Chapter 3
Self-Awareness, Social Anxiety, and Communication

“Know thyself.”

~Delphic maxim,
Temple of Apollo at Delphi, 7th century BCE

3.1 Knowing the Terrain

Communication is an essential part of networking and science, and how we communicate is shaped by our own internal landscapes. In this landscape, you will find personal characteristics, such as whether you are more introverted or extraverted, your levels of self-awareness and empathy, and the way you interpret information that you receive from others. You may also encounter fears and social anxieties, which can make interacting with other people challenging or even unpleasant. Knowing this terrain, and being able to navigate it effectively, allows you to improve your communication skills and develop an effective, sustainable networking strategy that suits your personality and your goals.

Being able to understand and navigate this internal landscape is about self-awareness, which is the ability to recognize our emotions and understand who we are. It is an essential skill for being able to empathize with others. Empathy is an important skill, because it allows you to adapt to your audience and communicate effectively.¹ There is a positive correlation between empathy and self-awareness,²,³ because the ability to recognize emotions in others is dependent upon our ability to recognize our own emotions.

Self-awareness also allows us to approach and mitigate common issues such as social anxiety. One study estimated that globally 275 million people suffer from anxiety disorders, representing 2.5–6.5% of a country’s population.⁴ Another study found that 13.7% of the population in Ireland experiences a social anxiety disorder at some point in their lives,⁵ and the number is 12.1% in the United States.⁶

When we are self-aware, we are also better able to optimize our communication and networking strategy based on the knowledge of who we are. The best strategy for an introvert is necessarily going to be different than for an extravert. Extraversion may be a trait that is often praised in many Western societies,⁷,⁸ but it is important not to pathologize its counterpart, introversion.
In fact, research shows that groups with a mix of introverts and extraverts on teams and in leadership perform better than a homogenous group of one type or the other (more on diversity of all kinds in Chapter 6).\textsuperscript{9,10} Both introverts and extraverts can be excellent networkers, but their respective approaches to communication and networking require different strategies, so knowing yourself in this area is important.

But the subject of communication (and its component skills) is typically not included in STEM education programs.\textsuperscript{11} As scientists and engineers, we are expected to pick those things up as we go (by osmosis, perhaps), leaving many lost or frustrated as to how to improve. Many of us end up neglecting or avoiding the topic of communication all together, or the Dunning–Kruger effect convinces us that we don’t need any improvement. But poor communication can hinder our relationships, careers, and even the science that we do.

Fortunately, communication and self-awareness are trainable abilities, and you can take matters into your own hands. This chapter will give you an overview of these subjects, including anxiety, introversion and extraversion, empathy, and how they relate to your communication style and networking strategy. The goal is to help you to find a way to express yourself more effectively, to have a better understanding of yourself and by extension others, and to find ways to address your social fears or adapt your approach according to your personality and preferences.

3.2 Fear, Rejection, and Anxiety

Meeting new people and attempting to engage strangers in conversation is an exercise in vulnerability, because you are opening yourself up for rejection, but it’s also something you will need to do in networking. Rejection is unpleasant; studies have shown that the same part of the brain is activated for both physical pain and verbal rejection.\textsuperscript{12,13} Pain and fear of rejection are useful feedback mechanisms that have kept human beings alive in dangerous situations,\textsuperscript{14} but they can backfire in certain modern circumstances, such as in-person networking events, making us want to run for our lives and find somewhere to hide when no life-threatening circumstance exists.

There is also the fear of saying or doing something wrong, looking stupid, and exposing ourselves to ridicule. This is a different type of fear of rejection, with a more dramatic outcome than being told no. Human beings are highly social animals, and prehistorically it was our ability to collaborate that allowed us to protect ourselves from large predators.\textsuperscript{15} The fear of rejection is so powerful, because for our ancestors, it could mean death if they were ostracized.\textsuperscript{16} This is why a party or reception with strangers, meeting new people, and public speaking can be so intimidating. When you attend a networking or conference event and see people chatting naturally with others, it is probably not as easy as it looks and there are many others in the room who feel the same. In fact, to use the American population as an example, research shows that anywhere between 40\% and 60\% are shy, and that the number is increasing over time.\textsuperscript{17,18}
Hopefully, knowing that you are not alone in your fear of rejection (and why) gives you solace, but there are additional things that you can do to ease your social anxieties. Recognize your fear, but do not chastise yourself for experiencing it. While you may never completely eliminate your fear, you can learn to mitigate it by improving your social skills and getting practice at meeting and speaking with others. Like any skill, networking, communication, and meeting new people take study and practice. And social anxiety is something that can be reduced through training.19,20

