

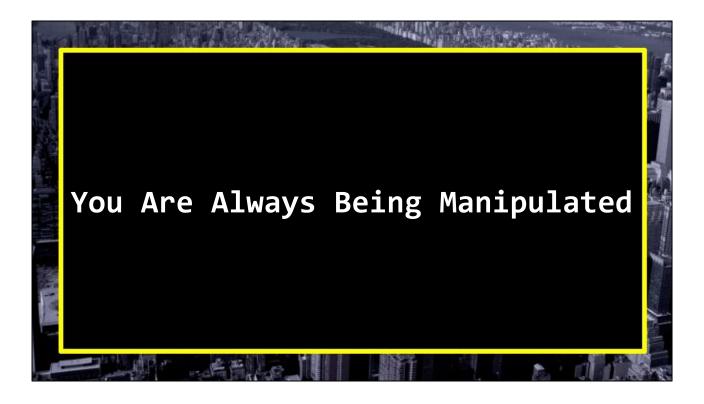


Good Afternoon. Normally, this is where I tell you about me, but since my daughter couldn't make it I want to tell you about her.

Afterall, she is the hero in the story. Lena changed the way I looked at awareness and training.

Children are social engineers. Well let's be fair they are tiny con artists solely focused on accomplishing their goals.

But everyone in the room is probably more concerned with the title and how they are being manipulated.



So, that is the bad news. The good news is that if you didn't know it before you do now.

Watching my daughter's attempts to manipulate other people and myself expanded my awareness.

The problem is that as her attempts got better I begin to notice the moments where others were manipulating me.

Most of these interactions are not malicious, and in many cases are unconscious. It was I realised that these manipulations happen all the time.

At first I lost faith in humanity. Then, I remembered something an instructor of mine said, "Every moment in life, good or bad, can teach us if we are willing." (paraphrasing)

Embracing that wisdom, I built a training program with my daughter as my teacher and training partner.

Before getting to the training program, we need to understand the actors and roles they play.



It is important to remember that most of these are benign or actually beneficial.

- 1. Advertising
- 2. Friends and family
- 3. Small creatures also known as pets

For those keeping score and playing out in the audience, I would like to point out that this picture counts as meeting the infosec minimum of at least one cat picture per presentation.

Normally, there would be more, but I was having trouble finding pictures of cats on the internet.

As you can tell from the center picture, Lena was beginning to wear down my defenses that evening. That poor guy has no idea what is going on at the moment. The good guys are our training partners and instructors.

Left Image Credit/Copyright: https://en.wikipedia.org/wiki/List_of-tallest_buildings_in_Charlotte (Creative Commons)

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Then, there are the bad guys

- 1. Scammers
- 2. Phishing/Vishing Attacks
- 3. Watering hole Attacks
- 4. Advertising

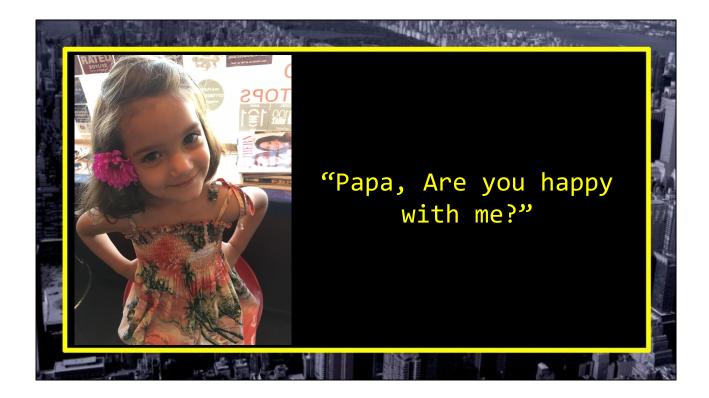
The bad guys are our adversaries. They are why we build the program and train. Now we know the truth and the actors involved.

And knowing is half the battle... (The children of 80's will get it)
Moving into the second half of the battle, leads us to a central question.
How can we use the benign low-risk interactions to increase our situational awareness so we are prepared for the real dangers?
Like most interactions in life it starts with trust.

