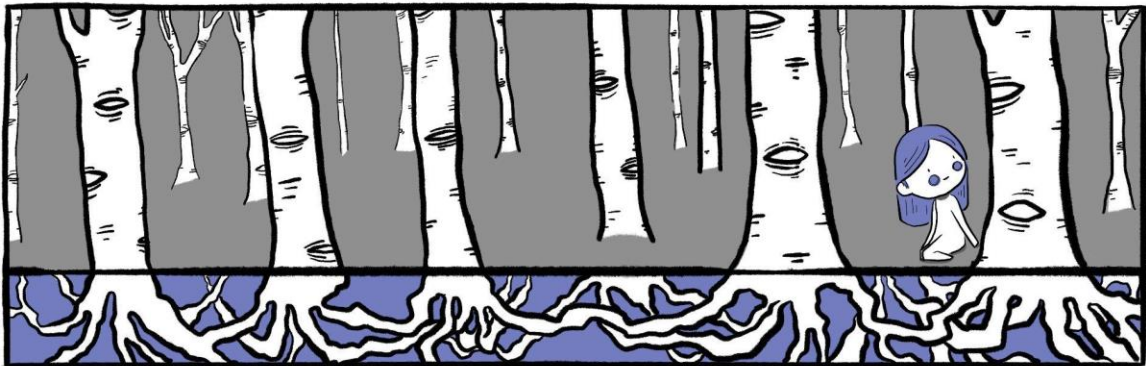


Communication Lessons from the Wild

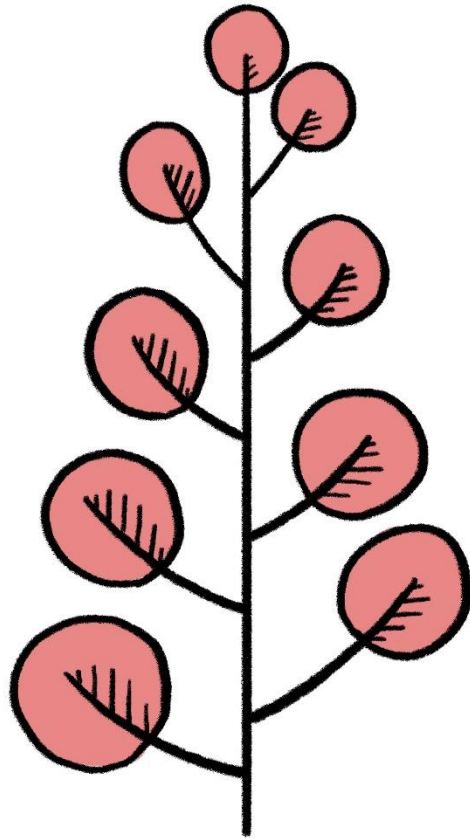


Reyhaneh Maktoufi, PhD

Written and illustrated by Reyhaneh Maktoufi, PhD
2022

Please help me get a better understanding of the impact of this book. To do so, could you fill [this VERY short survey](#) now and another one at the end of the book?

Thank you!



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I remember when I was 7, every night I would go down the stairs of our house in Isfahan, to my grandmother, Omi's kitchen. She would take a small piece of dried lavash bread, dip it under tap water, wrap it around some feta cheese and feed them to me slowly while retelling me the stories she had heard on the radio the night before. All stories of animals, as friends and enemies. Tricking and befriending one another, showing off their differences, their strengths, and their wit.

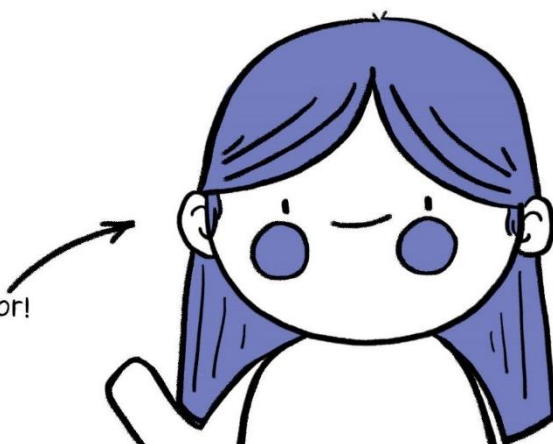
Those were some of my happiest memories. My Omi is gone now and I miss her every day, but when I feel lonely, scared, confused, or desperate for an answer, sometimes I try to listen to what the tree, the stark, or the wolf have to say. That's what she taught me.

And one of the things that has been really scaring me lately is that a lot of times we don't know how to talk to each other. Especially when it gets to things that determine our future. Talking about climate change, vaccination, GMOs and so much more. So, I'm going to do what I do best. I'm a social scientist and I research the science of science communication: what are the best ways we could use to talk to each other about science?

Let's see what the wild has to say as an answer to this question. In this book, you'll get to learn about animal fun facts combined with evidence-based communication lessons.

So, this one's for you, Omi.

Reyhaneh, the author!



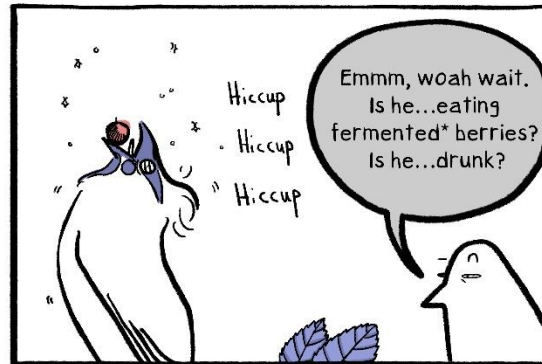


Biases

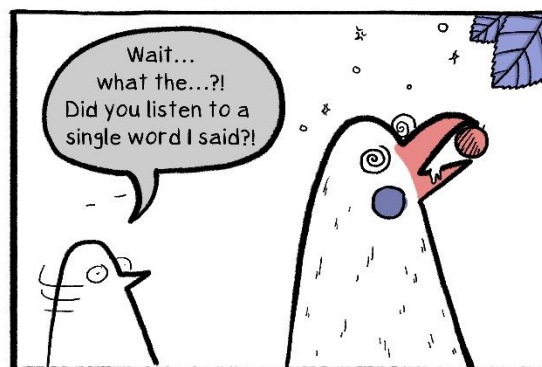
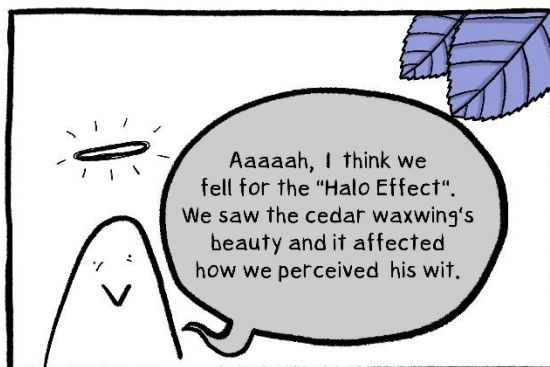
Think of a bias as a tendency towards or against a person, a thing, or an idea. We have lots of biases that influence what information we consume, how we interpret it, and how we make decisions based on it. So, when we communicate with others, it's good to remember others' biases but **ALSO** that we have biases as well. Be kind to others and be aware of yourself.



The Halo Effect



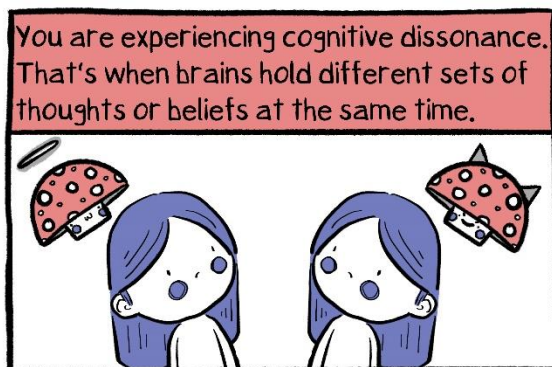
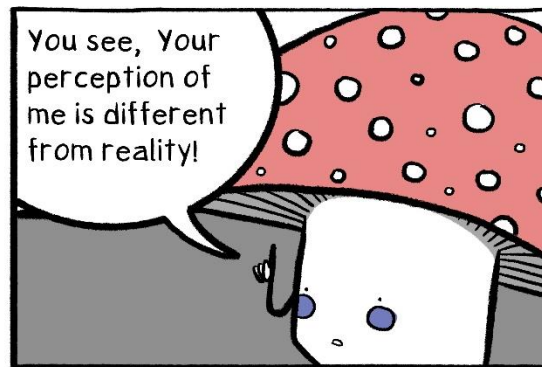
*Fermentation is the process that makes alcohol.



