Chapter 6
The Strength and Challenge of Diversity

“It’s not the things you don’t know that trip you up. It’s the things you think you know, but you don’t. You fail to ask a certain question because you believe you know the answer. Separating your information from your assumptions can be very tricky business.”

~Claudia Gray (1970-), author, on the topic of research

6.1 Why Diversity Can Be Hard, or Your Brain Is Lazy

Research has shown that when you do something repeatedly, your brain creates habitual neural pathways that allow you to complete the task without paying much attention to it.\(^1\)\(^2\) This is an evolutionarily adaptive tendency, because it allows you to think about newer, more interesting things while you complete a familiar task, but at the same time, it allows you to mechanically go through the motions without paying attention to what you are doing.\(^3\) The more you do something, the more habitual it is and the better your brain gets at automating it, conserving processing power for other things.

This sort of neurological efficiency is also what tends to keep us doing familiar things instead of trying new ones. New activities are hard and require a lot more processing power than ones that are familiar, for which we have already built convenient and efficient neural pathways.\(^4\)\(^5\) This can lead us to avoid things that are new or too unfamiliar. When it comes to diversity, we naturally gravitate towards people who seem familiar.\(^6\)\(^7\) We already know them personally, they look like us, or they look like other people we know well. This tendency can lead us to spend networking events with our existing friends and colleagues rather than make connections with new people, and it is the enemy of both networking and diversity.

Developing your self-awareness and recognizing this tendency within yourself will help you choose when to avoid it and when to follow it. If you had a stressful day and only want to be in a familiar place with familiar people to comfort yourself, following the impulse towards familiarity is probably a good thing. However, if we repeatedly choose to spend time in spaces or with people that are already familiar, we miss opportunities to expand our network and grow in both
our personal and professional lives. Just like science, we stagnate when we do not acquire new data and new experiences.

The uncertainty of not knowing how someone will respond to us contributes to the challenge and discomfort of meeting new people of another culture, gender, or company. Fortunately, the process of meeting new people becomes easier with practice, and once the neural pathways are formed, they remain. Just as practice can improve your empathy and conversational skills, practice meeting new and different people will make it easier. But you have to practice and repeatedly do something to make it habitual and form those neural pathways, an investment that makes you more flexible and pays off for a long time.

One of the challenges that we face with respect to diversity is the subconscious assumptions that we make. Humans are very good at making snap decisions based on a very limited amount of information, something that has enabled our species to survive in life-and-death scenarios. This behavior (sometimes called “thin slicing”) is a valuable skill, but it operates on subconscious assumptions and biases, which can wildly skew the results. As scientists and engineers, we pride ourselves on being rational and logical, but it is only possible to be rational and logical when we make conscious decisions. One cannot be reflexive and rational simultaneously; unchosen and unexamined behaviors or responses are inherently irrational. With respect to diversity, many people do not operate in an intentional fashion and thus rely on subconscious assumptions and stereotypes. People of different backgrounds, origins, and genders can experience the same environment differently because of how people interact with them. Confusion or disagreements may be caused by this assumption, so ask questions.

Our subconscious assumptions and biases are a potential problem because they are typically based on stereotypes that we have about people who are different than us, whether that is gender, age, culture, or country of origin. While we may consciously embrace the idea of diversity, it is possible for our words and actions to betray negative subconscious beliefs about others and to impact them negatively, even if only subtly. It is important for us to examine our words and actions, identify their origin, and make an effort to act consciously so that we can choose our course of action rather than react without thinking.

A common assumption is that everyone experiences the same things that we do. This is normal thinking, but it is often inaccurate and can lead to misunderstandings and miscommunications. For example, one person may walk down a street and get chased by a dog, leading them to declare that they felt unsafe walking there. This might confuse another person who had a relaxing walk down the same street and did not encounter the dog. Unless they compare their experiences (the data they collected) and recognize the differences (dog versus no dog), they may misunderstand each other and never resolve why one person enjoys walking down that street and the other does not. This is a simplistic example, but it illustrates how the same things can be very different based on the person experiencing them.

Navigating diversity successfully requires us to consciously examine our behavior and its subconscious roots, and make intentional decisions about what we
say and how we behave. This takes mental effort, self-awareness, and empathy, and it is not easy. But it is not only the right thing to do in order to treat other people fairly; it strengthens us as individuals, and it strengthens our communities. Being self-aware allows us to speak mindfully and intentionally so that we can mitigate the subconscious biases that we have, and our empathy allows us to gauge how we are doing. We all have biases (assuming that you are human; if you are an alien or deity, it may not apply), but only some people do the work to become aware of it.

6.2 The Importance of Diversity

Diversity is strength. Just as networking is a problem-solving tool, so is diversity. If you imagine assembling a tool kit to do work in lab, you would not stock your toolbox with ten of the same tool. Neither would you want a homogeneous investment portfolio, gene pool, or ecosystem. An individual who experiences a diverse range of emotions is a healthier person than someone who rejects other emotions in the dedicated pursuit of happiness. Studies have shown that diversity in the workplace enables more productivity and creativity. In short, diversity is almost always a good thing and benefits everyone.