Image Credit (Copyright): Noam Armonn (Shutterstock)

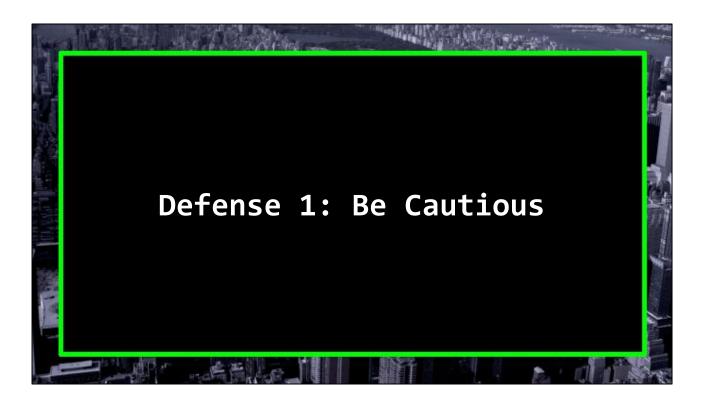


Trust is an obvious foundation for our training program.
You guys have to have a small amount of trust to sit here listening to me
My daughter has an advantage in that I trust her. She knows this and uses it daily.
Let's take a look at an example.



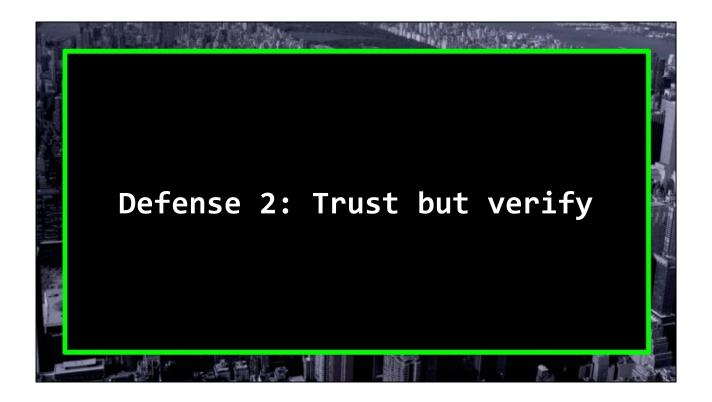
Lena Example: "Papa, are you happy with me?"

- 1. Build trust with the parent
- 2. The parent responds favorably: "Of course, I am happy with you."
- 3. The tell: "Then, I will have chocolate for dinner."



Defense 1: Be Cautious

- 1) This is just good advice and is the foundational defense for all attacks
- 2) Being cautious makes us slow down and think
- 3) When we think we evaluate the situation.



Trust but verify

- 1) We want to trust other people. It is instinctive
- 2) Trust helps us survive and build civilizations
- 3) Doesn't mean you don't trust people
- 4) Verify through independent sources; In the case of my daughter an independent source is usually my wife.

Let's move into a real world example, that I am sure everyone in the room is familiar with.

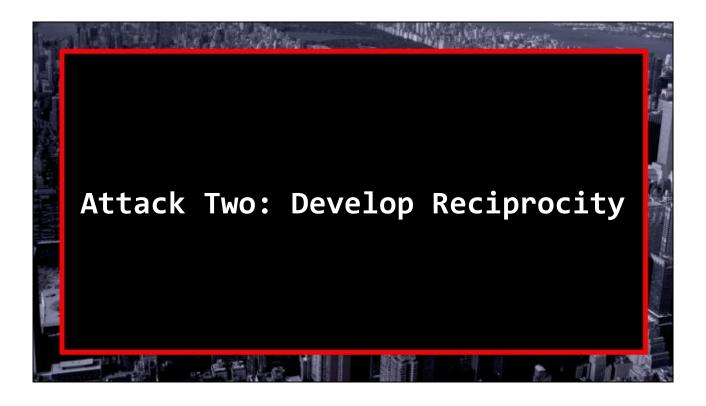


Real World Example: "I'm Dan from IT. I'm here to help verify your updates."

