From Theory to Practice: Transformative Creativity in Education

Sareh Karami, PhD

Mississippi State University



Creativity

Positive Creativity

Transformational Creativity

Key Skills

Activities

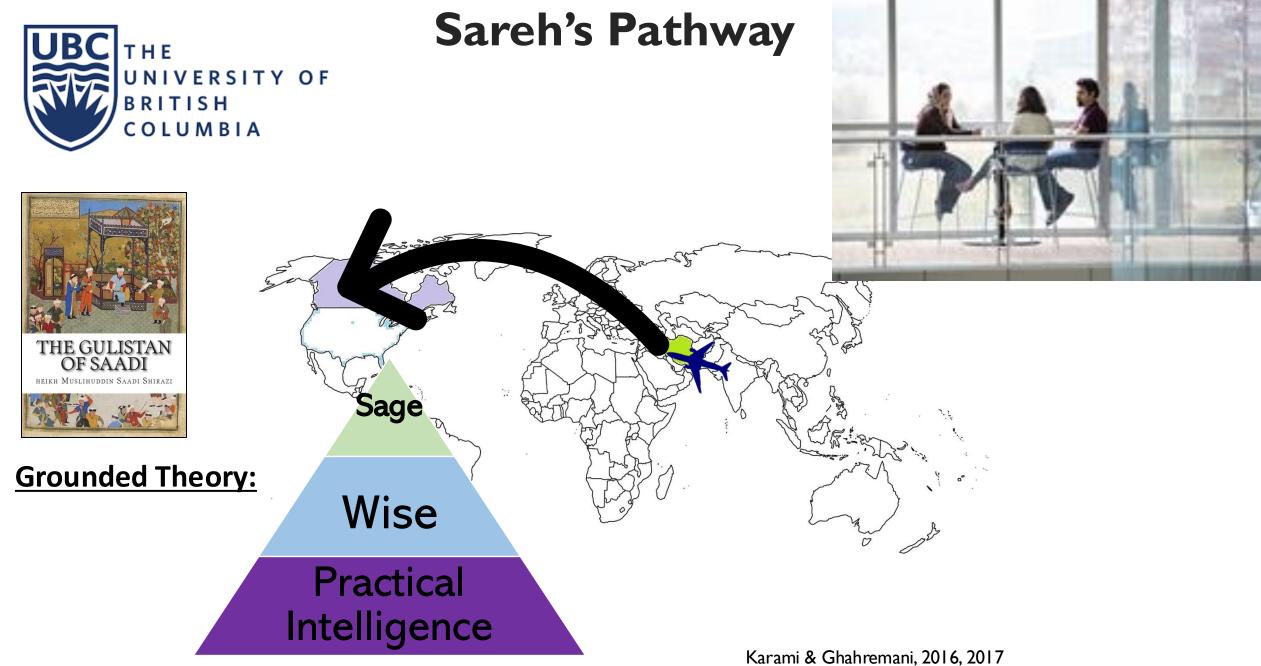
Sareh's Pathway



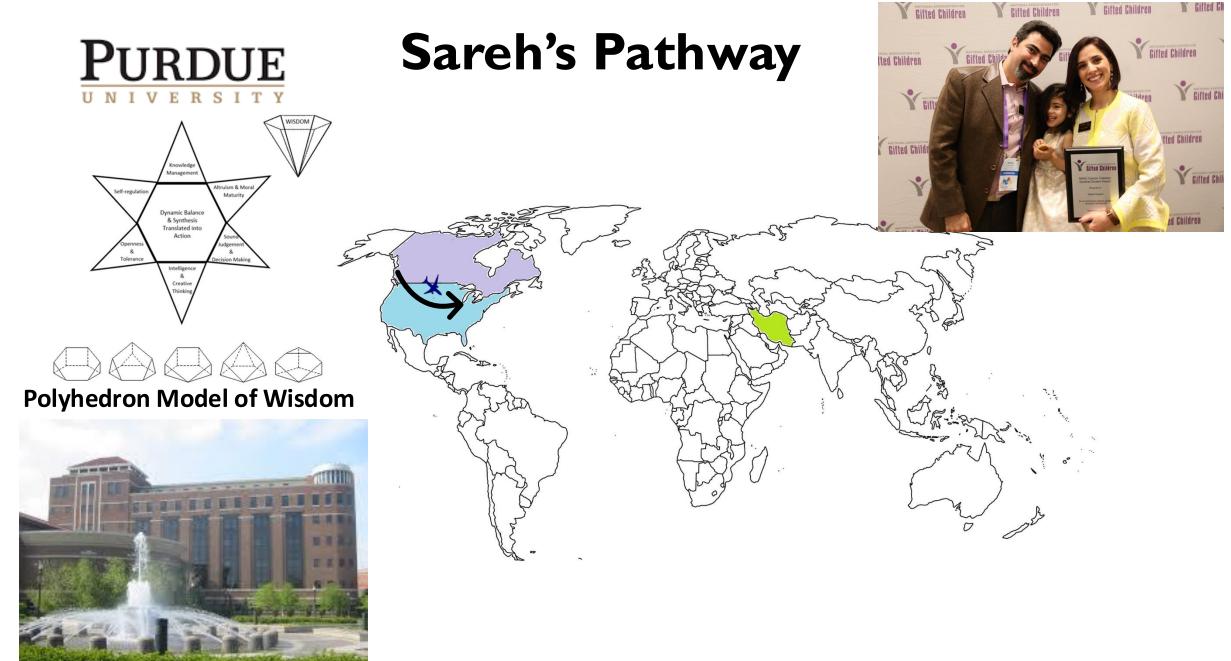




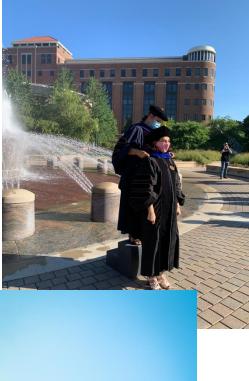
- I got my Masters in Clinical Psychology.
- I worked in the National Organization for Exceptional Talents.



