns was how

> women were being treated at the show. 'We still had problems with security not believing [the credentials of] women trying to get onto the show floor,' she said [LaPlante 1989].

2.5.2 Technical Conferences

Women are treated better at technical conferences than at trade shows. While I have never seen any reports of a female speaker or attendee being mistaken for a prostitute, people sometimes assume a woman to be the wife of an attendee and not an attendee herself. Additionally, female computer scientists complain of being propositioned by male attendees. While this probably happens at trade shows too, its happening at conferences leads to particularly touchy situations because the women do not want to offend potentially important men in their field and feel obliged to find delicate ways to reject indelicate offers. Because of this, many women act cold to men they meet at conferences, which has the side effect of discouraging friendship with colleagues who could be useful contacts.

A female computer scientist, with experience in several fields, described another problem with being one of the few attendees who needed to bring along their child:

> One difference between biology and computer science that I have noticed is that it is not unusual for childcare to be provided at professional conferences in biology, while I have never seen it offered at AAAI [American Association for Artificial Intelligence], IJCAI [International Joint Conference on Artificial Intelligence], Cog Sci, or ACM [Association for Computing Machinery] conferences. I have a baby that I won't be able to leave overnight for about 2 years (because of breastfeeding), but it is difficult to make daytime childcare arrangements for an out of town conference oneself. Even with an older child, it can be difficult to make the night-time arrangements at home if the child is left behind (traveling spouse, single parent, etc.), so bringing the child along might be preferable if childcare were available.[4]

Additionally, another female computer scientist told me that "some conferences organize 'spouse events' which tend to run to fashion shows, shopping, etc. My husband finds this strangely unappealing!"

Presumably, conference hosts do not mean to discriminate when they fail to provide childcare or provide activities of interest to wives of attendees — I assume that, if the issue crosses their minds, they assume that the number of exceptional attendees would be too small to justify the expense of providing for them. This is an example of how, entirely in the absence of any bad intentions and purely due to the ratio, conditions can be such that a class of attendees cannot conveniently take part in a professional event.

[4] I have been told that childcare was arranged for this year's AAAI.

2.6 Different Priorities

2.6.1 Family Life

Having a support spouse, usually a wife, is a boon for anyone but especially for pre-tenure professors, for whom it is not unheard of to work hundred-hour weeks. Since women rarely have a spouse willing to tend house for them, while male professors and graduate students sometimes do, the women are often at a relative disadvantage. Additionally, wives are often more willing to relocate for their husbands than vice versa [Ferry et al 1982, page 29]. As one computer scientist said:

> There was an article in Chronicles of Higher Education about 3 years ago by a male professor who wrote about how he and his wife (also a professor) needed to have a third party — a wife... The gist of his argument is that faculty workload is based on antiquated notions of unquestioning, full-time support from a spouse, and that universities need to revise their expectations of professors [Frenkel 1990, page 41].

Women in academia have the additional problem that the years in which they must work to get tenure are a significant portion of their child-bearing years. In [Frenkel 1990, page 41], one woman gives this as a reason for choosing industry over academia. Additionally, some women "prefer to take a less demanding job than their qualifications fit them for, because they feel that the time and attention they can afford on top of their responsibilities at home is limited" [Ferry et al 1982, page 30]. This might be one reason that female computer science PhDs are less likely than their male peers to enter academia, more often choosing industry instead.

Not only are some women unwilling to sacrifice family for work, a choice that men rarely have to make, but when women do decide to put their career first, it is still assumed that they do not take their career seriously. According to a survey of (English) female engineers and scientists:

> The most trying moments in almost every woman's life seem to have been spent in interviews. The women in our survey have nearly all taken the trouble to equip themselves with a qualification that might suggest they had ambitions beyond boiling nappies [diapers] and making their husbands' tea. Yet time and again they have found themselves being pulled apart on the subject of whether or not they are likely to leave soon in order to marry or have children [Ferry et al 1982, page 28].

Similarly, a study of the hiring of scientists and technical staff at the National Health Service found that employers often assume

> that all women will leave to have babies and that wastage due to pregnancy is greater than for any other reason. The pervasiveness of [this myth] was shown by the way in which they influenced practices at selection (for instance, only women were asked questions about marital status and dependent children). They also influenced notions of who can be a manager [Homans 1987, page 90].