In reference to networking, a lack of diversity will hinder your efforts. For example, if you only know people in your own sub-field, you are likely to miss interesting, multi-disciplinary solutions to your research problems. The broader and more diverse your network, the more multi-dimensional it is as a problem-solving tool, and the more it will help you to expand and grow as a scientist or engineer. To diversify your knowledge and create a strong network, you should meet and connect with people from various backgrounds, including but not limited to education, employer type, color, gender, ethnicity, and country of origin.

Author Anecdote

The benefit of a highly diverse network was impressed upon me by an experience I had that was totally unrelated to STEM or my research. I enjoy writing fiction, and I received a critique on a story that suggested I use the text-to-speech function to locate typographical errors. At the time, I was also preparing essays for fellowship applications. This advice turned out to be incredibly useful in finalizing my essays. If I hadn’t been involved with networking via the critique website I was using, it would never have occurred to me to use the text-to-speech function to typo-check my fellowship applications.

Everyone has a different set of experiences, which makes diversity highly valuable for problem solving; diversity increases the collective intelligence of a group. Studies show that a group composed of high-IQ individuals who have the same profession, has a lower collective intelligence than a group of people who have a greater diversity of backgrounds. No matter how smart the individuals are in a group, homogeneity reduces the measured group intelligence, but diversity
increases it. Diversity matters more than individual intelligence when it comes to group settings.

A network’s strength has more to do with its diversity than its size. Aim to incorporate people of different ages, backgrounds, specialties, and walks of life into your network. In addition to attending events relevant to your specialty, also attend events with subjects that are adjacent to your work to add diverse and relevant connections in your network. Allow for serendipity to strike and occasionally participate in events that seem far afield. Planning and strategy are important, but leaving a little space for randomness can be beneficial by giving you interesting connections and valuable lessons you might not otherwise encounter.

### 6.3 Cultural Differences

Science is a global community, and over the course of your career in STEM you will encounter people from many different backgrounds. This is a good thing, because diversity fosters creativity, but it requires caution with the assumptions that you hold when meeting someone new. Foremost in your mind should be that the way you do things in your culture may differ from the way someone from another culture does things. Assuming that you can always do things your way or that your way is the only correct one can lead to confusion or discomfort during cross-cultural interactions.

For example, different cultures have different standards when it comes to touching, such as shaking hands, and the amount of appropriate personal space. In some cultures, any kind of physical contact between members of the opposite sex is inappropriate, whereas in other cultures kissing is the standard way to greet or bid farewell to someone regardless of gender. Therefore, when meeting people for the first time, be aware that their standard method of greeting could be different than yours, and respond in a way that keeps both of you comfortable. If the other person seems uncomfortable with your culturally appropriate greeting, change your approach and don’t take it personally. In such situations, being observant and empathetic, as well as asking questions, will help you navigate these potentially tricky issues.

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**Author Anecdote**

When I came to the end of the year that I lived in Japan, I wanted to hug people good-bye, which is typical of American culture. To my surprise, some of my Japanese friends refused to hug me—even members of my karate team who were willing to kick and punch me during practice! It wasn’t because they didn’t like me; it was because hugging is not a part of Japanese culture the way it is in the United States. What to me, an American, seemed perfectly normal was odd and uncomfortable to some of my Japanese friends. Should you ever find yourself in similar circumstances, accept refusal gracefully, do not push, and move on.
Cross-cultural interactions can benefit from advance preparation. If you know that you will be spending time with someone from another culture, or in another culture, do some research on cultural norms. If you are attending an event in a culture that is not your own, read up on etiquette in terms of social behavior and attire. You are likely to find a wealth of information with a simple web search. However, given the amount of erroneous information that exists on the internet, use this research as a rough guide; do not assume it is perfectly accurate. Even if the information is accurate, there are so many variations amongst people within cultures that it may not apply to the person with whom you are speaking. While it’s important to do this kind of research, it is also important to rely on your empathy and ask questions. Observation and questions will help you get to know the person better, and to observe the Platinum Rule (introduced in Section 3.6), much better than any assumption.

When asking questions, recognize that a person may not always want to explain their culture to you. They may get these sorts of questions often or not want to be a spokesperson for their community, so if they change the subject, accept that and move on. You can always preface questions with statements such as, “If you don’t mind me asking…,” or “If you get this question too often, please ignore it, but I am curious about…,” which indicates that you understand that they may not want to explain and gives the other party a chance to change to a different topic, if so desired.

Being a visitor in another culture also requires you to adapt to your audience in ways you may have never done before, and there is an important balance to be struck. On the one hand, adopting local customs will help you to communicate better with others and keep them comfortable, but there is an important distinction between doing something that is uncomfortable because it is new and forcing yourself to do something that is against your personal code. Recognizing the difference and honoring your personal beliefs when necessary requires both courage and self-awareness. But when it does not disturb your personal ethics or beliefs, pushing yourself get out of your comfort zone and try new things will allow you to connect more deeply with others and benefit you both personally and professionally.

As you speak and interact with people from different cultures, you may notice habits of speaking that are strange to you based on your own cultural context. For example, in American English it is common to ask, “How are you?” as a form of hello, without expecting or waiting for an answer. This can be considered as a “ritual question,” where the literal meaning of the question is not the one intended. To those who have not encountered this particular ritual question before, it may seem rude to ask a question without wanting an answer. Alternatively, the question may seem invasive or overly familiar to other people. However, it is simply a ritualized way of saying “hello,” and many cultures have these types of ritual greetings and questions. In China, “Have you eaten?” is used in a similar way, as is “Where are you going?” in the Philippines.