Iranian Hierarchical Wisdom Model



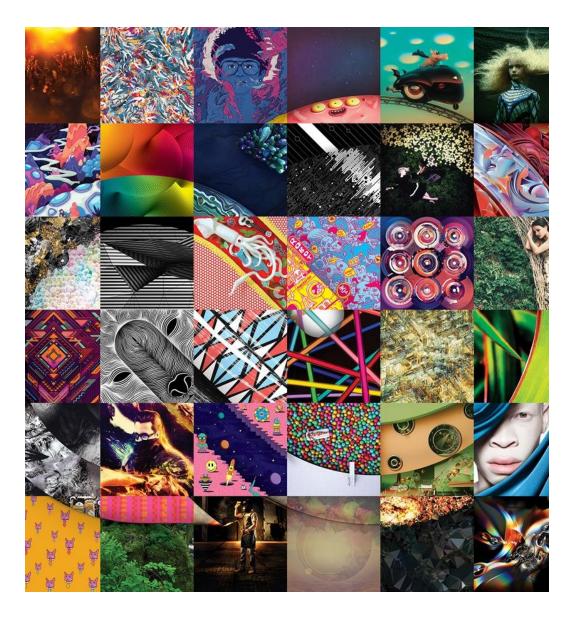


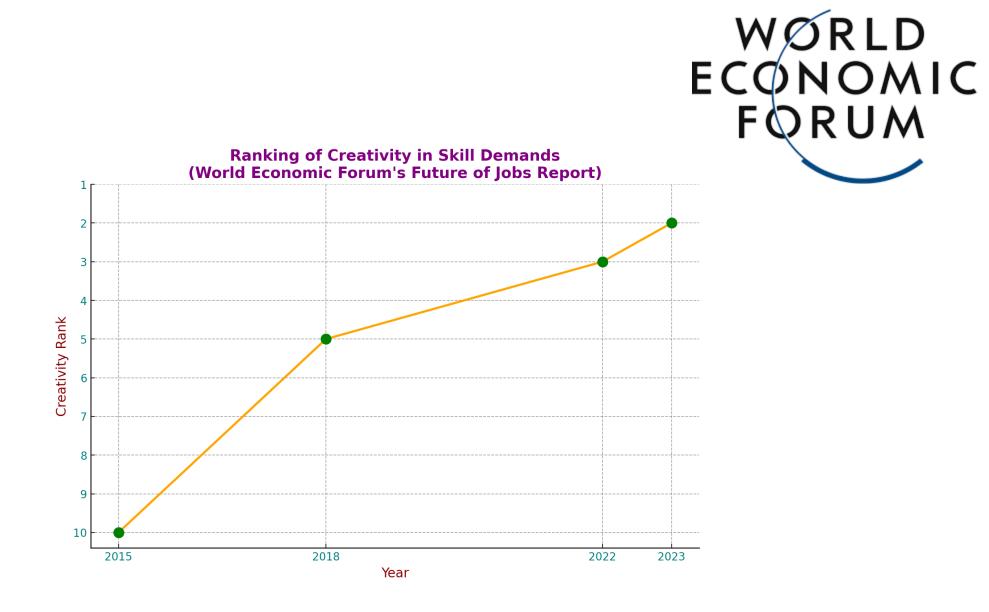




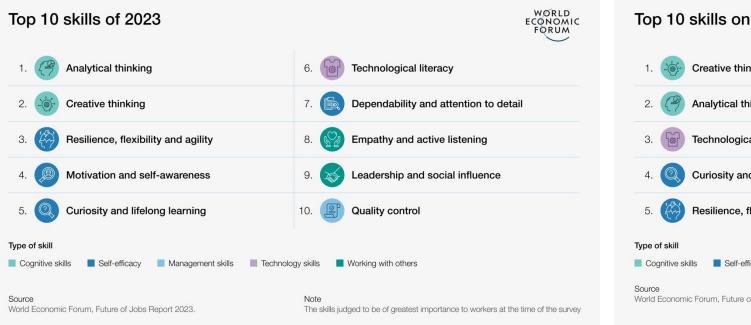
Renaissance of Global Creativity

• Creativity and innovation have become an essential agenda in public policy and education in many countries.













The world is changing faster than ever before.

Socially Economically Politically





THE ART OF APPRECIATION

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Part scary, part exciting: How artists are using AI in their work

Generative Al can create images from written promote which the act world has had

 Generative AI can create images from written prompts, which the art world has had a mixed response to, according to artists and gallerists CNBC spoke to.

THE ART OF APPRECIATION

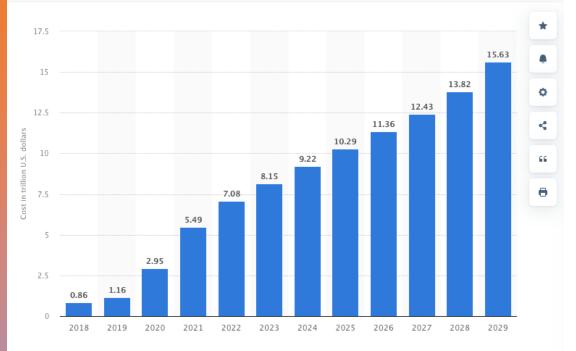




Technologically