One of the ways you can begin training yourself is through observation. As a scientist or engineer you already have a powerful set of observation and analysis skills that you can bring to bear. First, you can begin to observe people who are successful in ways that you wish to be, and then imitate them or seek their aid. You can also observe the reactions of people you are interacting with and make changes to your behavior. Keeping a lab notebook is probably already a habit that you possess, and you can begin recording your observations to help you remember and make plans to practice new techniques. Journaling, including gratitude and visual journaling, is also a well-known technique for processing and relieving anxiety.21–23

What if, even after acknowledging that others share your fears and finding people to observe and imitate, you still struggle with anxiety? You can pursue things like formalized public speaking practice, such as through Toastmasters International,24 get involved in a professional organization or volunteering opportunities where you are required to interact with others, or see a therapist. Studies show a high rate of success for counseling and psychotherapy to alleviate anxiety that can inhibit socializing.25,26 Acting and improvisation classes can be very helpful in overcoming the sort of social anxiety that makes it difficult to start conversations and attend social events. The American idiom “fake it ‘til you make it” is about acting the way you wish you were and, with practice and repetition, ultimately learning to embrace and become the desired image that you are presenting.

One of the most anxiety-inducing networking experiences most people face is a large room of people, mostly strangers, with whom you are expected to mingle. First, it is important to acknowledge that this is just one of many types of networking events, and that you do not have to attend such events in order to network or to be a good networker. However, when chosen strategically, these types of events can offer a lot of great opportunities, and so it’s not a bad idea to have a plan for how to handle your anxiety and find a way to participate without excessive stress.

One such strategy for dealing with the “scary room full of strangers” scenario is to show up close to the start of the event, when there won’t be many people there yet. When you arrive, walk into the room and don’t hang out in the doorway. You want to appear approachable and easy to talk to; hesitating in the entrance works against that. So even if you feel like running away and are hesitant to enter, just walk straight in. Then make a point to introduce yourself to the organizer, see if there’s anything you can do to help, and familiarize yourself with the space.
That way, by the time most others arrive, you are already comfortable and more prepared to interact. It can be tempting and easy to stay within the circle of people we know, but this does not expand or build a diverse network. Staying with people we already know is comfortable because we avoid rejection, but in this way, the fear of rejection can stop us from putting ourselves out there. More on strategies for formal networking events will be discussed in Chapter 9.

Another anxiety you may face if you are an early career professional (ECP) is the fear that more senior people may not be interested in talking to you. However, many senior-level scientists and executives recognize that the ECPs of today are the leaders of tomorrow, and they will be interested in fostering and interacting with you. They may even be interested in mentoring you. There are some people who fall prey to snobbery and will not give you their time because you are junior, but do not take this short-sighted behavior personally; it is their failing, not yours.

When dealing with people who are senior, it is important to remember that, by merit of their advanced positions, they tend to be very busy with full agendas. A polite person, who is not on their way to an appointment or late getting somewhere, will make a few minutes of time for you. But it is important for you to remain cognizant of treating their time with respect. Do introduce yourself to senior scientists and executives, but do not monopolize their time or be offended if, after a few minutes, they excuse themselves. This applies to anyone, but doubly so to executives and their equivalents. If you have a positive interaction with someone, even if it is brief, make sure to get their contact information and follow up with them to cement their memory of you. High-level individuals meet a lot of people, so you need to make an extra effort to ensure that they remember you by following up promptly.

Ultimately, feeling comfortable with the idea of rejection will help you with social anxiety, both personal and professional. This is a valuable skill that will aid you in most facets of life. This is not to say that you should stop caring entirely what people think or that you should not care if you are rejected. What it means is becoming comfortable enough with the idea of rejection that you do not avoid the possibility of rejection purely out of fear. Much of science is a process of repeated failure until something goes right, and in both science and your career, negative results can provide useful information about how to refine your approach going forward.