When you encounter these kinds of statements for the first time, it may seem odd, but try to reserve judgment. Typically, these types of questions are not meant
to be taken literally, and attempting to interpret these statements through our own cultural filters can result in erroneous translations of the gesture’s original intent. In these cases, it is useful to stop and ask the meaning of the question and what sort of response, if any, is customary.

If someone you meet behaves in a way that strikes you as odd, especially in a professional or networking context, there are several possible explanations. It is possible that the person is being odd, even for their own cultural context. It is also possible that they have different culturally acceptable ways of doing things than you do. (It could be both.) Furthermore, scientists and engineers are often not average representatives of their own cultures. Either let the odd behavior pass or ask questions to understand it, so long as the questions do not cause discomfort.

Beware the tendency to call things that are unfamiliar “weird” or “strange.” Simply because something is different doesn’t mean it is wrong or bad. For many things, there is no one right way to do it. Ours is not the only way, so calling others’ ways “weird” sounds derogatory and betrays a lack of familiarity with the other person’s culture. Keep an open mind, ask questions, and try to understand the reason for the person’s behavior.

6.3.1 Taboos

Taboos are topics of discussion or behaviors that are prohibited by social custom. Every culture has taboos; some are nearly universal, but many are not. This variation in taboos makes interacting in our global culture more complicated, as there is no fixed set of universal rules for what you should not talk about.

Taboo subjects tend to have strong emotions attached to them, and they are usually a subject about which a person is unlikely to change their mind. Thus, if you begin to speak on a taboo subject, and you do so with someone who has an opposing opinion, you may end up in a heated argument with neither side willing to budge. Not a recipe for a pleasant or successful networking exchange. If you want to hear someone’s opinion on a taboo subject and are willing to ask questions and listen, you may avoid an argument, but if you broach a sensitive topic in an attempt to change someone’s opinion, you are more likely to create an argument. Thus, it is best to avoid taboo topics with people you do not know well.

Part of the reason to avoid taboos and cursing during a conversation is as a demonstration of your good judgment. You may be speaking with someone who would not be offended by discussing these types of things, but by avoiding taboo topics under professional circumstances, you are demonstrating your restraint and good judgment. Even if you don’t offend them, bringing up a taboo subject may give your conversational partner the impression that you do not know how to change your comportment to match your surroundings.

Topics that are commonly considered taboo include money, sex, politics, religion, questions about family or marital status, and commenting on a person’s physique. However, there are more taboos beyond this set, and in some places, not all of these will be considered taboo. When first meeting people or learning about a new culture, it is best to err on the side of caution. There are many interesting and professionally relevant things that you can discuss, and questions
you can ask, that are not taboo, so there is rarely a good reason to bring up a potentially taboo subject. As you get to know someone better, you can broaden your topics of conversation to include taboo subjects, but that should be done with caution, if at all, and with the comfort of your conversational partner at the fore.

6.3.2 A brief note on American culture

The presence of this section is not intended to imply, in any way, the primacy or importance of American culture. American culture is simply the home culture of the author, who has spent time living and traveling in cultures outside of the United States, giving her a unique perspective on it. The purpose of this subsection is to explain or demystify some aspects of American behavior for a non-American audience. Of course, people from any given culture vary wildly, Americans included, so “your mileage may vary.” These are intended to be useful generalizations, but they won’t apply uniformly to every American you meet.

As a general rule, Americans tend to place a high premium on individuality and audacity, or the willingness to step outside of their comfort zones.\(^\text{24}\) This may be speaking to your boss’s boss, asking the question that everyone is afraid to ask, or “telling it like it is.” Being audacious means taking some level of risk, and those who are willing to set aside their fears of rejection and make a bold move are considered to be brave, often leading to rewards, though not always (otherwise it wouldn’t be a risk). Americans also tend to value independence.\(^\text{25}\) They may imagine that they can “make it on their own,” an attitude that can make it difficult for them to reach out when in need.

Participation is also something that the American school system values, and students can be penalized for not speaking and offering their opinions in the classroom.\(^\text{26}\) This can make things challenging and difficult for introverted students or foreign students from less outspoken cultures, who would rather not speak in front of the group. This relates to the idealization of extraversion that is common in many Western countries, as discussed in Chapter 3.

6.4 Women, STEM, and Networking

Historically, women have been unwelcome in STEM fields and higher education,\(^\text{27-29}\) and though numbers vary from country to country, women are consistently underrepresented in STEM fields worldwide.\(^\text{30}\) While much has changed, many women today are regularly confronted with the attitude that STEM fields are the realm of men. This attitude is less explicit today than it used to be (in many places), but women still face bias, both conscious and subconscious, that makes it hard for them to advance their careers, receive pay equal to their male peers, and have their work and accomplishments recognized.\(^\text{31}\) Negative subconscious bias against women is so culturally ingrained that both men and women are responsible for discriminating against women.\(^\text{32}\)

With that in mind, regardless of your gender, pay attention to the kinds of assumptions you make about women. It is possible to consciously (rationally) welcome women in STEM fields and make subconscious (irrational) assumptions
that are not welcoming. For example, have you ever met a woman at a professional networking event and assumed that she must be either an administrator or the spouse of a scientist or engineer at the event? While it might not be intentional, making a comment to that effect or saying, “You don’t look like a scientist/engineer/etc.” is unwelcoming, because it implies that women do not belong in those roles.