- 1) Build trust with the target
- 2) Target responds favorably: "Morning, Dan. My computer is up to date."
- 3) The tell: "Excellent. I just need to verify through website X"

Common with all real world examples, there are multiple forces at play. In this example, we either trust IT or we are compelled because of the authority of IT. Unless we are cautious and verify, the result is the same.

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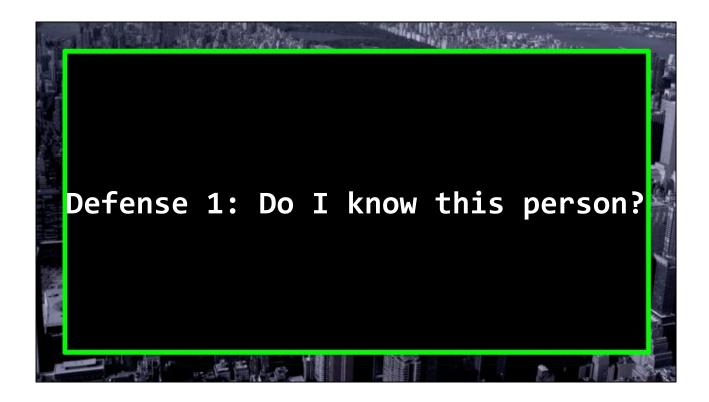
Building on the foundation lessons from trust, Lena adapted her approach to use the principle of reciprocity.

I will point out that this is the advantage of being the parent of a young child. They learn and adapt quickly. They are constantly improving.



Lena Example: "Papa, look how good I am cleaning!"

- 1. The opening: Give something unexpected to the parent
- 2. Reinforce: "Look at how clean I made it. I did good, right?"
- 3. The ask: "Since I did a good job, can I have candy?"



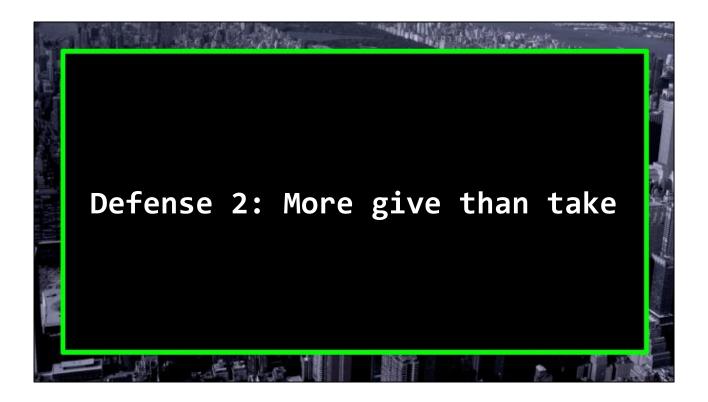
More correctly, how well do I know this person?

This is where Lena started at an advantage, because I know her very well.

However, this became a disadvantage as time passed.

The question is the starting place for this lesson, because it allows us to determine the motivations.

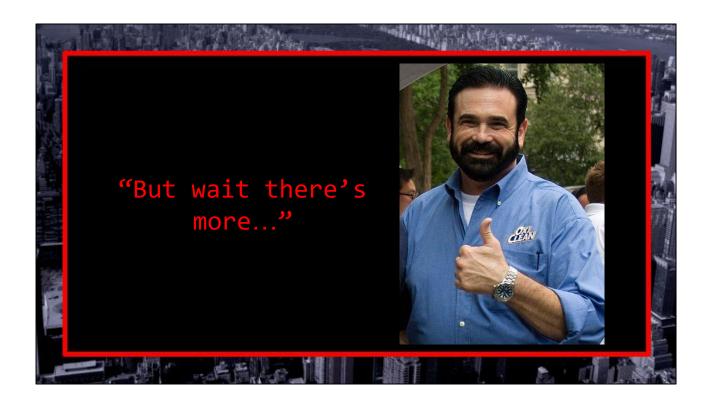
That leads us to.



