Workbook II: Understanding Cognitive Distortions & Imposter Fears

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This workbook is intended to accompany
Becoming A Resilient Scientist Series II: Understanding Cognitive Distortions & Imposter Fears.

It is most effective when it is used after attending/watching the workshop lecture. The exercises in this workbook are to help you process and solidify what you’ve learned in the lecture and to provide you with additional resources. Although it is encouraged that you complete the exercises, it is not required.
To become resilient, we have to understand our **distorted self-talk**.

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Our **thoughts** impact our **feelings**, and thus **affect our behavioral reactions**.¹

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¹https://beckinstitute.org/cognitive-model/
Often, when we are stressed, our perceptions become distorted and dysfunctional.

Adversity and false stories we tell ourselves can lead to a change in our beliefs.

Our beliefs may cause us to suffer from negative behavioral consequences.

But if we learn to dispute the falsehoods we tell ourselves, we can learn to combat adversity, and benefit from a positive change in our consequential behavior.
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<thead>
<tr>
<th>COGNITIVE DISTORTION</th>
<th>DESCRIPTION</th>
<th>EXAMPLE</th>
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<tbody>
<tr>
<td>All-or-Nothing Thinking</td>
<td>Your performance is either perfect or it is a complete failure</td>
<td>Your lab meeting presentation went well; however, you stumbled on a question. Therefore, you view the lab meeting presentation as a failure.</td>
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<td>Catastrophizing</td>
<td>You exaggerate the implications of a set-back or mistake.</td>
<td>You forget to put your samples into the freezer and have to throw them away the next day. Therefore, your PI will never write you a recommendation letter and you will never get into grad school.</td>
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<tr>
<td>Minimizing (Discounting the Positive)</td>
<td>You downplay the importance of your accomplishments, positive qualities, or positive experiences.</td>
<td>Your PI congratulates you on receiving a travel award to go to a conference. You tell her everyone probably got one.</td>
</tr>
<tr>
<td>Jumping to Conclusions (Mind-Reading/Fortune-Telling)</td>
<td>You make assumptions about what someone else is thinking or you anticipate that things will turn out badly, convince yourself that they will, and act accordingly.</td>
<td>Your PI is grumpy and ignoring you today; you assume it’s due to you taking so long yesterday to set up your experiment and buffers. You’re sure you won’t get the scholarship your mentor suggests you apply for, so you don’t work very hard on the application.</td>
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<td>Emotional Reasoning</td>
<td>You assume that your emotions reflect reality, and reason or draw conclusions form how you feel.</td>
<td>You made a terrible mistake today and feel stupid; You then tell yourself (and others) “I am an idiot”. You feel like you don’t belong and tell yourself “I don’t belong”.</td>
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<tr>
<td>Overgeneralization</td>
<td>You view a <strong>single</strong> negative event as a predictable pattern for the future.</td>
<td>Because you struggled on your first journal club presentation you assume you will always struggle in journal club. You also assume you will not do well in other areas of your internship.</td>
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<td>Personalization</td>
<td>You <strong>blame yourself</strong> for something you are not entirely (or at all) responsible for.</td>
<td>Your supervisor gives you brief instructions on how to analyze data for a morning meeting. He forgets to point out one critical step, and you don’t analyze the data correctly. You take all the blame for what happened and feel bad about yourself.</td>
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<tr>
<td>Should Statements</td>
<td>You criticize yourself using rigid <strong>fixed language</strong> that does not accurately reflect the nuances of a situation. (Should, must, ought)</td>
<td>You tell yourself ‘I am a grad student, so I should know how to read a paper; or I am a postdoc, so I ought to be able to figure this technique out on my own. This only serves to make you feel bad about yourself.</td>
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<td>Mental Filter</td>
<td>You pick out a <strong>single</strong> negative detail and dwell on it.</td>
<td>You enjoy your research and get along with your lab group, but you had a poor interaction with your mentor. When you think or talk about your time in the lab, you focus on this one negative experience, ignoring all of your positive experiences.</td>
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<td>Labeling</td>
<td>Form of generalization: <strong>Assigning</strong> a person’s action to their disposition rather than looking the situation.</td>
<td>When your lab mate snaps at you, you tell yourself it is because he is a jerk rather than realizing that he was in a hurry and possibly under stress.</td>
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ENCOUNTERING ANTs

When you are having **automatic negative thoughts**, write them down. Write whatever comes to mind, try not to filter.