Also, make a point to examine the assumptions that you make about women and their relationships. Inquiries about a person’s relationship status, whether they are male or female, are best avoided, because they can bring up painful issues (what if the person is recently divorced?) or feel invasive (what motivates your interest in their availability?). If you know that a woman is married, do not automatically assume that she changed her name to that of her spouse. If she has earned a doctorate, married, and kept her name, but you address her as Mrs. Smith instead of Dr. Singh, the implication is that her role is only relevant with respect to her spouse, not due to her work and merits. She may have chosen to change her name, in which case she should be addressed as Dr. Smith, and doing so is honoring her choice. A longer discussion on how to address others can be found in Section 5.3.

As to the subject of children, again, avoid assumptions. While you want to do this regardless of the gender of the person with whom you are speaking, women are often subjected to assumptions about children and caregiving. There are many subjects to discuss that are professionally relevant that have nothing to do with a woman’s reproductive choices, so leave it up to her if she wants to discuss it. Just like relationship questions, reproductive questions can bring up strong emotions or feel invasive. Some people have physical or economic reasons preventing them from having children, some may have lost a spouse or a child, and some people don’t want children, so it is important to remember that reproduction is not a foregone conclusion. If a person, regardless of their gender, wishes to talk about their children, let them bring the subject up; do not force it upon them.

Numerous studies show that women are interrupted more frequently than men.\textsuperscript{33,34} Sometimes interrupting is necessary, but it is the verbal equivalent of shoving; it should be avoided unless there is a problem, because being interrupted is a frustrating experience, regardless of gender. Make a point to raise your awareness of how often and when you interrupt, and be especially attentive when interacting with women. Interrupting is about power and social dominance\textsuperscript{35} more than it is an innately gendered issue, and the fact that women are interrupted more than men is largely due to cultural power imbalances.

Women are also often the recipients of unwanted sexual attention from men. If you are a man, as a rule, avoid making advances of a sexual nature towards women in professional networking situations. Stick to the topic at hand: career and research. Women often face discrimination and struggle to be taken seriously as scientists and engineers,\textsuperscript{36,37} and if you flirt or make overtures to a woman in a professional environment, it does her disservice as a scientist or engineer.

As a woman, should you be the recipient of unwanted interest, it can be difficult to choose how to respond in a professional setting. In the interest of our professional network, people tend to avoid confrontation or making a scene, but
you do not have to tolerate bad behavior. When faced with actions that make you uncomfortable, excuse yourself and leave. If you choose to address the behavior, do so in a way that maintains your safety. You can be direct and say, “No, thank you,” or you can choose to be subtle. Behaviors such as reducing the amount of eye contact you make, turning away slightly, or increasing the physical distance are all subtle cues to indicate disinterest, which, ideally, your conversational partner will have the empathy to notice. You can also invite a third or fourth person into the conversation as a deterrent, and heavy use of formal titles such as “Sir,” “Doctor,” or “Professor” instead of a first name will help to clarify a lack of interest. See Section 5.8 for more strategies on dealing with bad behavior.

Unfortunately, sexual harassment of women in STEM fields is a pervasive and recurring problem, but as of this writing, there are a number of efforts to address it. Codes of conduct have become common at many technical conferences, so do not be afraid to contact conference staff, get help, and report any individual who is making you uncomfortable. Organizers can and will intervene, even to the point of ejecting or banning transgressing attendees from events. If you are not a woman, it is important to recognize that part of the problem is the frequency with which women face bias and unwelcome behavior and that the daily burden of it can be discouraging. Do your best to be self-aware, empathetic, and examine your assumptions in order to be kind, conscious, and welcoming.

Being supportive of your female colleagues (regardless of your gender) is not just the kind thing to do; women are an important part of diversity. A study of S&P firms (the top 500 largest, publicly traded companies in the United States) showed that firms with women in top managerial positions are more successful. And in general, studies show that gender diversity is good for fostering creativity. However, inclusivity in STEM fields remains a struggle the world over, with many cultural and institutional biases against women making it hard to achieve gender equity. But a culture is the sum of many individuals, and if we use our self-awareness to recognize sexism in ourselves, subconscious or otherwise, regardless of our own gender, we can work towards eradicating these attitudes and achieving equity.

### 6.5 The Negative Effects of Stereotypes

Stereotypes are widely held, oversimplified images or ideas of a type of person or thing. They are useful in that they allow us to respond quickly by categorizing something or someone that we encounter. Our ability to “thin slice” and rapidly assess someone without conscious thought relies on stereotypes. Again, this is an adaptive behavior for life-and-death situations where the speed of your response will determine your survival. However, in a modern professional and networking context where life is not on the line, stereotypes—especially ones that we hold subconsciously—cause us to ignore individual differences and make mistaken assumptions about others, leading to miscommunications, discomfort, and possibly unfair treatment.