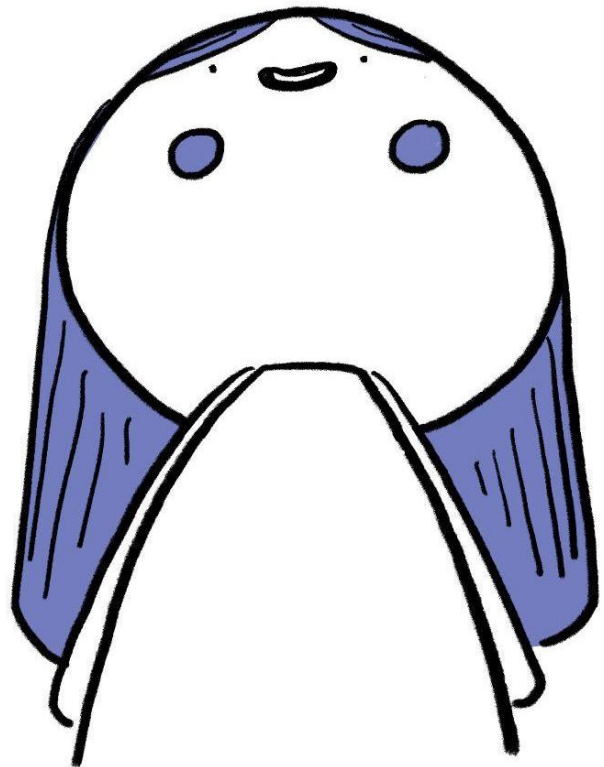
The halo effect is a type of cognitive bias where someone's looks or other attributes affect our impression of them. For instance, we might think "Oh, look at this handsome human, I bet they're also smart and nice." But the effect can be negative, too. Like "Ugh look at that ugly sweater they're wearing, I bet they also have stupid ideas!" And the whole process takes place at an unconscious level, so we probably aren't even aware of how the halo effect impacts our perceptions of people.



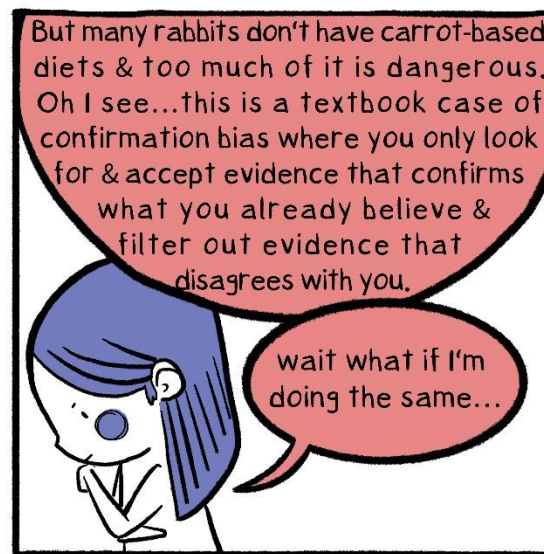
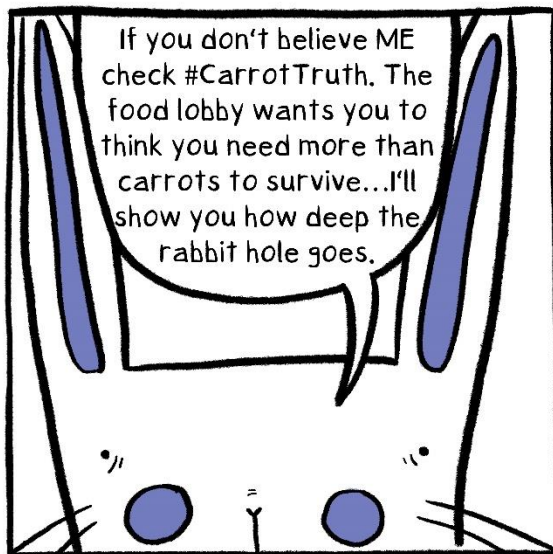
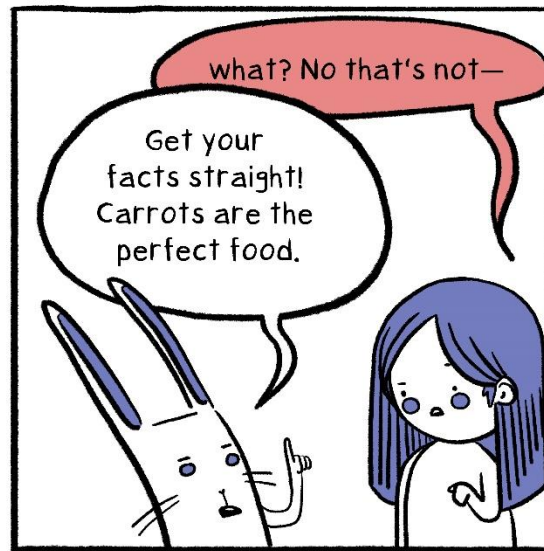
Cognitive Dissonance



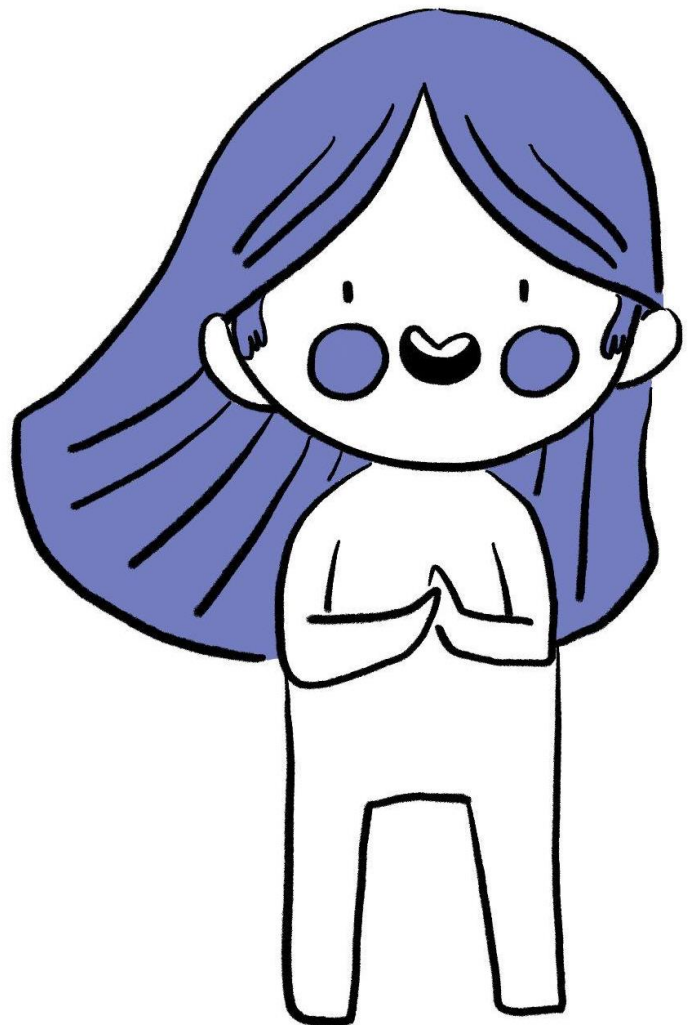
We experience cognitive dissonance when our beliefs, attitudes, and behaviors aren't in alignment. For instance, we might hear that a good friend that we trust (let's call them trustworthy Tim) is mean to another friend (Sad Sam). To deal with this inconsistency, sometimes our brains try to justify the inconsistency. Maybe Sam did something wrong? Maybe Tim wasn't mean but just said it with a louder voice? Maybe this is all fake news?! When we try to justify these conflicts, it's called motivated reasoning.