Look back and see what you wrote. What **stories** are you telling yourself?

Identify the cognitive distortions in your negative thoughts.

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________________________________________
EXPLORING IMPOSTER FEARS

Similar to cognitive distortions, **imposters fears** (also called imposter syndrome or imposter phenomenon) lead to a feeling that you **don’t belong** and make you feel like:

- You are a fraud
- Your success is due to luck, which leads you to discount your achievements
- You have to work hard on tasks that are easy for everyone else

In **what situations** do you experience imposter fears? How does that fear hold you back or **undermine** you?
Google **accomplished individuals** and try to find those who also suffer from **experiencing imposter fears**.

List some individuals who surprised you when acknowledging their imposter fears. Explain why it was surprising to you. Then remind yourself that **you are not alone!**

*(We started the list for you!)*

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<thead>
<tr>
<th>Individual</th>
<th>Why it’s surprising</th>
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<tr>
<td>Maya Angelou</td>
<td>Poet, novelist, and civil rights activist. She was awarded <strong>National Medal of Arts</strong> and the <strong>Presidential Medal of Freedom</strong>. She once said, ‘I have written 11 books, but each time I think, ’Uh-oh, they’re going to find out now. I’ve run a game on everybody, and they’re going to find me out.’”</td>
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<td>Serena Williams</td>
<td>Serena is the former <strong>number one</strong> tennis player in the world.</td>
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<td>Howard Schultz</td>
<td>Schultz was the <strong>CEO</strong> of the largest coffee-house chain in the world (Starbucks) and is estimated to be worth $4.3 billion dollars.</td>
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DEALING WITH COGNITIVE DISTORTIONS & IMPOSTER FEARS

REMEMBER HATS

H – Hear your negative self-talk

A – Appreciate that you have a choice

T – Talk to yourself compassionately

S – Seek help and access resources
H – Hear your negative self-talk
Write down your negative thoughts and identify the distortions so you can work on tackling it (You practiced this on page 5).

A – Appreciate that you have a choice and fact-check it
Think of this as a pros/cons list. Create two columns, support and against, and list your evidence for the thoughts you are having (You forgot to put your sample in the freezer. Can you redo the experiment? Can the experiment still be successful?).

The event and type of negative self-talk or distortion:

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<th>Evidence in support</th>
<th>Evidence against</th>
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**HATS EXERCISES**

**T – Talk back like a realistic giraffe**

Instead of harsh self-talk, talk to yourself in a compassionate way as you would talk to a friend (How would you talk to your friend who forgot to put their sample in the freezer? What would you say to a friend when they are down and engaged in cognitive distortion?).

What you would say to your friend:

________________________________________________________________________________________

Now give yourself the same kind of compassion. What can you tell yourself now?

________________________________________________________________________________________

**S – Seek help and access resources**

Look for resources on your campus that can help

Resources available on my campus:

________________________________________________________________________________________

________________________________________________________________________________________

________________________________________________________________________________________

Seek help and find a therapist: [https://www.psychologytoday.com/us/therapists](https://www.psychologytoday.com/us/therapists)
GROWTH MINDSET EXERCISE

DEALING WITH COGNITIVE DISTORTIONS & IMPOSTER FEARS

Growth mindset can help you **overcome** cognitive distortions & imposter fears.

Rewrite these fixed mindset thoughts using growth mindset language.

"I give up! I tried three times to get this abstract written and it's still no good."

"I'm feeling down and my experiment probably won't work, so I'll just check out during lab today."

"Her poster is so much better than mine; mine will never look that good."

"I'm not a good public speaker – I don’t want to do this presentation."

"I'm really good at using PowerPoint."

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Growth mindset can help you **overcome** cognitive distortions & imposter fears.

Rewrite these fixed mindset thoughts using growth mindset language.

"Lab math is just too hard."

"I won’t raise my hand and ask because my question is probably a bad one anyway."

"I'm SO stupid for making that mistake."

"I won’t know what to ask during the informational interview – I'll probably say something foolish."

"I just lose my temper sometimes, sorry."
What distortions drive the stories you tell yourself – at school and at home? Are you more of a jackal, a giraffe, or an ostrich?

Why do you think that is, and what shifts would you like to explore for yourself?

What will you do moving forward to change your unhelpful self-talk?
HELPFUL PUBLICATIONS & WEBSITES

Cognitive Distortions

Imposter syndrome

Growth Mindset

When it matters and how to know if it matters or not
https://www.mindsetkit.org/