Think about the following stereotypes that you may have encountered:
● Germans have no sense of humor.
● Women and Italians are too emotional.
● Asians are quiet and good at math.
● Millennials are entitled and unfocused.
● Middle-aged people are technologically inept.
● Overweight people are lazy.
● Americans are fat and loud.

These are examples of stereotypes propagated through culture and media, and even if we do not believe them consciously, they can influence how we treat others. Stereotypes, even when they are positive, box people in and fail to acknowledge a person’s individuality. When you stereotype someone, you treat them like a demographic, not a person, which is unkind. This applies whether or not the person fits the stereotype. If they do fit the stereotype, you are effectively telling them that they are not special; personal choice has nothing to with it because that’s “just how they are.” If they do not match the stereotype, then you imply that they are abnormal or “doing it wrong.” Worse, stereotyping is often subconscious, and therefore irrational, which requires self-awareness and analysis to recognize it.

After repeated exposure to a particular stereotype, confirmation bias can start to take effect, where we only notice experiences that confirm our existing beliefs and ignore contradictory experiences.\textsuperscript{42,43} Confirmation bias is something that the scientific method helps us to avoid when we are doing experiments, but it is harder to notice and eradicate when interacting with people. As discussed in Chapter 3, self-awareness is key to becoming conscious of our stereotypes and biases so that we can avoid reinforcing them—an important step in embracing diversity and welcoming people who have historically been marginalized.

Another negative impact that stereotypes have is how they can shape people’s expectations of others. People tend to react negatively when a person does not behave in a manner that fits their expectations, and expectations are often based on stereotypes. This effect is called “cognitive dissonance,” meaning that the mental conflict created by reality not meeting expectation results in a negative emotional response and a rejection of the conflicting information, or the backfire effect.\textsuperscript{44} For example, when a man is assertive, he is considered confident, but when a woman is assertive, she may be considered unlikeable or pushy. The man who behaves to stereotype by being assertive is often rewarded, and the woman who does not behave to stereotype (because being assertive is stereotyped as a male trait) is often punished.\textsuperscript{45,46} This punishment for not conforming to stereotype is typically subtle and social, but the punishment enforces stereotypical behavior in the person who is “misbehaving.”\textsuperscript{47}

“Stereotype threat” is another issue, one that affects individuals who identify with the stereotyped group. It is the fear of performing in accordance with a negative stereotype about oneself, i.e., a fear of proving the stereotype correct.\textsuperscript{48} The anxiety created by stereotype threat has been shown to reduce performance, creating a sort of self-fulfilling prophecy.\textsuperscript{49}
Dismantling stereotypes will help to improve equity in many arenas. It is especially important for dominant-group members to examine how stereotypes about members of non-dominant groups affect their behavior. The dominant group can be defined as one that has historically been overrepresented in positions of power. Group dominance is highly context dependent, differing from country to country, and even company to company, and it can be based on almost any characteristic, including gender, race, body type (height or weight), country of origin, or whatever else might constitute a majority in a particular environment. Because the dominant group by definition has more power, negative attitudes that the dominant group holds about non-dominant groups have an especially negative impact on members of the non-dominant group.

On the grand scale, stereotyping leads to inequity. On the individual scale, it prevents you from knowing and adapting to your audience. And adapting is one of the most important things you can do to be better understood and improve your networking.

6.6 Diversity and Sensitivity

Whether you are presenting to a large group or speaking one on one, adapting to your audience is key to effective communication, as discussed in Chapter 1. This means watching their reactions and adjusting your content, way of speaking, physical movements, and proximity in a way that allows you to be better understood. The more diverse your audience is, the more you need to pay attention and adapt in order to effectively convey your message and connect.

In terms of networking, there are two ways to consider diversity. First, as a scientist or engineer in our global community, you can expect to interact with a variety of people from different backgrounds, so be sensitive to how these differences inform your interactions. Second, a diverse network of connections is valuable, as it makes your network stronger and more useful for you and your connections. The stronger your network is, the greater your ability to help others.

The following subsections provide suggestions to consider when meeting and conversing with people of varying backgrounds. Beyond these suggestions, additional research and advance preparation can make interactions less daunting.

6.6.1 Appearance

When first meeting people, appearance plays a special role. How you present yourself gives the other person a lot of information about you before you even have a chance to say your name. But there are things about your appearance that you can control and other things that you cannot. Your height, skin tone, and to some extent your weight and your accent, are outside of your control. This applies to everyone, so avoid making assumptions about someone based on immutable aspects of their appearance.

Just like stereotyping, it is human nature to make snap judgements of other people based on their appearance. For example, it has been shown that people have a subconscious bias about height, with male CEOs of companies being...
disproportionately tall, despite the fact that there is no empirical evidence that tall people make better leaders. Likewise, people tend to associate sloth or a lack of moral fiber with people who are overweight, which is an unfair and unsubstantiated. Avoiding these sorts of erroneous assumptions will help you avoid social gaffes, treat other people more fairly, and allow you to get to know people better than you would have otherwise.