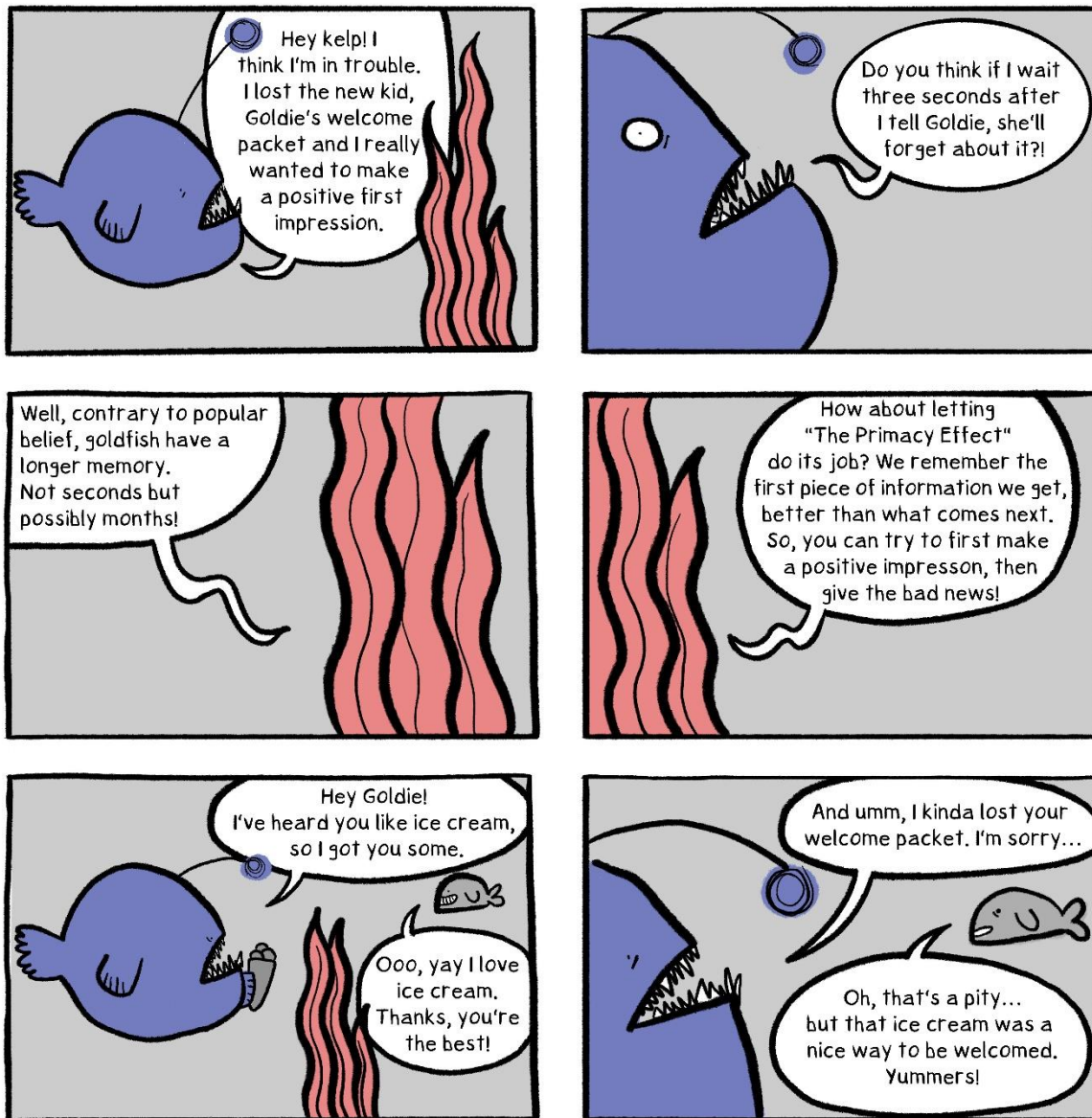
Confirmation Bias



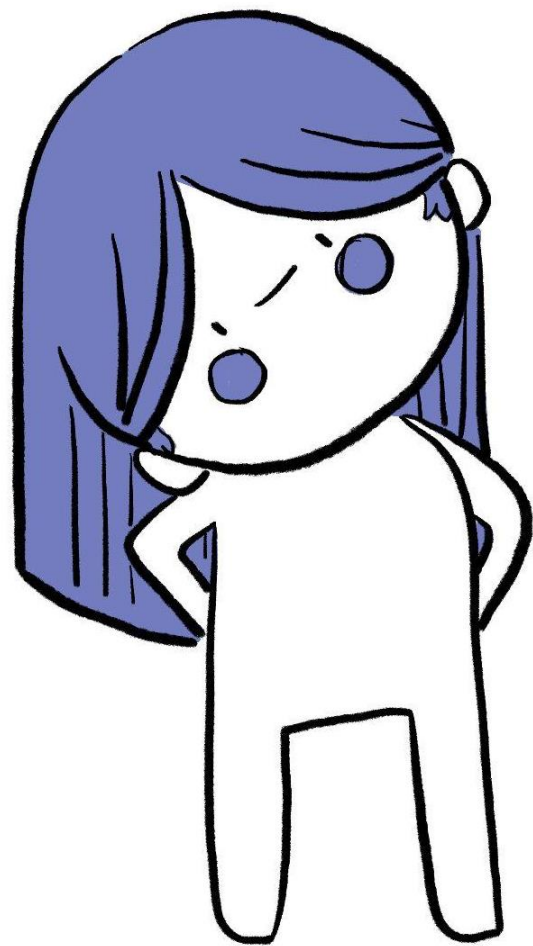
Confirmation bias is when we start looking for information that confirms what we want to believe. For instance, if we want to prove to someone that chocolate is good for teeth, we might look up "Is chocolate good for my teeth?" rather than "Is chocolate bad for my teeth?" or "what does chocolate do to my teeth". We also might ignore any argument against chocolate and only read pro-chocolate articles.



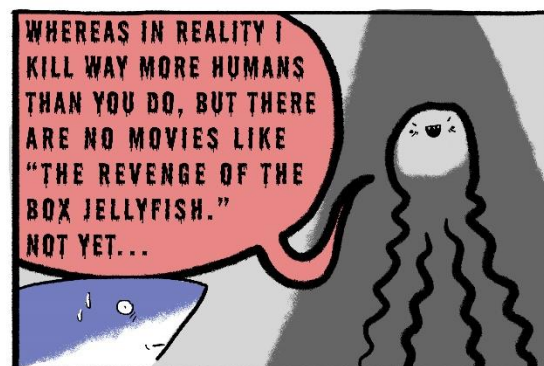
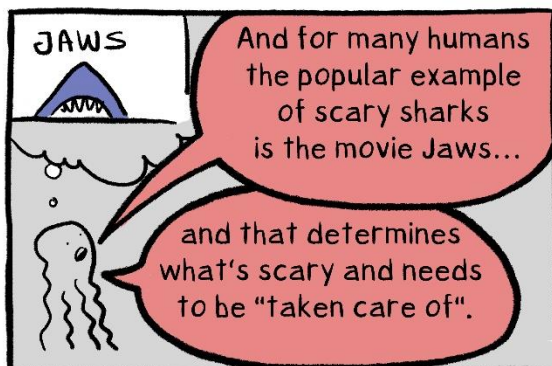
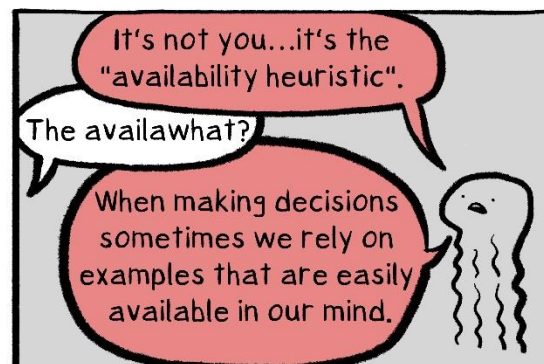
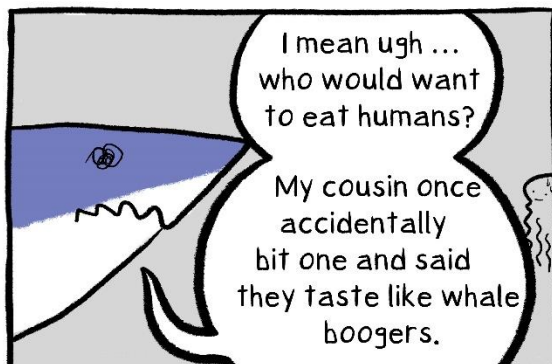
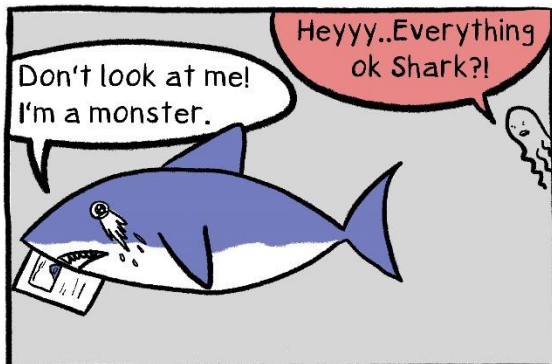
The Primacy Effect



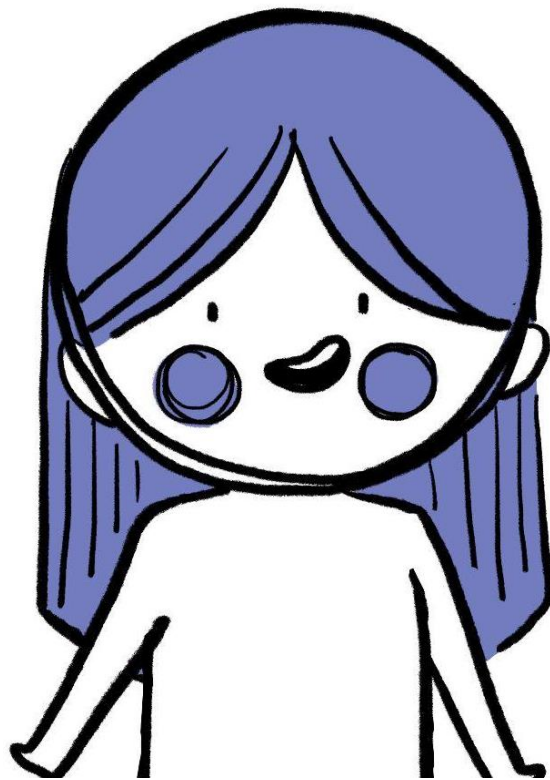
The primacy effect is our tendency to remember the “firsts” better than whatever comes next. Like the first piece of information we receive, or the first tasks on a to-do list. It also helps us with first impressions. Let’s say a new book is out that we like, and we want your best friend to like it too. We want to tell our friends good stuff about the book **FIRST** before anyone ruins it with bad reviews.