To become more comfortable with rejection, you can practice something called “rejection therapy.” This a concept created by entrepreneur Jason Comely and subsequently purchased by TED speaker Jia Jiang. It is a formalized methodology (game) for becoming comfortable with rejection. The goal of rejection therapy is to intentionally seek out small, inconsequential rejections, such as making a request to a stranger that is non-offensive but likely to be rejected, e.g., asking if they have gum or a lighter, or if they could give you a ride to the store. One seeks these opportunities to deliberately acquire a rejection, and by making rejection a desirable result, it makes rejection a more manageable and a less frightening thing to receive.
Whatever strategies you elect to deal with your social anxieties, something you need to make sure to do is to practice. Practice is one of the best ways to get better at interacting, calming your anxiety, and reducing your fear of rejection. If the problem seems insurmountable and you experience significant physical symptoms of panic, you may want to consult a counselor or physician. Blushing, sweating, trembling, avoidance of socializing due to fear, and dwelling on perceived mistakes are known symptoms of Social Anxiety Disorder (SAD), and if that seems familiar, doing more research and seeking outside assistance may help.

Self-care after social interaction can also be very important, especially when you have social anxiety. A component of social anxiety is ruminating on actual or perceived social mistakes after they have taken place. The Mayo Clinic describes this behavior as “spending time after a social situation analyzing your performance and identifying flaws in your interactions.” If you do this, finding ways to calm yourself by performing activities you find soothing, such as journaling, meditation, exercise, or drinking tea, can help relieve your post-social anxieties. More on the topic of self-care is discussed in Chapter 9.

3.3 Introversion and Extraversion

Something that affects your style of networking, and the types of events and social engagements that you prefer, is whether you are an introvert or an extravert. Know that one is not better than the other; introversion and extraversion are merely terms that describe sets of personality traits that tend to be clustered. Introverts are generally considered to be quieter and more solitary, whereas extraverts are considered to be outgoing and gregarious. Another way of differentiating introversion and extraversion is to look at how the act of socializing impacts an individual. Under this definition, if an individual finds that social interaction uses up a lot of energy and they require downtime afterwards to recover, they are considered an introvert. Conversely, gaining energy from social interaction is considered to be a sign of extraversion.

There is even a new term, ambiversion, which describes a person who does not shy away from social interaction, nor do they find it especially taxing, but who still needs private time to recover and relax from large social events. An ambivert lies somewhere between an extravert and an introvert. Ultimately, the need to define the concept of ambiversion is an indicator that extraversion and introversion are not binary states, but that they exist in a continuum, with most people lying somewhere between the two extremes. You will likely find that you possess some characteristics that are considered extraverted and some that are considered introverted.

While the dynamic and charismatic personality has become popular and desired in many Western cultures, it is important not to devalue the qualities of introversion. Introversion is often also characterized by attention to detail and strong observation skills, characteristics that are highly valued in STEM fields and elsewhere. Many Eastern cultures do not have the same fascination with, nor do they prize, extraversion in the same way as some Western cultures. Neither extraversion or introversion is better than the other, and it is a mistake to
pathologize or consider introversion a deficiency. However, due to the highly social nature of many in-person networking events, introverts face some obstacles that extraverts do not, and therefore they especially benefit from having a goal-driven networking strategy.

**Author Anecdote**

By most measures, I am an extravert. I am outgoing and talkative, and rooms full of strangers don’t bother me. But I find social interaction exhausting, and I am prone to post-social bouts of anxiety and rumination over my perceived mistakes. In other words, I strongly exhibit characteristics of both extraversion and introversion, with a side of social anxiety. I don’t identify strongly with ambiversion, though I perhaps fit the definition. Many people, like me, will not fit tidily into a single box, and it is also not necessary to do so. These definitions are simply helpful nomenclature to help us understand these concepts and ourselves.

Regardless how you identify—extravert, introvert, or ambivert—you can be a talented networker without attempting to change your personality. Because introverts tend to avoid busy social situations, there is a misconception that they do not make good networkers. Many excellent networkers are introverts, possibly due to the more strategic approach that introverts tend to take to networking. Finding opportunities that are high impact, in order to get the greatest effect from their efforts, or focusing on one-on-one interaction are things that will come more easily to an introvert, who naturally has a more limited bandwidth for dealing with people and social situations. Introversion is not mutually exclusive with networking; it just requires a different strategy than extraversion.