So even if a woman chooses not to have children or not to take time out to raise them, employers will often assume otherwise and treat her accordingly. Furthermore, pregnancy does not always cause women to miss much work. An army study found that "even when pregnancy leave is included, [enlisted women] take less time off than men, who lose it to sports and auto injuries and drug, alcohol and discipline problems" [McNeil 1991].

Power can be another factor in why women choose not to be professors. The following was written by a woman who had been a professor but had switched to an industrial research position:

> A year ago I would probably have agreed with the popular conclusion that academia is difficult for women because of the time demands, coincidence of tenure with child-rearing, etc. After a little more than a year in industry, I've discovered another reason that academia can be difficult for women. I now believe that to be highly successful in academic research, one has to be very interested (invested?) in having power. Power over grants, over students, over committees, etc. I often heard professors referred to as empire-builders, something that I see very little of where I am now. Often the most successful researchers in my current environment are the ones who actively *avoid* politics and power-struggles and just 'do their work'. As a woman I don't think that I am especially comfortable or adept at the power-games that I witnessed in the university.

Of course, there are also men that dislike power and women who revel in it. Nonetheless, the tendency of women to be less comfortable with power than men may hold in our current society.

2.6.2 The Hacker Culture

Some hacker subcultures have the property that the hackers spend nearly all of their waking hours, and miss sleep, to use the computers. In his discussion of the absence of female hackers, Levy writes: "There were women *programmers* and some of them were good, but none seemed to take hacking as a holy calling the way Greenblatt, Gosper, and the others did" [Levy 1984, page 72].

Another hacker classic, Tracy Kidder's *Soul of a New Machine* describes the intensity of the designers of a new computer:

> Going to work for the Eclipse Group could be a rough way to start out in your profession.... [Y]ou don't have any time to meet women, to help your wife buy furniture for your apartment, or to explore the unfamiliar countryside. You work.... You're working at a place that looks like something psychologists build for testing the fortitude of small animals, and your boss won't even say hello to you.
>
> New and old hands told the same story. Chuck Holland: 'I can hardly say I do anything else now. It takes about three days to get Eagle out of my mind, so if you have a three-day weekend, you're just sorry to see Monday come.' Microkid Betty Shanahan, the group's lone female engineer: 'You can end up staying all night. You can forget to go home and eat dinner. My husband complained that the last three times he's had to do the laundry.' Jon Blau: 'I've had difficulty forming sentences lately. In the middle of a story my mind'll go blank. Pieces of your life get dribbled away. I'm growing up, having all those experiences, and I don't want to shut them out for the sake of Data General or this big project' [Kidder 1982, pages 60–61].

I have been told that, after this book came out, MIT students lined up to interview with Data General, so the described work environment does appeal to some computer science students. In our society, however, women are often less willing or able to devote all of their life to a job, particularly because working full force is often difficult without a support spouse to take care of other parts of one's life.

When reading how intensely and single-mindedly the hackers work with computers, it is hard not to question the people who love the computer to the exclusion of all else, an opinion expressed by the writer of the following letter, written in response to [Markoff 1989], but equally applicable to the environment described in *Hackers* and *The Soul of a New Machine*:

> To the Editor:
>
> You regretfully wonder why women have not done as well at computers as men. You define the issue inside out. The problem is not women's experience with computers but men's. If a 'passionate romance' with the machine is the key to excelling, we should pity the men who do rather than the women who don't.
>
> I am not a feminist crank at either end of that interesting spectrum, but no girl or woman I know is so alienated from her fellows that she 'spurns the real world to master a universe locked inside a computer.'
>
> Machines do seem better suited for use than for passionate romances. So why regret women's attitude toward them? Why not

> worry about yet another generation of men who are sealing themselves off from human contact [Harrigan 1989]?

It is important to remember that women who do not throw themselves into the computer world might not be inferior to men but that sacrificing everything to computers might not be something that a psychologically healthy human being does. Perhaps men and women alike would be better off if some jobs and hacker cultures did not require giving up the rest of their lives.

2.7 Sexual Harassment

Because I take it for granted that readers consider sexual harassment to be offensive and harmful, I am writing little on the subject. It remains, however a serious problem. A recent survey of Harvard students and faculty revealed:

> Thirty-two percent of the tenured female professors, 49 percent of those without tenure, 41 percent of the female graduate students, and 34 percent of the undergraduate women reported having been sexually harassed by a person in authority at least once during their time at Harvard. Fifteen percent of the graduate students and twelve percent of the undergraduates reporting harassment consequently changed their academic plans because of it. Most did not report the incidents [Simeone 1987, page 115–116].