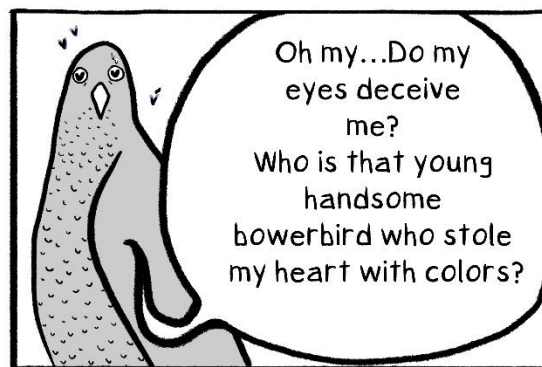
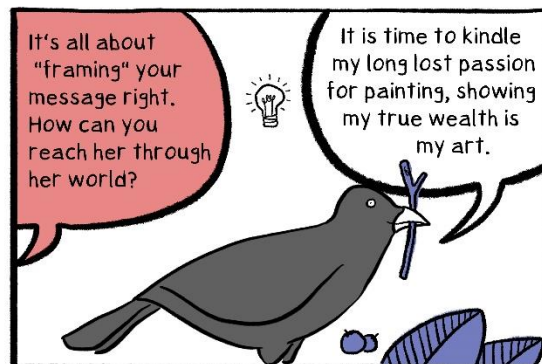
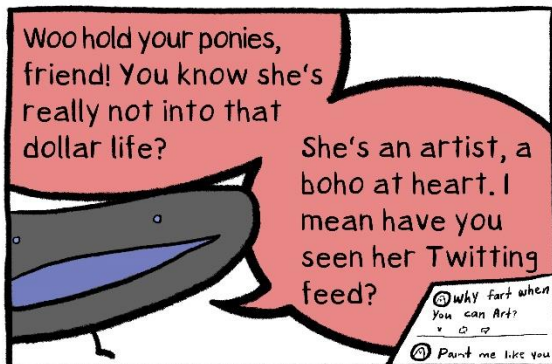
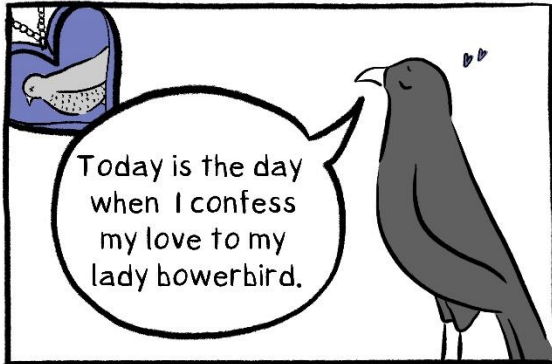
The Availability Heuristic



The availability heuristic is our inclination to believe something or make decisions based on easy-to-access information. If a fake news story spreads more easily because it's readily available and easily understandable, then we should focus on making sure that accurate information is also easy to access and understand.

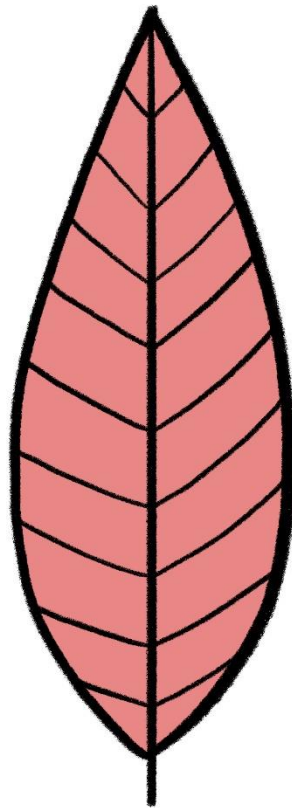


Framing



Imagine you want to get a company to use sustainable energy resources. That company, however, might not care about the environment. So “framing” your message with an environmental emphasis might not work. That company might care more about economic outcomes, so they become interested once that same suggestion is framed as a way for them to save on energy costs. People develop different attitudes about issues based on their personal values and beliefs. So, if you are designing messages to impact them, it might be best to try to frame messages while considering those values and beliefs.



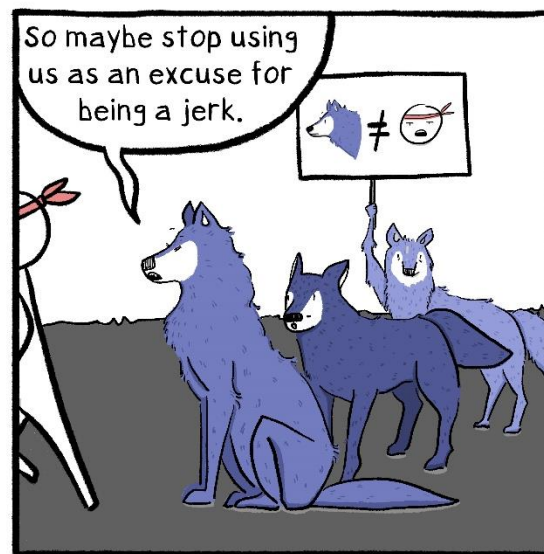


Trust

When we communicate with others and want to change their attitudes or behaviors just providing facts might not be enough. Biases, values, and beliefs impact our decision-making. We need to be “trustworthy” messengers. Not just pretend to be, but really be trustworthy. Let’s talk about four important ways to show our trustworthiness.



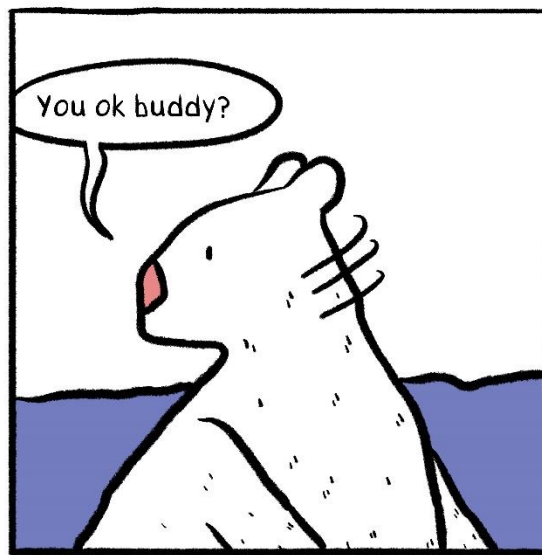
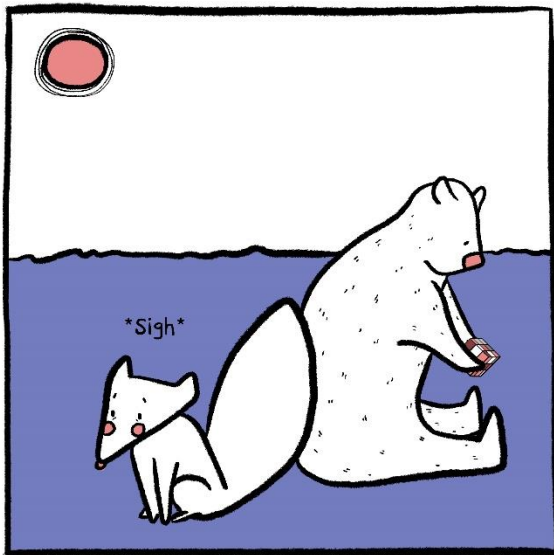
Kindness



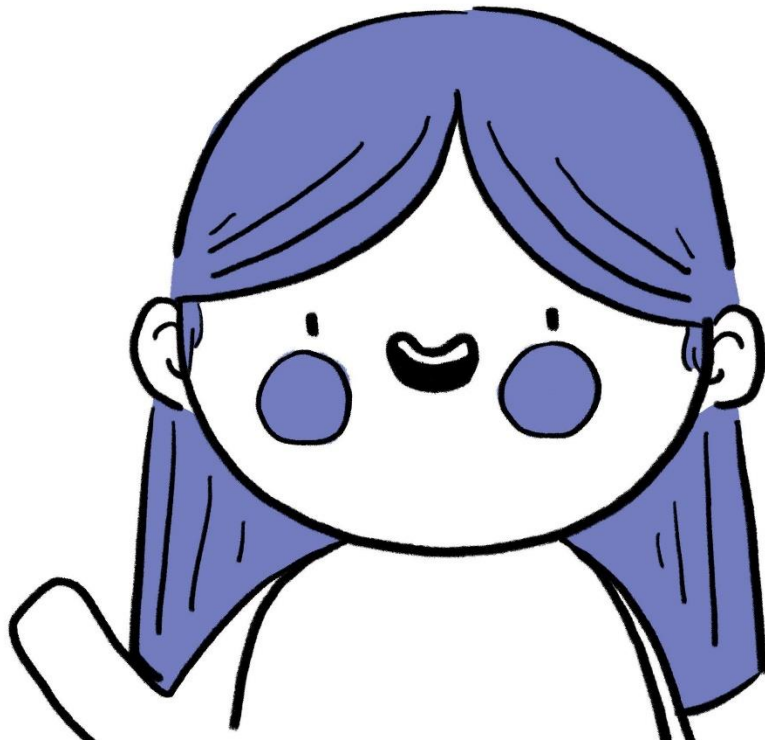


It goes without saying that we don't want to trust a mean person. Are you trying to get someone to eat healthier? How do they know you're not just telling them to eat that food because you can make money off it, or worse, to POISON them?? You need to show them that you're considerate and caring, and that your intentions are good, and you want to help them. For example, you can just tell someone "Hey, I really care about you, and I need you to know that I want the best for you."