If you are an introvert, conferences and public speaking may be things that you shy away from instinctively. Recognize that you don’t have to participate in those kinds of activities to network, though a strategy can make it easier to participate. When approaching large, “room of strangers” social situations or anything that can be generally over stimulating, a good strategy for introverts is to have a specific goal for that exact event. Do advance preparation and, if possible, decide who you want to meet, or simply give yourself a set number of people with whom you would like to connect. Setting a goal or goals of this kind is useful for non-introverts as well. Then when you have achieved your goal, you can allow yourself to leave if you find the situation taxing. These kinds of opportunities can be high impact for networking efforts, and they tend to be of short, fixed duration, so even though they may be daunting, you know when you can go home to recharge, having made a lot of new contacts.

If you are an introvert, it may also be a challenge to speak up and ask for what you want in your work environment, but this is something that you should make a point to do, both for the quality of your work and for your local networking strategy (more on this in Chapter 8). This means finding the best circumstance to do this. If you can’t bring yourself to speak up in meetings, make sure you get face time
with your boss. Part of networking, either at your company or a conference, is about sharing your work, the goals you have, and the obstacles you face. Introverts may be tempted to listen rather than speak or share, but remember that networking is about an equitable exchange of information. So if you cannot bring yourself to speak in a meeting, find a way to talk with your boss or coworkers in a setting where you feel comfortable so that you can share your accomplishments.

Extraverts may have the opposite issue in networking, where they may easily meet people and share information but not ask enough questions to receive information in return. This is an issue especially if an extravert is interacting with an introvert; the natural tendency of both will be for one to talk and the other to listen (more on this in Section 4.3). If you are an extravert, make a point to listen and ask questions as well as speak. Pay special attention to the balance of the conversation (whether it is in person or electronic), and if you notice that you are doing most of the information giving, throttle back and ask more questions so that the conversation is more equitable. Doing so takes self-awareness, which will be discussed in Section 3.4. Ultimately, your goal is to ensure that your networking is a two-way flow of information.

### 3.3.1 Sensitivity

Something that can also come into play in social interaction and anxiety is sensitivity. Some people are qualified as “highly sensitive” because they possess “sensory processing sensitivity” (SPS), which means that they have elevated levels of empathy, are very aware of their surroundings, and can be easily overwhelmed and overstimulated by large numbers of people, bright lights, and loud noises.\(^{34,35}\)

While the majority of highly sensitive people also qualify as introverts, there are also highly sensitive extraverts, who are invigorated by stimulating social situations but simultaneously experience sensory overload.\(^{36}\)

Just like introversion, high sensitivity has valuable aspects but can also pose an obstacle to certain in-person networking events. That doesn’t mean that highly sensitive people cannot be excellent networkers; in fact, their elevated levels of empathy can make them excel at communication. But as with introversion, it may require more strategy and advance planning to deal with overstimulating situations.

### 3.4 Empathy, Self-Awareness, and Communication

Empathy is defined as the ability to recognize emotions in others,\(^{37}\) and self-awareness is defined as the ability to recognize emotions within ourselves.\(^{38}\) These concepts are important to understand for effective networking, because communication, a necessity for networking, depends upon both empathy and self-awareness.\(^{1}\) We have to pay attention to our audience, see if our message is being received, and adapt as necessary. We can speak at length on a topic, but if we fail to do so in a way that our audience understands, we have communicated nothing. The emotions of the person or audience listening to us are important feedback on how well we are communicating, and our ability to receive that information, or the sensor we use for collecting this kind of data, is empathy. And the ability to
recognize the emotional states of others is highly dependent on our ability to recognize those emotions within ourselves, or self-awareness.\textsuperscript{10,11}

The good news is that both empathy and self-awareness are skills that you can improve through practice.\textsuperscript{39}

Aside from getting better at communication and networking, self-awareness allows you to assess your own abilities and have a good understanding of your strengths and weaknesses. Self-awareness and competence are positively correlated,\textsuperscript{40} which combats the Dunning–Kruger effect. The information acquired through self-awareness and self-examination can be used to find ways to improve areas in which you are weak, such as becoming more empathetic and enhancing your conversation and communication skills, and it can help you pick career goals that will make you feel fulfilled.