As a topic of conversation, only comment positively on aspects of the person’s appearance that they can control. Things such as height, beauty, skin color, and weight are not things that a person chose for themselves, and if it is not something they can easily change, avoid commenting on it. Things that they can change relatively quickly, such as their attire, haircut, or accessories, are acceptable things to compliment, but do not criticize someone’s appearance. If you are a man, complimenting a woman on her appearance beyond, “You look nice,” or that you like a particular accessory she is wearing, is generally inadvisable, as women regularly get unwanted attention for their appearance, and you do not want to add to it and make them uncomfortable.

Even aspects of appearance that are mutable are somewhat fraught, as money and background play a role. Wealth, socioeconomic status, culture, and gender all play into what are considered acceptable or professional attire, accessories, and haircuts. Unfortunately, racism and sexism can result in different standards of appearance for different people, making it important that we scrutinize our subconscious assumptions about appearance. Wealth and socioeconomic status are discussed later in Subsection 6.6.9, but for now, remember that what a person wears in terms of flash, trends, and brand names, is far less important than things like their clothing being clean and whether they are well groomed. Grooming is an important aspect of networking, and it was discussed in Section 4.5 in the context of in-person conversation.

Finally, don’t make assumptions about where someone is from based on their appearance. Simply because someone may look Chinese to you doesn’t mean they speak Chinese or are from China; they could have grown up in New Jersey or Mexico City! So if you ask where someone is from and are surprised, do not follow up by asking where they are “really from.” This question is based on erroneous expectations about what a person should look like if they are from a certain place. Asking it implies that they don’t belong or fit into the place they call home, and it sounds as though you are questioning their truthfulness.

6.6.2 Age

There is a lot to be learned from people younger and older than ourselves, but generational and age differences can make it feel difficult to relate across the gap. Generation-based behaviors are a common thing to poke fun at but should be avoided. “Those entitled millennials” or the tired idiom “kids these days” will alienate a younger conversational partner. This principle also means that younger people should not make derisive statements about older generations, such as mocking them for being unable to adopt new technologies or considering older people as less relevant.
There is a lot to be learned on both sides of an age gap. A younger person may give you a fresh perspective on something that is already familiar to you, and an older person will probably have a much broader set of life and career experiences to share with you. If you are uncertain what to talk about, ask the person questions about their experiences of things you both may have done, such as graduate school and work. Discussing the ways that things that you both experienced have evolved over time can be interesting and fruitful, as you will find some similarities as well. Of course, some people would prefer to avoid the topic of age altogether, in which case you can focus on other subjects.

If you are the older person in the conversation, remember what it was like to be the younger person’s age. Recognize that this young person has the potential to become the leadership of tomorrow, and they will remember if you were kind and helped them when they needed it the most. Taking time for people younger or less senior than you is a great way to help them at a point in their career when they are most needful. You never know what kinds of roles and responsibilities they will take on in the future, and how you might be able to shape or change that. Being a mentor can be very rewarding (see Section 7.4).

### 6.6.3 Religion

In many cases, it is not possible to identify a person’s religious preferences by looking at them. Some religions prescribe certain modes of attire or grooming, such as wearing a hijab or yarmulke, but many do not have such identifiers; some followers don’t observe these attire prescriptions; and some people do not practice religion. Religion is considered a taboo discussion topic in polite conversation, because it tends to be very personal with strong emotional elements and the improbability of changing one’s views.

It is therefore generally best not to inquire about someone’s religion or make statements about religious groups to which you do not belong. Doing so risks discomfiting or offending your conversational partner. If they bring up the subject of their own religion and you feel comfortable talking about your beliefs, then it is probably okay to ask them further questions on the subject. Always be careful to ask questions, watch your assumptions, and avoid making generalizations.

If religion is an important part of your life or the life of someone who is a close connection, it can be good to discuss it to get to know them better, so long as you are trying to improve your mutual understanding, not for the purpose of changing the other person’s mind. Debating religion and religious views can lead to healthy and interesting conversation, but it falls far outside the professional networking context and should generally be avoided under such circumstances.

### 6.6.4 Politics

Political affiliation is another issue of diversity that is largely impossible to know based on someone’s appearance, unless they are holding a sign at a protest. Like religion, it tends to be very personal, emotional, and entrenched, and is therefore also a taboo conversation topic in many cultures. It is a good policy not to make
negative statements about political groups or affiliations, as you risk offending or discomfiting your conversational partner; even if the person agrees with you, it demonstrates questionable judgment.

If your conversational partner mentions their politics, they are signaling a willingness to discuss the subject. If you want to reciprocate in a respectful, calm fashion, focus on asking questions and understanding their perspective rather than engaging in debate. Overall, politics can be a thorny issue, and it is the safer course of action to avoid the subject entirely unless it is relevant to your business purpose.

6.6.5 Sexual orientation

Sexual orientation specifies the gender (or genders) to which a person is sexually attracted, including but not limited to heterosexual (opposite-sex attraction), homosexual (same-sex attraction), and bisexual (attraction to more than one gender). The majority of people are heterosexual, though the survey and reporting of non-heterosexual identity has its challenges due to social pressure. The acronym LGBTQ (Lesbian, Gay, Bisexual, Transgender, and Queer), is used to refer to the community of people who are not heterosexual and cisgender (more on gender and cisgender in the next section). Sometimes the acronym is written as LGBTQ+ or LGBTQIA to include other demographics, such as people who are intersex or asexual, people who do not identify with either male or female gender, and more.