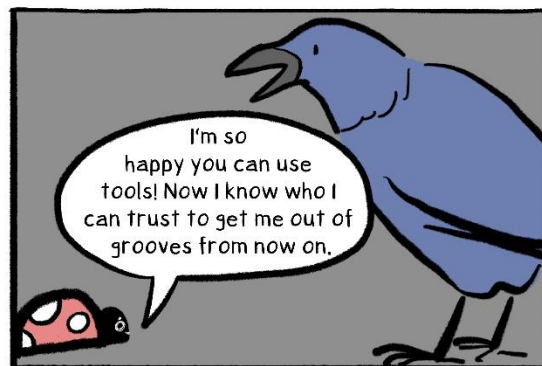
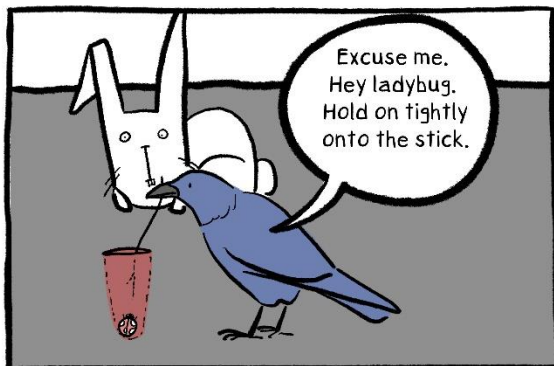
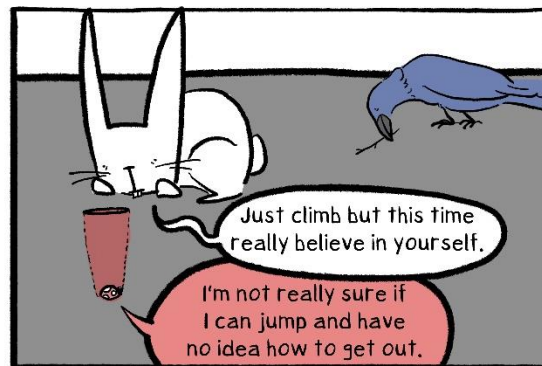
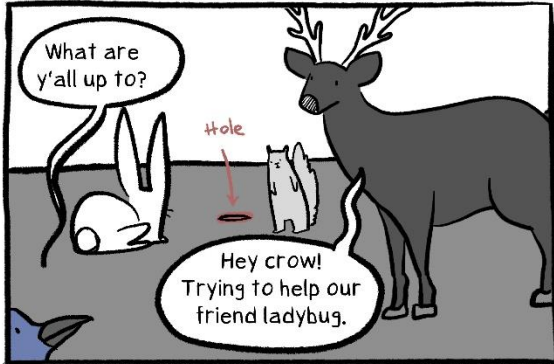
Integrity and Honesty



How can we trust someone who doesn't have integrity and who's not honest? Well, we can't. Let's say you really want someone to join a club you're a member of. They ask you about the pros and cons. That's where you need to be transparent about all good things: "Great books there!" and not so good things "The food is meh" AND about things you actually don't know "Not sure what the pet policy is, let's find out!" This way you show your integrity and that you're an honest person.



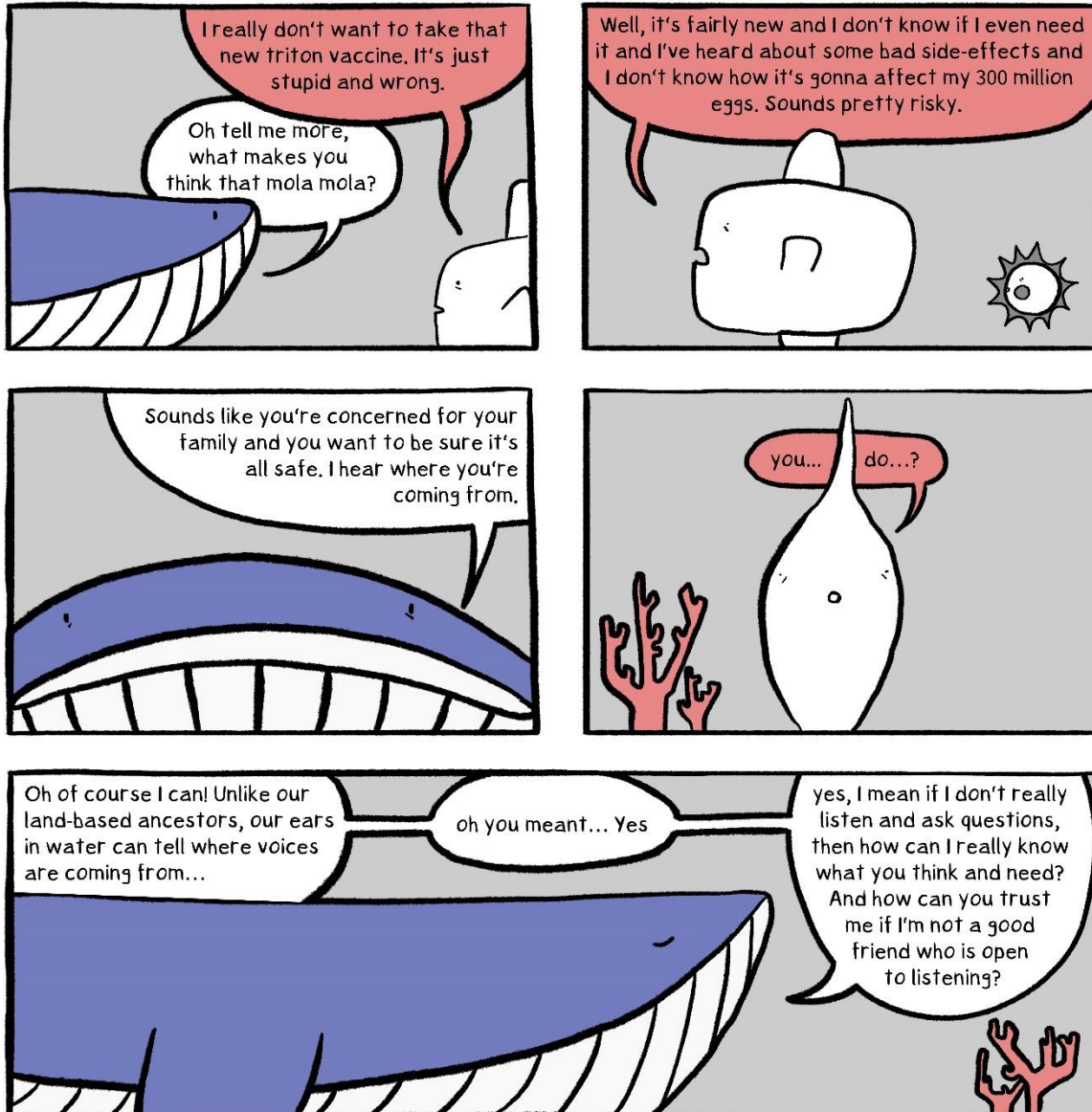
Competence



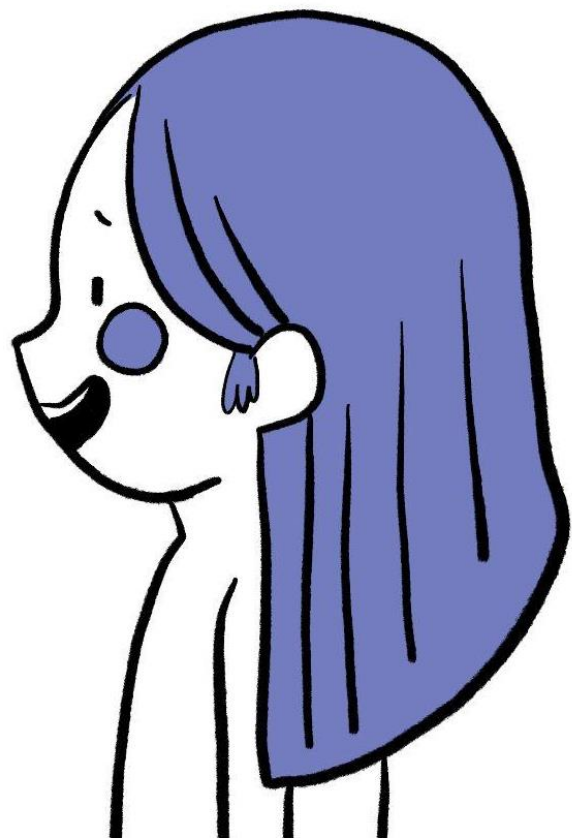
Showing that we're competent is an important element of building trust. That means showing people that we actually know what we're talking about; that we have the expertise, the knowledge, and the experience to do something; and we do that thing well. For instance, a doctor might be super nice and funny, but to trust them with our lives, we probably also want to know that they are good at their job. We can show your competence in different ways, like by sharing our credentials or examples of past experiences.