There is a dark side of creativity, too

- There can be no doubt that creativity has led to beneficial advances.
- We should invest in promoting Creativity.
- However, not all creativity is oriented toward positive goal.





- The global losses from cybercrime topped \$9 trillion in 2024.
- To Cost The World \$15.5 Trillion Annually By 2029
- Cybersecurity budgeting has become a high priority for most countries



- People who become involved in generating negative creativity are not necessarily monsters of evil.
- We are likely to have engaged in negative creativity ourselves at some point.

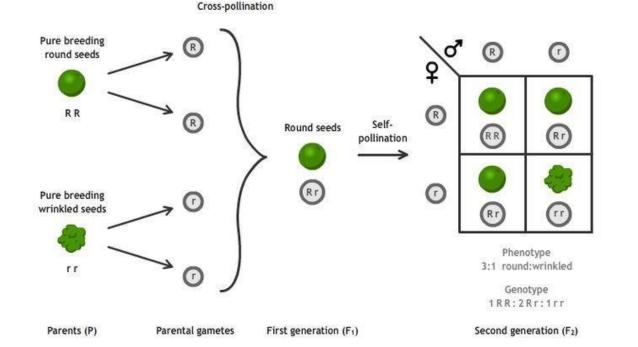
- What should we do?
- Should we stop promoting Creativity?



- Creative people challenge existing ways of seeing and understanding the world.
- Creative people doubt, question, and even change the social norms and rules that are not working.