Lesson: Sometimes the give is more take

- 1. We instinctively seek fairness and balance
- 2. We like when people give us something
- 3. This makes us want to give back to remain balanced

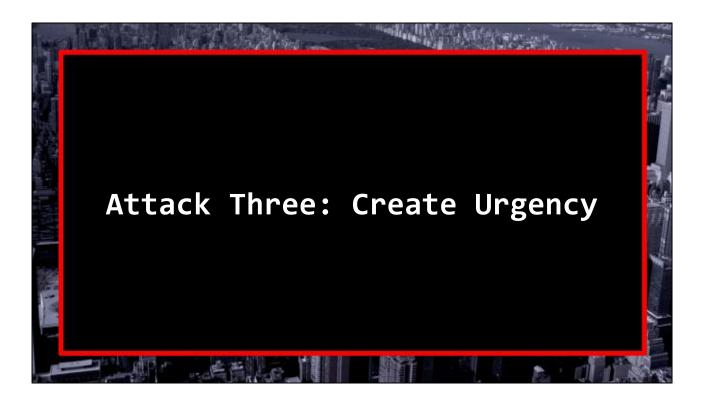
However, we are bad at judging the real balance of the situation.



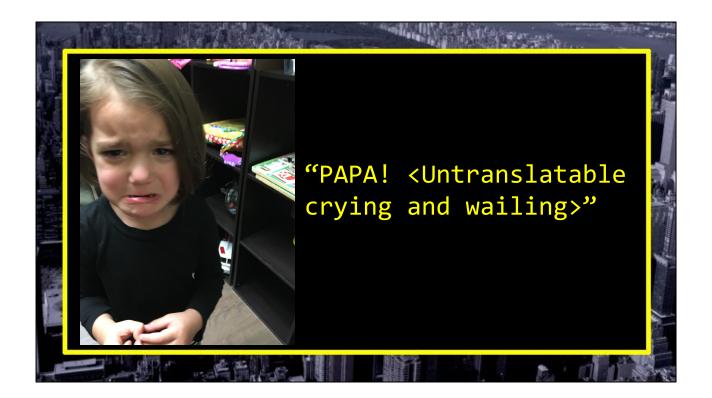
Real World Example: "But wait there's more..."

- 1. The opening: Give something unexpected to the target
- 2. Reinforce: "You won't find a deal this good!"
- 3. The ask: "Can you really pass up such a great offer!"

Image Credit/Copyright: https://commons.wikimedia.org/wiki/File:Billy Mays Portrait Cropped.jpg/ (Creative Commons)

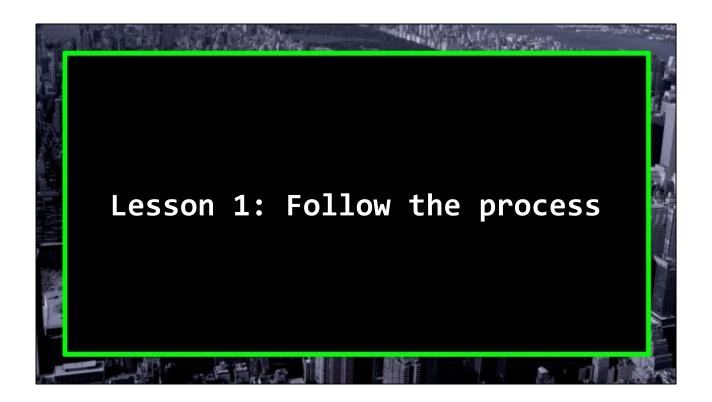


Like all good attackers Lena continued to improve her tactics to keep me on my toes. Our last example today shows how urgency is the lynchpin in a good attack.