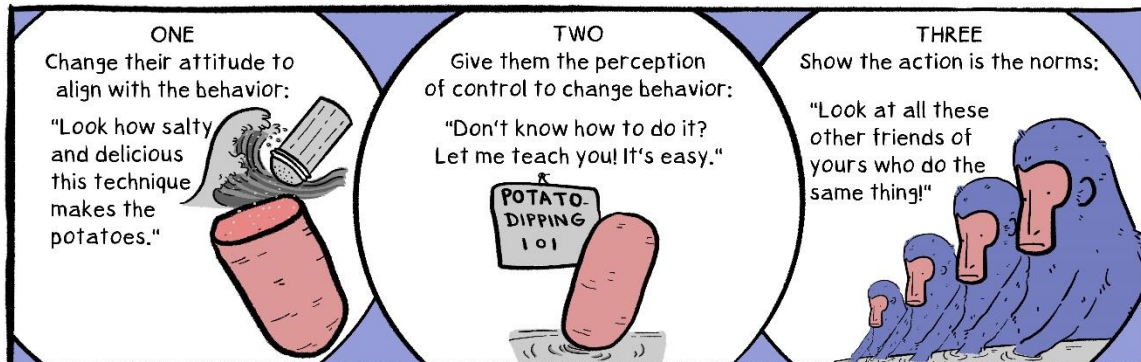
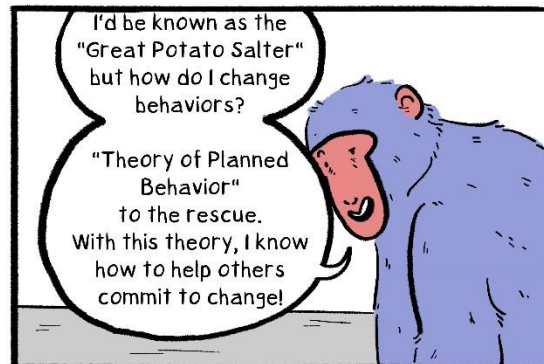
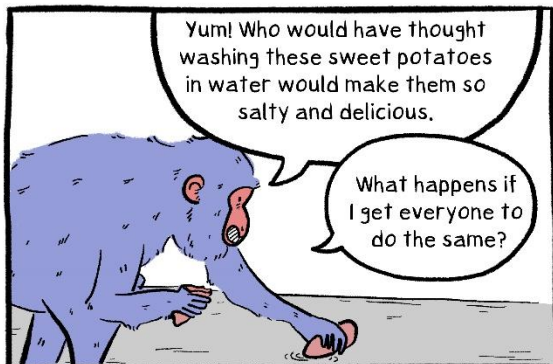
Listening and Openness



Think of openness as having an open heart and ear: let others see what's inside your heart and be open to what others have to say. Do you want to hold a party for your friend and get them to join? Well, you need to listen to what **THEY** need, what they have to say. Make the party into what they care about. Encourage them to give you feedback and in return, you should also be clear and open with them. Tell them what you're planning and give them the full picture. If there's something you feel unsure or less confident about, tell them about it.

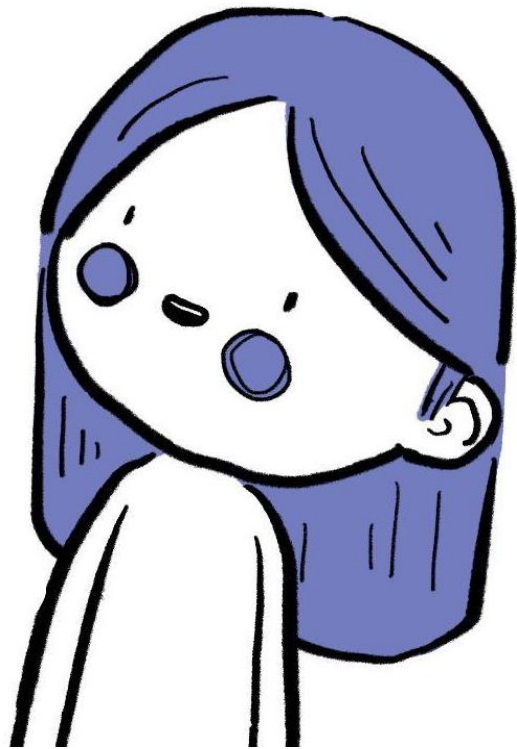


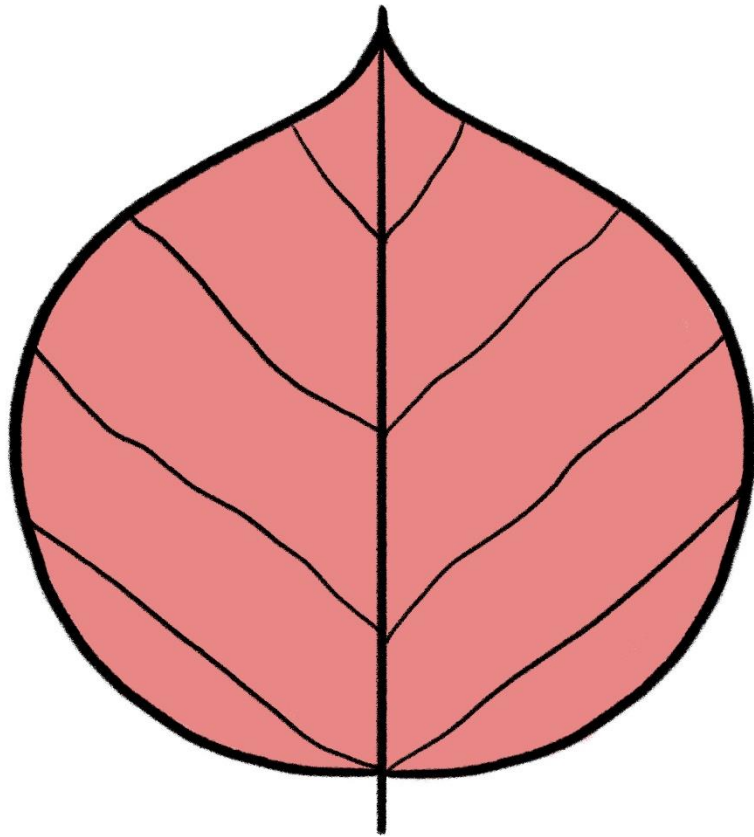
Behavior Change



If we want to help someone change their behavior, one place to start is the theory of planned behavior. The theory suggests that our behavior is predicted by our **attitude** about that behavior, if we believe we have the ability to perform that behavior (**perceived barriers**), and what we believe others think about that behavior (**subjective norms**). For example, if we want to help our friend quit smoking, we need to:

1. **Attitude:** Show our friend the benefits of giving up smoking and the risks of smoking.
2. **Perceived barriers:** If our friend is worried about nicotine dependency, we should let them know about nicotine patches as alternatives.
3. **Subjective norms:** Show our friend that most of their peers also don't smoke.



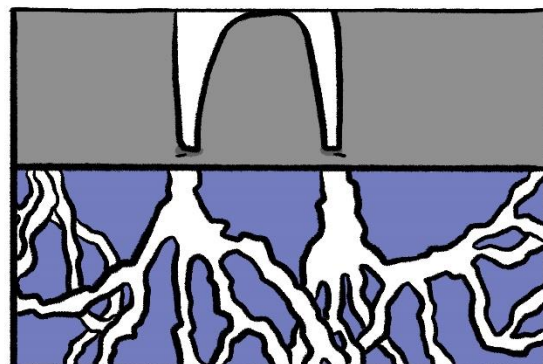
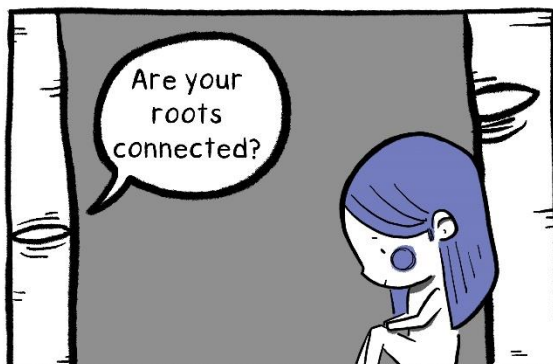


Principles

There are some basic principles that guide me on how I communicate with others...maybe they'll also help you navigate the world as communicators.