Through self-awareness, you can also find ways to mitigate your weaknesses by playing to your strengths. If you have trouble networking in large groups, recognizing this and finding ways to network in smaller, more intimate settings, is an example of how you can play to your strengths. Self-awareness also allows you to form a picture of how you are perceived by others, and to behave in such a way that the perception is as true to you and your goals as possible. And when people have an accurate picture of what you do and what you are capable of, it allows them to connect you with relevant opportunities or approach you with questions.

As a scientist or engineer, you may be familiar with keeping a laboratory notebook, and noting the details of your experiments, as well as recording the data you collect. It is possible and useful to do this with yourself. Performing and recording self-assessments will help you improve your self-awareness, and making notes to yourself can help to clarify your thoughts, as well as being a useful reference later to see how you are changing and improving. You can do experiments, such as writing down your responses to certain social situations, or after attempting rejection therapy. If you want, there are also formalized models for self-assessment, such as the Johari Window,\textsuperscript{41,42} that you can perform. Creating concrete, easily quantifiable goals (such as saying “Hello” to one new person a day), recording them, and then the results as you work towards them, can clarify your path forward and make a difficult problem feel more approachable.

Sometimes self-awareness means recognizing that you need to take a different approach than everyone else, or that a solution that works well for other people is not the best solution for you. This can be small-scale and day-to-day, or this can be large scale in terms of what kind of work you want to do or what your life goals are. When you are self-aware, you are better equipped to find the situations that suit you best and make you the happiest. It allows you to find the networking methods and strategy that works best for you, and to pass over things that don’t work as well, making your efforts more focused and efficient.

An important example of the utility of self-awareness in a networking setting is how to recognize and handle negative emotions. Realizing that you had a bad day or are in a bad mood is the first step, and this may not come easily to you at first. If you have trouble recognizing when you are in a bad mood, begin by learning to recognize the physical indications. If your shoulders are tight and high,
your heart rate is elevated, and your breathing is fast and/or shallow, these are physiological indicators of negative emotions. To calibrate, you will also need to note your physical state when you are feeling good and neutral, as this gives you benchmarks with which to make a comparative assessment. Remember that negative emotions are not “bad” but an indicator of your circumstances, and they give you valuable information about changes you might need to make.

Then when you recognize that you are in a bad mood, and you know that attending a social event is going to be hard for you, you can consider skipping it and performing self-care instead. No one benefits if you arrive sour-faced and grouchy. While it is important to be forgiving and patient with others, it is also hard to dispel a bad first impression. So if you recognize that it will be a struggle to be friendly and engaging, then give yourself the option to do something else.

Alternatively, if you are aware of a negative emotional state, there are certain actions that you can take to address it. For example, posture and emotion are connected: emotions can cause you to change your posture, and changing your posture can influence your emotions. Standing up straight also gives you the benefit of being able to inhale fully into your lungs. If you stand with a slouch, this compresses your lungs, forcing you to take shallow breaths, which are associated with anxiety and stimulate the sympathetic nervous system (fight or flight response); standing up straight and breathing deeply can help calm you and make you feel more confident. Because of this relationship between mind and body (this two-way flow of information is called “embodied cognition”), awareness of your emotions and your body is valuable. This also ties back to the idea of “fake it ‘til you make it,” as emulating emotions can engender them.

Recognizing your negative emotions, deciding not to attend an event if you cannot support it, or shifting your negative mood all require self-awareness. You have to know yourself and whether going to an event and pretending to be happy will actually succeed, and if attending will improve or worsen your mood. You may need to stay home, rest and relax, or get some exercise, instead of forcing yourself to participate in something that you won’t enjoy or be able to pretend to enjoy. For some people, doing something social and making themselves stand up straight and smile will make them feel better, and for others that’s a nightmare to be avoided for everyone’s benefit. Further still, your answer may be different from one day to the next, and it’s in your best interest to know yourself so that you can make the right decision.

Author Anecdote
One important aspect of self-awareness is recognizing “self-talk” and whether it is negative or positive. When I am preparing for a presentation, if I realize that I am repeating to myself, “I’m so nervous, I’m so nervous” (negative self-talk), it makes me more nervous. Identifying negative self-talk and changing it to “I’m going to do great, I’m going to do great” reduces the sensation of nervousness and calms me. It sounds cheesy, but it lowers my heart rate.
Being self-aware also makes it easier to read and understand the emotions of others. Conversely, being unable to understand one’s own emotions makes it much harder to understand the emotions of others. This is why self-awareness is foundational to empathy. Being empathetic allows you to adapt to your audience by observing the signals they are sending, not just with their words but with their body language and voice. A good communicator meets their audience where they are by changing their words or method of expression so that the audience can absorb the message as best as possible. Having a conversation and trying to share an idea requires adapting to your audience of one person, just as giving a presentation requires adapting to an audience of many.