Mendel's work on genetic inheritance (1822-1884)



 Even though Mendel attempted on many occasions to contact renowned scientists, they struggled to understand him and his theories

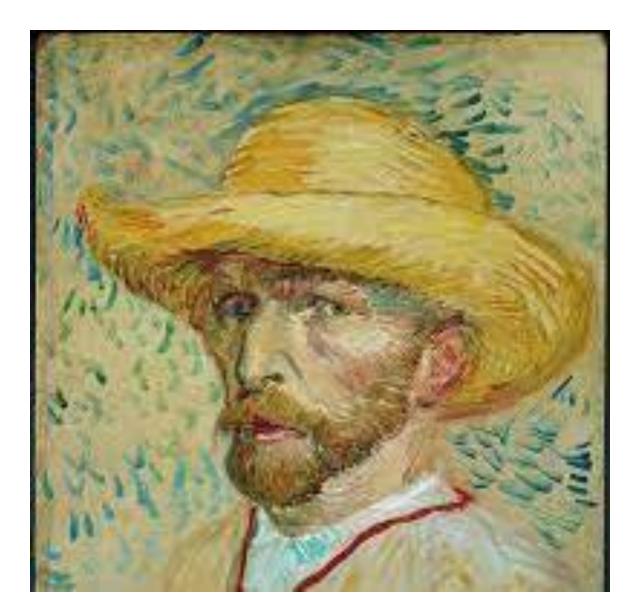


Ignaz Semmelweis(1818-1865)

- The death numbers could be lowered by surgeons washing their hands between patients
- he was disregarded and accused of calling them dirty. After years of trying, he finally gave up and ended his days in an insane asylum.

Examples Examples in Arts

- Claude Monet
- Vincent Van Gogh
- Johannes Vermeer



Positive Creativity is

The generation of ideas and products that are:

- novel,
- useful or effective

In a given context (time and culture)

That also serves a constructive function





Constructive for whom?

These algorithms are **original and effective** in achieving the goal of maximizing the time users spend on the platform.

They may be **positively** creative from a business standpoint because they contribute to the company's profitability by attracting advertisers and boosting revenue.

However, they might promote misinformation and polarization as it doesn't discern the accuracy of the information.



Constructive for How Long?

- Short-Term Positive Effect: Plastic was introduced as a versatile, cheap, and durable material that transformed industries from packaging to healthcare.
- Long-Term Negative Effects: Plastic waste has become a significant environmental issue over time. In 2024, the world is expected to produce 220 million tons of plastic waste, a 7.11% increase from 2021.

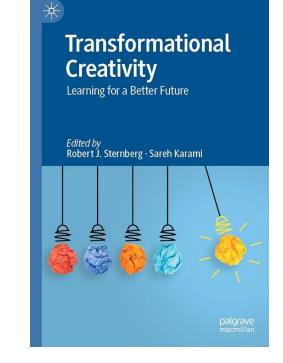
Transformational Creativity is

The generation of ideas and products that are:

- novel,
- useful or effective

In a given context (time and culture)

• that make the world a better place over the long- as well as the short-term.





• A Transformational individual seeks to make positive, meaningful, creative changes for common good.





• A Transactional Creative individual is expected to perform in a creative way in exchange for being identified or employed.





Creativity with Wisdom

- People who are Transformationally creative are often also transactionally creative.
- BUT
- They go beyond transaction—they use their creativity to affect positive change that seeks a common good.





What is the common good?

• No one can make such a judgment entirely free from sociocultural influences and potential bias.



Challenging Questions

- Who benefits from a course of action, and how great are the benefits?
- Who loses from a course of action, and how great are the losses?
- Who is unaffected by a course of action?
- What is an optimally fair and just assessment of the relative costs and benefits?





But we can Try!

- The world's first 100% transparent fashion label.
- Bruno Pieters' initiative has been widely praised for its innovative approach to ethical fashion.
- Honest By shows the origin of materials, their price, who made the product and how much money is made by each person along the supply chain





pioneer in marine science

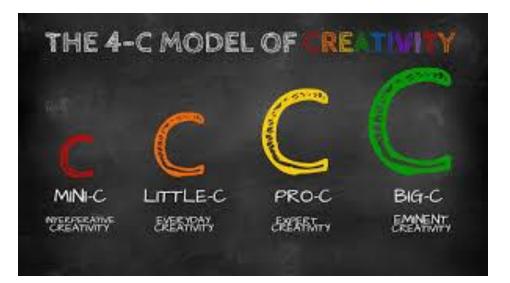


Flanders Marine Institute (VLIZ)

Based in Ostend, VLIZ supports marine scientific research and promotes knowledge about oceans and coasts.