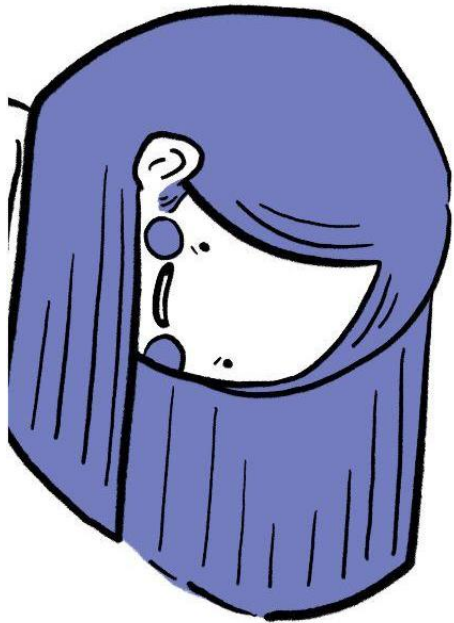


Connectedness



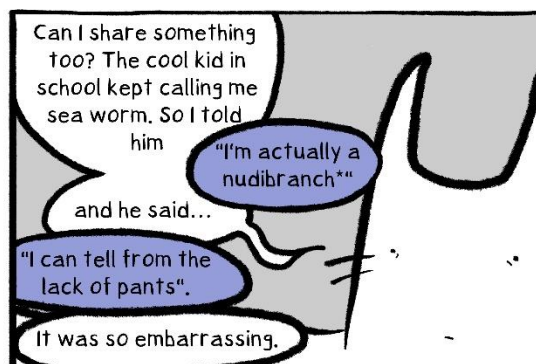
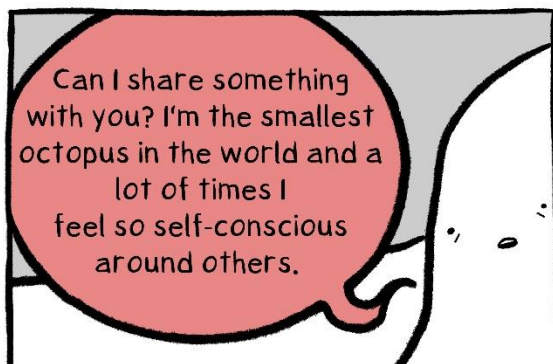
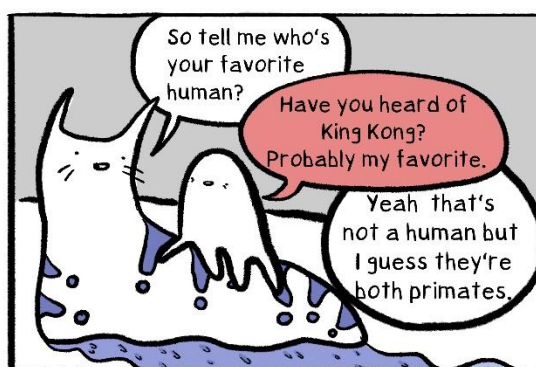
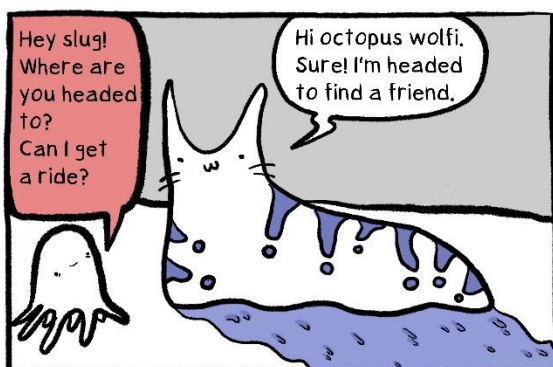
You might ask yourself "How much impact can I have as only one person?" Well, I think of change as something we all contribute to. Maybe it's our collective small acts of kindness that can help people be open to change. Our actions are connected, and so are our pains. The Persian poet Saadi says:

"Human beings are members of a whole
In creation, of one essence and soul
If one member is inflicted with pain
Other members, uneasy remain"



“ بنی آدم اعضای یکدیگرند
که در آفرینش ز یک گوهرند
چو عضوی به درد آورد روزگار
دگر عضوها را نماند قرار ”

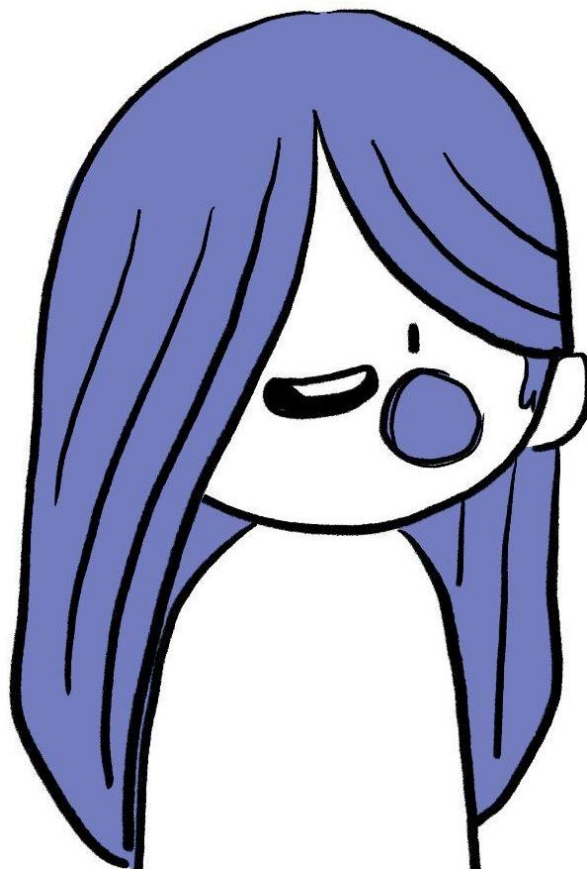
The Journey is the Destination



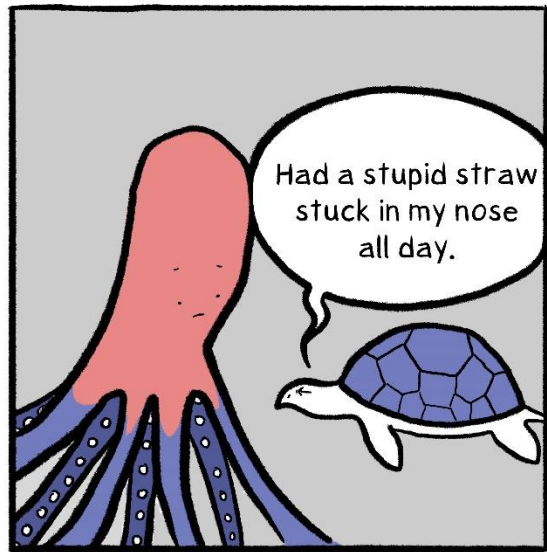
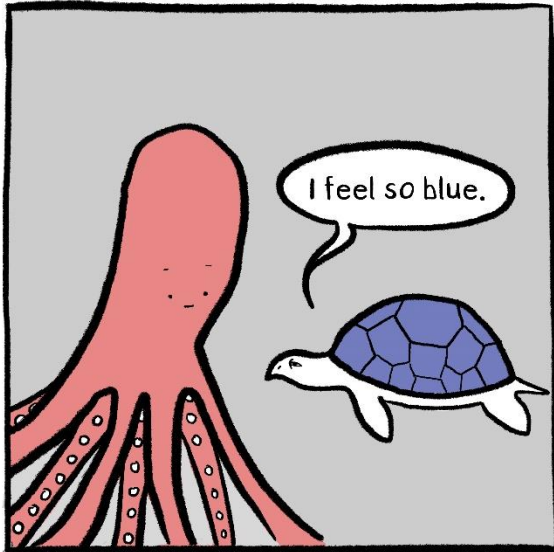
*That's my scientific name.