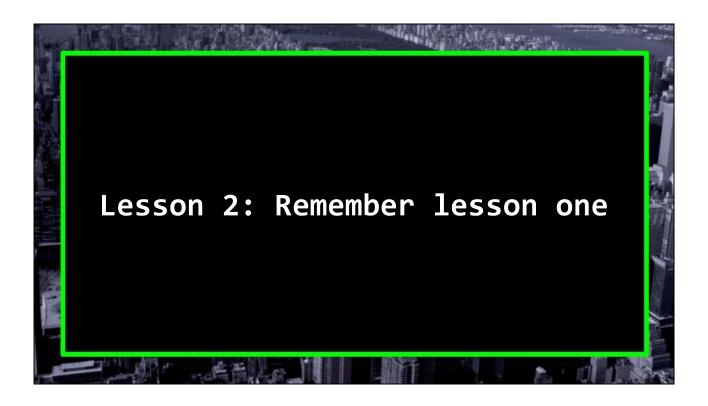
Lena Example: "PAPA! <Untranslatable crying and wailing>"

- 1. Force the parent into immediate action
- 2. Comfort the parent: "It's OK, Papa."
- 3. Reinforce: "You can get it for me. Please."

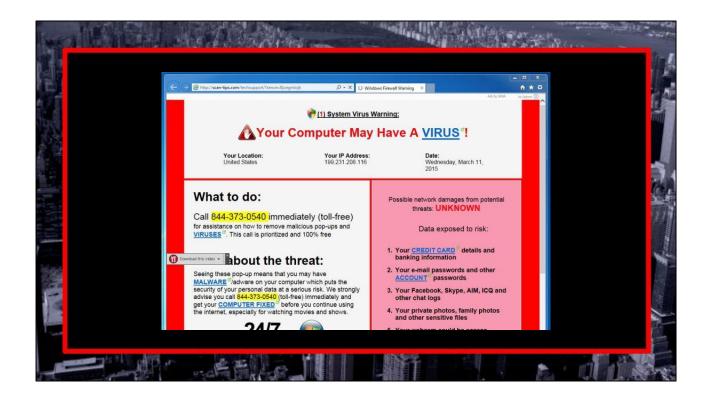


Lesson: Follow the process.

- 1. Develop a process.
- 2. Train in using the process.
- 3. Always follow the process.



Lesson: Always follow the process.



Real World Example: Flashing popup that your computer is infected.

- 1. Force the target into immediate action
- 2. Comfort the target: "We detected and can fix the issue."
- 3. Reinforce: "Click here to fix the problem now."

Image Credit/Copyright: https://malwaretips.com/blogs/remove-windows-firewall-warning-scam/ (Same)



That phrase is the secret to this program, and the weakness of many of our modern training programs.

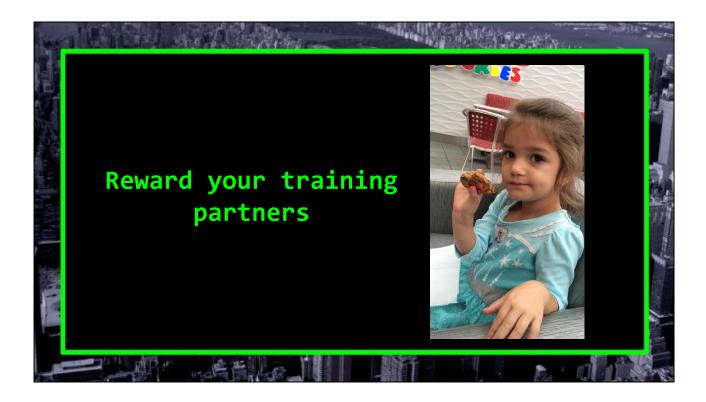
I can read the techniques for passing the guard position. I can watch videos all day. However, the only way I learn it is to practice and train to pass the guard against real people.

Manipulation and Social Engineering are the same thing. We have to train against real people in real situations to improve ourselves and others.

- 1. Create a low risk environment.
- 2. Mimic the actual attacks.
- 3. Cultivate your awareness.

The good news is you will get better, but you have to increase the training difficulty. (Natural advantage in having a small child...they grow up and get better so I have to stay good)

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Reward your training partners.

This applies to friends, small children, and pets. It encourages them to continue trying and improving their tactics which makes you better.

Marketing and advertising people don't need any more encouragement.



Remember what you are training for, and what you are up against.

The pressure is constant.

You are being testing every moment that you are awake (especially in Vegas).

The good news is we are hackers. We build our own tools and adapt quickly.

- 1. Constant pressure.
- 2. Well funded and researched.
- 3. Subtle in many cases.

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