4-C's

- Mini-c: personally meaningful acts
- Little-c: everyday acts that others appreciate
- Pro-c: professional expertise that impacts a field
- Big-C: legendary genius that lasts for generations



4-C and Transformational Creativity

Mini-C Creativity: engaging in one of our dialy creative practices to help improve your wellbeing, empathy, self-regulation etc.

Little-C Creativity: a teenager who starts a small community project to address local environmental issues, such as organizing neighborhood clean-ups.

Pro-C Creativity: At this level, an example could be a teacher who develops an innovative curriculum that significantly improves literacy rates among underprivileged students.



Mini-c

• Mini-c creativity refers to subjective self-discoveries—the new and personally meaningful insights that are part of the learning process. A person may initially be mini-c and then grow with feedback to become little-c (in which others recognize his or her creativity).

Transformational Mini-c

Engaging in one of our dialy creative practices to help improve your wellbeing, empathy, self-regulation etc.

Example:

Journaling with a Twist: "Perspective Shifting"

Set aside 10-15 minutes daily to write about a recent interaction or event.

First, describe your perspective and feelings about the situation.

Then, imagine the perspective of someone else involved (e.g., a friend, colleague, or stranger).

Write about how they might have experienced it, their thoughts, and emotions.

Finally, reflect on what you've learned from seeing the situation through their eyes.

Transformational Little-C

• A teenager who starts a small community project to address local environmental issues, such as organizing neighborhood clean-ups.



Eneco Clean Beach Cup

This annual event unites volunteers, including surfers and supporters, to clean the Belgian coastline. In 2019, participants collected 11.5 tons of beach debris along 76.5 km of shoreline.

Transformational Little-C

A teacher who develops an innovative curriculum that significantly improves literacy rates among underprivileged students.

Transformational Pro-C

• If that teacher influences a larger number of students and their impact extends beyond the boundaries of their school.

Ontmoet onze experten



Tania Gevaert Coördinator | Psychotherapeut IHP | ECHA Spec. in Gifted Education | Facilitator Peers4Parents | Loopbaanbegeleider



Dr. Ophélie Desmet Ph.D in Educational Psychology, major Giftedness, Creativity and Talent. Minor Psychological statistics and qualitative research methods | Pedagogisch adviseur



• Steunpunt Onderpresteren is a non-profit organization founded in 2017, dedicated to being a resource and knowledge center for underperforming children and young people, their parents, and teachers.

How do we decide if something is Transformational?





balancing one's own, others', and larger interests;

over the long term as well as the short term;

Sternberg, 2001

We should simultaneously foster creativity and wisdom.



Creativity Trainings

Research on fostering creativity in general indicates numerous effective strategies.

e.g., Torrance (1976), Rose and Lin (1984; effect size=0.468), Scott et al. (2004a; effect size=0.68), and Swanson and Hoskyn (1998; effect size=0.70); Scott et al. (2004b; effect size=0.78); and Ma (2006; effect size=0.77).



Research on Transformational Creativity

- Research on Transformational Creativity is limited, as it is a relatively new area of study
- We investigated Creativity Trainings to see if they also promote Wisdom (Balancing interests, Short/Long Term)

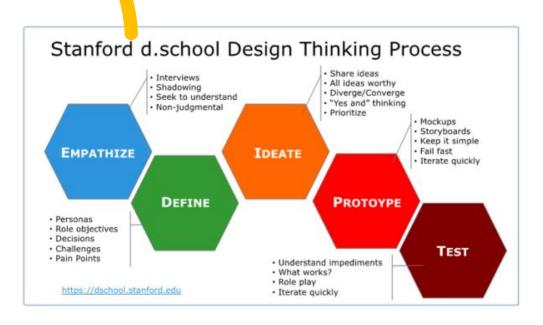


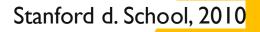
Karami, 2023; Karami et al, In Press

It is a good example of Positive Creativity

 Design thinking was the only training we found that included some aspect of balancing interests.

• Empathy is a "deep understanding of the problems and realities of the people you are designing for." (1)





Transformational Creativity Goes Beyond Empathy

 Transformational creativity isn't just beneficial for one person or group; it aims to benefit all people, the planet, and even non-human life (As Much As Possible).