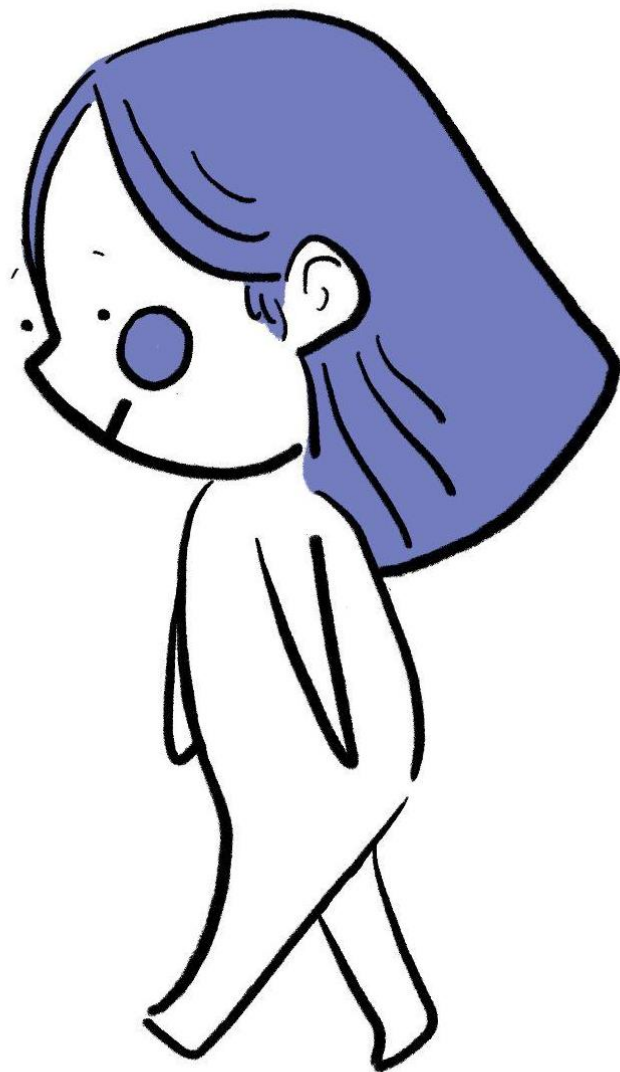
When I want to make things better and try to communicate with people to make changes happen, sometimes it's really hard to see a destination or a final change, and that can be disheartening. But what I need to remember is that the journey, the connections we make, the conversations we have, the curiosity, the empathy, the care are all the destination.



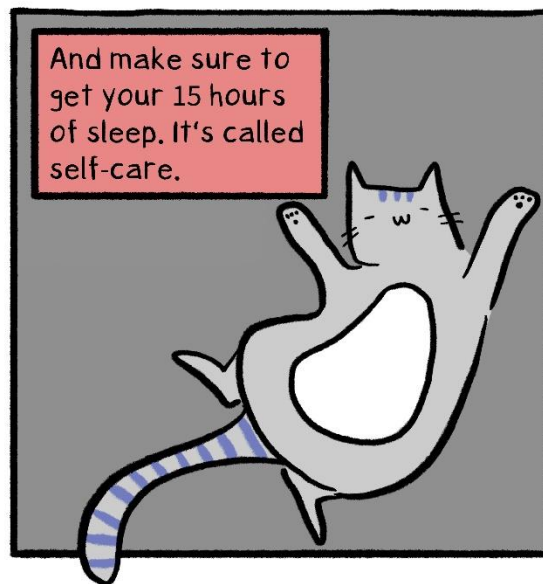
Empathy



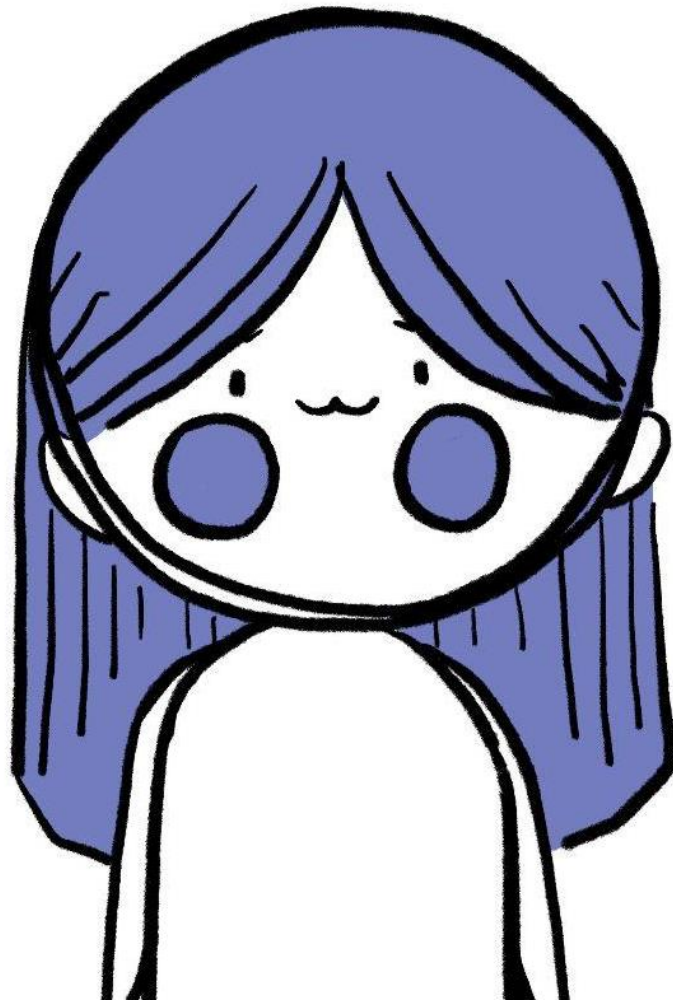
Empathy is trying to put yourself in others' shoes. Why do they do and think what they do and think? It's a kind of caring curiosity if you ask me. It's not necessarily accepting people's decisions or views, it's just a way to understand and connect. I like to think of empathy as the first step to any communication attempt.

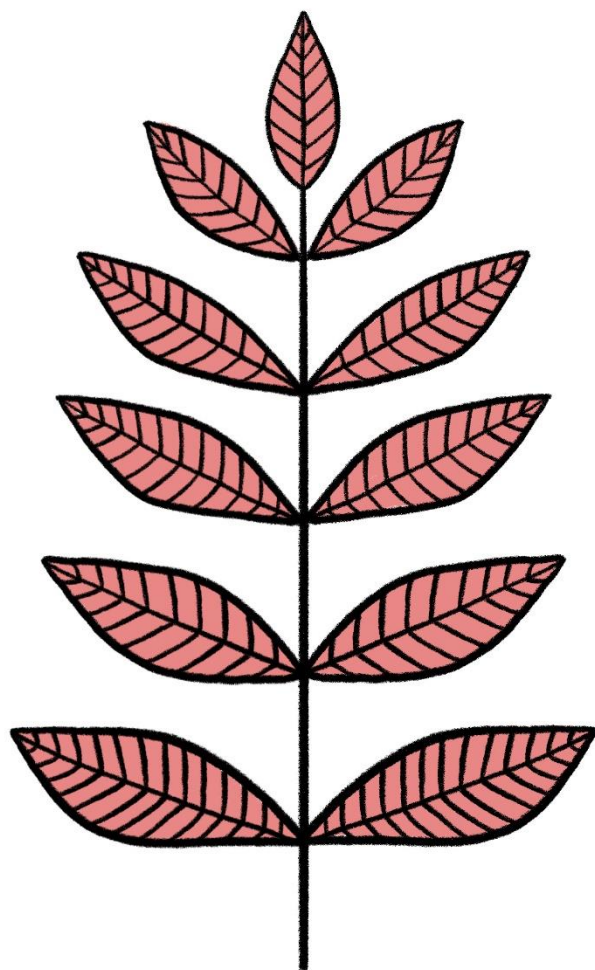


Self-care



Self-care is collective care. If I'm exhausted, burnt out, and sleep deprived, how can I show curiosity, care, and empathy? Not only that, as I take care of myself, in a way, I'm showing others it's ok for them to do the same. The beauty of being alive is to stare at a leaf, let the wind go through your hair, listen to the bow sliding on the violin strings, cuddle with a dog, shower in the morning light. Take the time to figure out how self-care looks for you.





Thank You

It really did take a village to put this comic book together. I am so grateful for the support of my teachers and mentors who taught me about the science of science communication. I also want to thank the artists and those who I follow on social media who taught me, knowingly or unknowingly, how to make comics!

A big thank you to all the science communicators out there who have been sharing their knowledge and wonders of the wild with us all. And finally, my greatest appreciation for everyone who talked to me about this project, shared their feedback with me, and supported me. Here are just a few of them:

Liz Neeley, Sara Yeo, Josh Silberg, Amanda Coletti, Niveen Abi Ghannam, Samuel Ridgeway, Madeline Sofia, Arun Dayanandan, Jordan Collver, Maris Wicks, Matteo Farinella, Khoa Tran, Jaye Gardiner, Minh Ngo, Siddharth Kankaria, Robert O'Malley, Leonardo Barolo Gargiulo, Cassidy Swanston, Ayda Pourasad, Michael Bowen, Jana Schilbert, Jacqueline Goldstein, John Besley, my brother Hossein, my maman and baba Naghmeh and Sadegh, and my tree Michael Elmetts.



Omi and her cats; a dream.

One more survey to go! Please help me get a better understanding of the impact of this book. To do so, could you fill [this final VERY short survey](#)?

Thank you!