Other studies, such as [Baker 1990] find even higher percentages of women sexually harassed. See also [Gross 1991], an account of the hostile environment for women at Stanford Medical School, which was recently called to attention by the resignation of a female neurosurgeon.

2.8 Summary

Because computer workplaces are often overwhelmingly male, women find themselves in what sometimes feels like a locker room environment, having to put up with behavior they might find offensive, such as sexist or sexual humor and female pin-ups. Additionally, some men use sarcasm or insults to communicate more than women do, causing women to interpret the environment as hostile, even when no offense is meant. Also, because males often have different interests than females do, such as in sports, women may not feel as though they fit in. These factors can cause a woman to feel out of place in a computer workplace and make it difficult for her to picture herself as a computer professional.

Chapter 3

Gender in Language

If a woman is swept off a ship into the water, the cry is 'Man overboard!' If she is killed by a hit-and-run driver, the charge is 'manslaughter.' If she is injured on the job, the coverage is 'workmen's compensation.' But if she arrives at a threshold marked 'Men Only,' she knows the admonition is not intended to bar animals or plants or inanimate objects. It is meant for her — Alma Graham[1]

The Sapir-Whorf hypothesis of linguistics states that the limits of human thought are determined by the nature and the structure of the language in which thought occurs. One corollary, on which this chapter is based, is that the English language's use of gender forces people to think in terms of male and female, with its gender-specific third-person singular pronouns and its different titles, in some cases, for males and females.[2] While it is not necessarily bad to be immediately aware of the sex of someone being discussed, the connotation of male and female terms differ so greatly that the distinction not only implies difference but inequality. Biases in language are important because they show both the biases people hold and how they are communicated.

3.1 Referring to Unknown People

The English language has two sets of pronouns for the third-person singular: he/him/his and she/her/hers. It is practically impossible to talk grammatically about individuals without implicitly mentioning their sex. While this can seem benign, it has several significant implications, which will be examined in this chapter.

[1] Graham, Alma. "How to Make Trouble: The Making of a Nonsexist Dictionary." *Ms.*, December 1973, p. 16.

[2] Of course, many languages are even worse than English [Hofstadter 1986, chapter 7].

When A mentions a person unknown to B ("my biology teacher"), B must find out whether the third person is male or female in order to know how to phrase questions ("How is he/she?"). If A does not provide the information, B will usually guess the default pronoun from what is known — e.g. "he" for a professor, and "she" for a secretary. Most often, this is done subconsciously, showing the speaker's preconceptions. It seems reasonable to expect that when children hear their parents using their best guess for people discussed, they will subconsciously conclude that a man's being a scientist, for example, is normal, while a woman's being a scientist is unusual.

It is common for female scientists to be incorrectly addressed. They tend to consider these incidents humorous, and they trade horror stories:

- One [female] computer scientist with an ambiguous first name wrote:

  > [M]y favorite case in this regard occurred about two years ago, when I received a letter addressed to Mr. [Name], saying 'Dear Mr. [Name]: I attended your presentation at the [A] Conference on [B]. Please send me copies of your related technical reports. Sincerely, Dr. X'
  >
  > Usually, my only response to such incorrect usage is to sign my return letter as Dr. [Name], but that one was too much for me to let slide unremarked. So I sent a reply as follows:
  >
  > Dear Dr. X: While I am accustomed to receiving letters addressed to Mr. [Name] from colleagues who have never met nor seen me, I found your letter quite puzzling. You began by saying you attended my presentation at the [A] Conference on [B]. Surely you must have noticed that I am female! If this was a secretarial error, you might alert your secretary that female computer scientists exist and that in cases of doubt, "Dr." is a genderless form that is unlikely to offend (and may in fact be correct). Sincerely, Dr. [Name].
  >
  > I neither expected nor received a reply, but I felt better, and maybe I saved some other female computer scientist from one of those letters.

- Ironically, when a science magazine ran a survey of its female readers, the female journalists who received the responses found that about half the women had addressed the replies, "Dear Sir" [Ferry et al 1982, page 27].

- A female computer science professor told me:

  > When I was applying for jobs, two of the computer science departments requested letters of recommendation for Mr. [Jane Linda Smith]. One almost immediately sent a followup letter, explaining that they were terribly sorry, that they indeed knew that [Jane Linda Smith] was female, and that they would