Sexual orientation is an especially tricky subject, because in our global community there are many places where it is unsafe to be openly part of the LGBTQ community; some have laws against homosexuality. And like politics and religion, it is not something that you can identify visually.

In a professional setting, sexual orientation will rarely be discussed, because the subject of sex is taboo. However, it is important to not assume that everyone you meet is heterosexual and to refrain from making disparaging commentary or using offensive slang regarding the LGBTQ community. Disparaging any group or demographic is unkind, and you risk offending or discomfiting your conversational partner whether or not they are a member of that group, and it exhibits poor judgment.

As with politics and religion, do not begin asking questions about a person’s sexual orientation unless they first volunteer information on the subject. If they do bring it up and you choose to ask questions, watch your assumptions and keep your tone positive, focusing on understanding them better. And if they change the subject, accept that and move on even if you did not get the answers you wanted.

6.6.6 Gender

When the subject of gender arises, many people generally think of men and women. This is called the “gender binary;” however, there are many aspects to gender that fall outside the traditional binary. Modern biology has shown that gender is more of a spectrum than a binary, with many variations.
An important concept relating to gender is that of *cisgender* and *transgender*. Most people are cisgender, which means that the person’s gender identity is matched with the sex they were assigned at birth. People who are transgender have a gender identity that does not match the sex they were assigned at birth.59 A trans woman is a person who identifies as a woman but whose assigned sex is male, whereas a trans man is a person who identifies as a man but whose assigned sex is female. And beyond cis and trans, there are people who are intersex, meaning that their bodies exhibit aspects of both male and females sexes; people who are gender fluid, i.e., their gender identity may be dynamic; and people who are non-binary or genderqueer, who do not identify as either a man or a woman.

If you are cisgender and heterosexual, you are in the majority and may not feel a lot of motivation to understand the complexities of gender outside the binary. This relates to the discussion on neurological pathways and habits in Section 6.1, about how learning and adapting to new information takes effort and processing power. However, being misgendered (having their gender mis-identified by others) is a common experience for trans people and those with non-binary gender identities, and it can be very disheartening. As discussed in Chapter 4, your job as a good conversationalist is to keep your partner comfortable, and to do that you must use the pronouns (he/him, she/her, they/them, etc.) that they want or ask you to use. If you are unsure what gender a person is, do not ask, “Are you a man or a woman?” or worse, “What are you?” (human, the answer to that question is always human, and perhaps affronted), but do ask, “What pronouns do you prefer?”

While things such as accent and skin tone are aspects of a person’s appearance that they cannot control, much of gender presentation is a matter of choice (within limits related to wealth and socioeconomic status; see Subsection 6.6.9). The way a person styles their hair and the clothes they wear, as well as any make-up or accessories (or lack thereof), can indicate gender.

As always, strive to treat a person as an individual and not a demographic, so if someone has non-traditional gender presentation, ask them about their preferred pronouns. If you are in a group, ask for everyone’s preferences to avoid singling anyone out. If it is not possible to inquire about pronoun preferences, use the pronoun that seems consistent with their gender presentation or use the non-gendered, singular pronouns they/them. Putting pronouns on nametags can make this easier and is valuable for cis people as well, because it makes it more comfortable for trans and non-binary people to do so.

For more information on gender, gender identity, and appropriate transgender terminology, refer to the Planned Parenthood article, “Gender and Gender Identity” and the GLAAD Media reference guide on transgender terms.61

As a final consideration for gender, avoid stereotyping members of a different gender. Don’t assume that they are interested in certain topics that are “male” or “female” simply because they are a man or a woman, or that they would not be interested in things that you do not associate with their gender. Historically, STEM fields were considered the realm of men, but not all men are interested in a career in STEM, and many women are. The more assumptions you make, the fewer questions you will ask and the less you will learn about your conversational partner.
6.6.7 Disabilities

As you network, you will encounter people who have disabilities such as blindness, reduced hearing, and physical or neurological differences. There is, and has been, a lot of stigma and confusion concerning people with disabilities, and discrimination against such people is referred to as ableism. This prejudice can cause people to avoid interacting with those with disabilities and thus miss engaging exchanges and fruitful networking connections. When interacting with a person with a disability, do not use the word “normal” to refer to people who do not have disabilities or imply that people with disabilities should be pitied. Because a disability is a part of someone that they cannot change, much like the immutable aspects of a person’s appearance, it is best not to make it a subject of conversation.

As with any difference, there are ways to adapt your communication style to make conversation easier and more enjoyable for both of you. If you are speaking with a blind person, you will not receive any information via eye contact, so pay more attention to body language and tone of voice. Imagine that you are talking on a phone and adapt your behavior accordingly.

When speaking with a person who is hard of hearing, the techniques described in Section 5.7 regarding non-native speakers can help. Face the person so that they can see your mouth and understand better if they can read lips. Looking at someone while you speak also increases the volume at which they hear you versus when you look away. Do not mumble; adjust your volume; and maintain eye contact.

If someone is a wheelchair user and you expect to converse with them for more than a few moments, sit down so that they do not have to look up at you. Treat their chair as an extension of their personal space, and do not invade their space by touching or moving it. Don’t assume that people who use a wheelchair are not intelligent or interesting people, or that they have an intellectual disability.