There are many studies that demonstrate the value of empathy, but a particularly dramatic one examined how the empathy of physicians affected patient outcomes. Meta-analysis of 127 studies about how patients react to their doctors found that if doctors expressed empathy and concern, provided information about an illness and its treatments, and encouraged their patients to participate in decision making, then those patients were more likely to follow their physician’s recommendations on things like medication, diet and exercise, than those patients with whom communication was poor with their physician. This demonstrated that a physician’s ability to communicate has a direct impact on their patient’s health and recovery.

Empathy is also important for leadership. One study analyzing data from 38 countries looked at assessments of managers by both their superiors and subordinates. Managers who were rated as empathetic (exhibiting behaviors that indicate empathy) by their subordinates also tended to be rated as the best performers by their superiors. This implies that people who are empathetic are able to get better performances from their subordinates and therefore have better performance themselves, as observed by their superiors.

Fortunately, empathy is a social skill that can be trained and improved. Consciously trying to name the emotion that another person is experiencing improves our empathy. Improvisation training helps with empathy as well and is discussed in more detail below. You can take online assessments of empathy, including one by Lab in the Wild, which is a revision of a test called “Reading the Mind in the Eyes,” developed by Simon Baron-Cohen. Meditation is another way to become more empathetic, though the effect is on the small side, 4.6%. Reading literary fiction, where the author delves into the emotional lives of the characters, has been shown to increase empathy and improve one’s ability to understand what is going on in other people’s heads. Likewise, creative writing requires one to imagine the emotional responses of characters, which also increases empathy.

Two concepts that are intimately related to empathy and self-awareness are social awareness and emotional intelligence. Social awareness is the ability to be aware of someone else’s feelings, grasp their state of mind, and understand them. This term was coined by Edward Thorndike in 1920 and is the foundation for Daniel Goleman’s book *Emotional Intelligence*. Emotional Intelligence is a concept first described by Peter Salovey and John D. Mayer in 1990, which is “a
set of skills hypothesized to contribute to the accurate appraisal and expression of emotion in oneself and in others, the effective regulation of emotion in self and others, and the use of feelings to motivate, plan, and achieve in one's life.” 62 Emotional intelligence requires both self-awareness and empathy. [Goleman’s book, published in 1995, has sold over half a million copies and remained on the New York Times Best Sellers list for a year and a half.63]

3.4.1 Improvisation

Improvisation (also called improv) is a particular kind of theater training that teaches an actor to respond quickly to another person, allowing them to engage in a rapid dance of ideas and feelings. It is often performed as comedy but not necessarily; the key is that the scene is unplanned, with only a premise or starting point defined. The rest is extemporaneous. Improvisation is something that Alan Alda, who founded the Center for Scientific Communication at Stony Brook, teaches to scientists to help them increase their empathy and improve their communication skills.

The goal of improvisation is to learn how to make eye contact, to quickly respond to another person’s emotions and statements, and to resonate (empathize) with those emotions. The goals of small talk and conversation are much the same.

A core principle of improvisation is “yes and,” meaning that you hear and acknowledge what they say and then build upon it, moving the scene forward. “Yes, and” does not reject or deny the other person’s statements, and it is an excellent approach to use in other forms of communication, because it encourages instead of discourages. Learning and practicing improv can teach you useful skills that apply to work and personal issues, because ultimately, improv is just real life codified into a game. Life is unpredictable, and we are always reacting to unexpected or changing stimuli.

These principles apply to written as well as verbal communication. When you write, you need to imagine your audience, what they need to know, and the order in which they need to know it, so empathy plays a role in writing as well. Readers have basic expectations that need to be met or else they will become confused and frustrated. They expect to hear what a sentence is about at the beginning of the sentence, not the middle or the end: “Readers expect [a sentence] to be a story about whoever shows up first.”64 According to Alda, performing improvisation games before writing workshops improves the quality of writing because it gets participants focused on their audience and how they can be helped to understand.

There are many improvisation games, and all you need to practice improv is two people, though you can practice with large groups as well. The book Theater Games, by Viola Spolin, outlines a number of games.65 A few examples of improv games are described below, but you can find more both in Spolin’s book and on the internet by searching for “improv games” or “theater games.” To see comedic improv performed as entertainment, the show Whose Line Is It Anyway? has some good examples.

Scientists are often called upon to explain their work to non-scientists, and there is a particularly useful improv game for practicing this skill. It requires only
two people, but it can be performed in front of an audience. One person plays the role of explainer, and this person silently assigns the other person the role of a specific known person, e.g., their advisor, partner, young niece, or a celebrity. The explainer does not tell the other person their role; they simply explain their work or research to the other person as if they were the imagined person. This requires them to carefully tailor their explanation, and the goal of the game is for the other person to guess their assigned role. If playing in front of an audience, the audience can guess as well. Playing the role of the explainer will make you better at adapting to different audiences and describing your research in a variety of ways.

Another game that clearly illustrates the principle of “yes, and” is “Yes, Bob.” This only requires two people but can also be done as a performance for a larger audience. The two performers are both named Bob and deliver a fake newscast together. The first Bob opens with a statement about something that has happened (which can be supplied by the audience), and the second Bob then has to reply with “Yes, Bob” and follow with an additional statement building on the first statement. The first Bob must then reply “Yes, Bob,” and again build on the last statement, forming a story as statements are exchanged.

For example,

Bob 1: “Bob, this just in. It appears the zombie apocalypse has begun.”
Bob 2: “Yes, Bob, and it’s wreaking havoc on the stock market.”
Bob 1: “Yes, Bob, I’ve lost all of my retirement savings.”
Bob 2: “Yes, Bob, fortunately, we aren’t likely to survive until retirement!”
Bob 1: “Yes, Bob, I admire your optimism!”

etc.

Practicing improv with a friend or a group can improve your empathy and communication skills, but it may feel difficult to know where to start if you’ve never done something like it before. Reading about and especially watching videos of improv is a great place to start to get a feel for how it works. There are also many places where you can take improv classes if you want a more formal setting, including community centers, theaters, comedy clubs, and Meetup groups (Meetup is discussed more in Section 8.13). Just begin by searching “improv classes” and your city. If you enjoy it, there are improv troupes in many places that you can join. Whether you practice it with a friend, a group, or a troupe, improv will help you learn to respond more quickly in extemporaneous settings and increase your empathy and ability to adapt to your audience.

3.5 The Golden and Platinum Rules

You may already be familiar with the concept of the Golden Rule, which is about treating others the way you would want to be treated. The more formal name for
this rule is the “Ethic of Reciprocity.” The true origin of this rule is unknown, with possibly the earliest documentation coming from the ancient Egyptian story “The Eloquent Peasant” circa 2000 BCE. The Golden Rule is a good starting point for interaction, but it has a significant flaw: it assumes that other people are just like you and that they want the exact same things you want. Clearly, this is not true. People are diverse within their own cities and cultures, and cross-cultural differences further add to the complexity. Starting from the Golden Rule is good, because it shows concern for the well-being of others, but there is more that can be done.

Everyone has a different set of life experiences and personal preferences, so when you first meet someone, ascertaining how they want to be treated is challenging. It’s easier to know how someone wants to be treated when you’ve known them for a while. But a new acquaintance might have an entirely different background and be from a different place than you. Even if they are from your hometown, there is still a huge amount of individual difference. This is where you will need to rely heavily on your skills of empathy and observation to gauge people’s responses to your behavior, and then change your approach accordingly.

So when you first meet someone, start with the Golden Rule and treat them the way you would want to be treated. But recognize that it is only a rough estimate and that you will need to perform a calibration to determine the differences between your initial approach and what will actually make them comfortable. You perform this calibration by interacting with them and observing their response (empathizing); you can then use that information to alter your approach, which will make them more comfortable and you more fondly memorable. This variation of the Golden Rule is referred to as the Platinum Rule, which states that you should treat others the way that they want to be treated, and by doing so, acknowledge that everyone has different preferences. This is also about adapting to your audience, as discussed in Section 1.4.