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**Author Anecdote**

A friend of mine injured her foot on the way to a conference and spent the event in a wheelchair with her foot in a cast. She noticed that many people spoke to her more loudly and slowly than before. It surprised her to discover that many people assumed that she couldn’t understand them because she was using a wheelchair. This is an illustration of the subconscious stereotypes many hold.

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If you are interacting with someone who has a speech impediment, such as a stutter, it may become more noticeable if they are nervous, e.g., during social events and in-person networking. Don’t mention it or complete their sentences.

You may also encounter people who are neurodivergent, including but not limited to Attention Deficit Hyperactivity Disorder (ADHD) and autism. These conditions can make it more challenging to interact or converse in certain social settings. If someone you meet avoids eye contact or fidgets, remember that it may not have to do with you but with their neurological state. Be patient and ask questions if you are not sure what is happening. People with autism often have trouble noticing nonverbal social cues, so questions or clarifying statements help.
This is a brief and simplified overview of a complex topic, and you are encouraged to educate yourself further on the subject. Some suggested reading on disabilities can be found in the article, “The best books on disability recommended by Tom Shakespeare.”

Regardless of your conversational partner’s type of disability, use your empathy: note if the person seems uncomfortable and adapt your behavior to make them more comfortable. As with all forms of diversity, carefully examine yourself and your behavior, and avoid subconscious actions or assumptions that may be unproductive.

6.6.8 Industry, academia, and government

This is a difference that is more superficial, because the person chose where to apply for their job, but it is an important aspect to notice in a professional context. Someone who works for a company that sells a product is going to have different pressures and goals than someone who is a professor at a university where publishing journal articles and writing grants is the priority. Having someone be part of your network means knowing them professionally and understanding their goals, accomplishments, and motivations; the sector in which they work has a significant impact on that.

Because employment is largely a conscious choice, it makes for a good topic for conversations at professional networking events. Asking people what they like about their job and discovering their concerns and projects will generally be welcome.

6.6.9 Wealth and socioeconomic status

A person’s wealth and socioeconomic status can have a large effect on how they present and express themselves. There are ways of speaking and dressing that we associate with different status levels, and it is important to be aware of these associations. It is unfair and unkind to judge people who we perceive to be from backgrounds of lesser means or a lower educational level.

Many of these ideas may be subconscious and require self-examination to note. For example, a strong southern United States accent is often stereotyped as belonging to people with lower income or lesser intelligence, which is an unkind and unsubstantiated assumption that judges a person by the sound of their words as opposed to their content. However, people's behavior can be subconsciously influenced by such negative stereotypes, which is why self-awareness is important for recognizing such biases.

People who are wealthier also have more disposable income to spend on their appearance, whereas people of lesser means may not be able to update their wardrobes, haircuts, or accessories as frequently, or present themselves as fashionably. This puts wealthier people at an advantage when making first impressions. While it is human instinct to judge appearances, do your best to evaluate a person based on substance rather than how trendy or expensive their
clothes appear, because wealth is not equitably distributed, and many interesting and incredibly talented people come from backgrounds of lesser means.

This is only a brief sampling of some significant topics relating to diversity; it is by no means perfect or all inclusive. The goal of these sections is to help you consider ways in which people may differ from you, and how you can adapt your approach to interacting with them to enable better communication and more effective, sustainable networking. Ideally, this subject should be an ongoing topic of learning and growth.

6.7 The Culture of Science and Engineering

No matter a person’s walk of life or history, as human beings we have far more in common than not. Don’t shy away from getting to know people who are different than you. They can teach you a lot, and as scientists and engineers, we have a large repository of knowledge and shared life experiences to discuss. A conversation is as much about finding common ground as it is about learning, and so speaking with any and everyone, no matter their appearance, can be incredibly rewarding.

When you are networking professionally with other scientists and engineers, they will be able to relate to you on subjects that other people cannot. This includes topics such as your area of study, the nature of laboratory work, modeling and analysis, data collection, publications and technical presentations, and likely a desire to explore and understand the nature of the universe. It gives you a huge pool of potential conversational subjects and ways to connect and learn.

As humans, and as scientists and engineers, our variations and permutations make life more interesting and enable us to solve bigger problems than we could if we were a homogenous group. Diversity is strength—it makes things interesting, and it helps us to grow.

Exercises

(1) Consider your existing network. In what ways is it diverse? In what ways does it lack diversity? Make a list based on the examples given above. Analyze the notes you just made to identify a pattern of certain types of people who are not represented in your network. Is it because there are not many of those types of people in your company or school? Or are those people present, but you haven't connected with any of them? If so, use your self-awareness and ask yourself why.

(2) Look for opportunities to diversify your network and take small actions to do so. Find a local networking or social event to attend, join a LinkedIn or Facebook group, or find a volunteering opportunity where you can meet people who are different from you or who are not currently well represented in your network.
Imagine a scientist or engineer who is very different than you, in one or many of the ways discussed above. What might you also have in common? What are good topics of conversation, or questions you might ask this person, to get to know them better? Write them down. This exercise will help you have appropriate things to say when you meet people who are different from you.

References


51. Willis, J. and A. Todorov, “First impressions: Making up your mind after a 100-ms exposure to a face,” *Psychological Science* 17(7) (2006).