In all of your interactions, professional and personal, your goal should be to keep your audience and conversational partners comfortable; this is the source and the goal of etiquette. Just as improvisation is the codification of life into a game, etiquette is a codification of behaviors designed to minimize discomfort during social interaction. However, strict adherence to the etiquette from your place of origin falls into the same trap as the Golden Rule: it fails to account for variation. This is why you should observe the Platinum Rule as much as possible (see Chapter 4 for further discussion on etiquette).

### 3.6 Authenticity

A core and important part of sustainable networking is honesty. Being honest as a networker means representing yourself accurately in your interactions with other people, so that they get to know the real you. But offering an appropriate, authentic version of ourselves in a professional networking setting can be a challenge. Some of us may not naturally speak about ourselves, and we may fail to offer enough information to paint a complete picture. Or we may be the kind of people who have trouble filtering our thoughts and how we express them to others, and uncertain
what aspects of ourselves should be discussed. The importance of adapting to your audience has been discussed previously in Chapter 1, and it applies to how we authentically express ourselves as well.

Adaptation in this context is about presenting ourselves and our thoughts in a way that is comfortable and understandable for our conversational partner. This may mean learning a new way of expressing ourselves, but it is important that the content of our messages (who we are and what we do) is the truth. You are a complex and multifaceted being, and so you should select the relevant facets of yourself to share with others as you network. This is not inauthentic; it is filtration and curation to convey a positive message that is consistent with your goals and networking strategy (which are an authentic reflection of you). What facets you present depend on the context and the audience.

Honesty and authenticity are especially important, because the opportunities that your network will provide you reflect how you represent yourself to your network. You want that representation to be as accurate as possible, so that the people and opportunities that you attract align with your interests and abilities. Some network connections will also become friends if you let them, and that is more likely to happen if you are honest.

Further, by being authentic and sharing about yourself and what you care about, you are opening up a space for your conversational partner to share in kind. This is called the “norm of reciprocity,” where people tend to respond in kind to your behavior.\textsuperscript{67,68} It means that people will tend to share with you the kinds of things that you share with them and that you should share the kinds of things about yourself that you would like to know about others. If you share nothing about yourself, then it is unlikely that you will make strong connections or be memorable, and remembering each other is key to integrating a person into your network. So share authentically about yourself and what you find interesting, and listen carefully to the response you get.

Authenticity is a special challenge, because it requires you to know who you are and what you want to accomplish. Self-awareness is important not only because it is foundational to our ability to empathize and communicate with others but also because it is key to knowing what you want from your career and setting the appropriate goals and networking strategy. Knowing yourself through self-awareness, and others through empathy, will help you to be authentic, communicate, and make meaningful connections with others.
Exercises

(1) It can be instructive to do a self-assessment to practice the skill of self-awareness and identify areas that need improvement. Spend some time taking notes and writing down answers to the following questions:

(a) What do you perceive as your strengths and weaknesses in terms of social interaction?
(b) What kinds of networking environments make you feel the most comfortable?
(c) What makes you nervous?
(d) What makes you happy?
(e) What skills do you want to acquire?
(f) What kinds of interactions with others are challenging?
(g) How are you at entering conversations? Leaving them?
(h) Do you talk or listen more?
(i) Are you able to comfortably maintain a conversation?
(j) Are you better one-on-one or in a group? Digitally? In a large room of people? At a dinner party?

(2) Think about where you identify on the continuum between introversion and extraversion. You will likely have features of both, but identifying them will help you find optimal networking opportunities for your traits and preferences, as well as strategies optimized for your strengths.

(3) Reviewing the suggestions in Section 3.4, pick a strategy to practice empathy and self-awareness, and then try it out. For example, try to imagine and label the feelings of people that you see; watch and try some improv; or read some literary fiction. Do this regularly, and record your efforts and any improvements.

(4) Think about topics of conversation that interest you and allow you to share facets of yourself with people that you meet. These topics should be personal but appropriate for professional networking situations, such as your interest in reading science fiction or the type of fitness you enjoy practicing. Keep it clean, but make sure it’s authentic, which will allow you to have an interesting conversation with someone. While you will primarily discuss professional matters at networking events, preparing peripheral conversational material in advance will help you connect with others in a positive and memorable way.
References


11. Brownell, S. E. et al., “Science Communication to the General Public: Why We Need to Teach Undergraduate and Graduate Students this Skill as Part of Their Formal Scientific Training,” *J. Undergraduate Neuroscience Education* 12(1) (October 15, 2013).