Identify Key-Skills

- Have Positive effects on Creativity
- Have Positive effects on Wisdom
- Promote Balancing Interests (Including outer groups)
- Promote Evaluation of Short-term, Longterm Consequences

To identify the key skills, we drew from research on:

- Creativity and Problem-solving
- Wisdom (Especially PWM & Balance Theory)
- Moral Decision Making



Imaginarium Creativity Center;Karami et al, 2020; Sternberg, 2001

Along with promoting Creativity, we can Promote

- Perspective Taking and Getting (Especially for Balancing Interests)
- Counterfactual Imagination (Especially for Understanding Short-term and long-term consequences)

and

• Sense of Agency

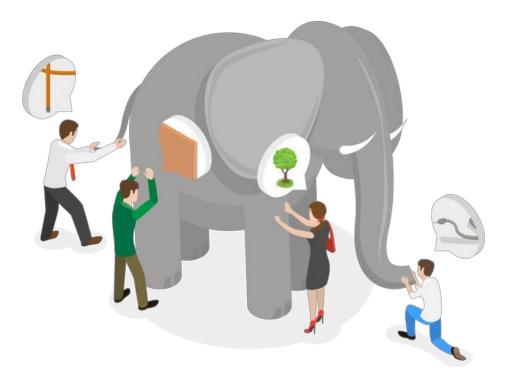
What is Perspective Taking

It is the ability to understand how a situation appears to another person and how that person reacts cognitively and emotionally to that situation (1)

It has been shown to promote a range of positive outcomes, including (2)

- improving interpersonal and intergroup relations,
- reducing bias and prejudice
- blurring harmful perceptions of group boundaries
- increases pro-environmental attitudes and commitment to helping the environment

I: Batson et al. 1997; Batson 2012; Coplan 2011 2: Berenguer ,2007, 2010 Todd and Galinsky 2014; Gutsell et al. 2020; Simonovits et al. 2018; Gehlbach et al. 20 Galinsky and Moskowitz 2000; Myers et al. 2014 **However,** we should avoid believing that our earnest efforts in this regard will provide an accurate or complete understanding of others' perspectives

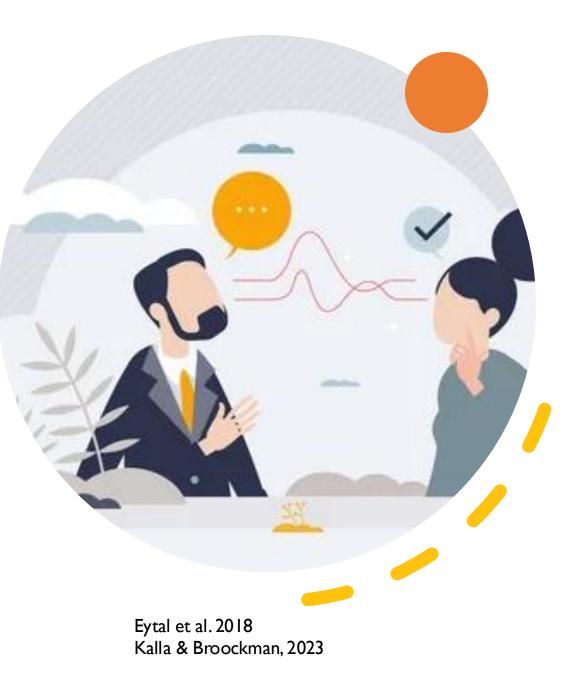


Eyal, 2010; Tarrant, 2012

Perspective Getting

WHEN POSSIBLE, we should get their perspective by carefully listening to them explain their perspective, not simply imagining in our biased mind what that perspective could be.

- Builds accurate understanding, avoiding assumptions, and increasing empathy and connection. (1)
- Reduces negative attitudes and exclusion, with long-lasting positive effects. (2)



Balancing Interests Through Perspective-Taking

We gain an understanding of others' Thoughts, Feelings, and Viewpoints We gain insight into their needs and concerns. We might make decisions that take everyone's interests into account.

Perspective Taking and Creativity

- Perspective-taking can directly enhance creativity by providing access to new ideas and increasing the usefulness of ideas (I)
- Perspective-taking and creativity may have overlapping neural bases (2)

Saxe et al., 2006; Takeuchi et al., 2014

(2)



Doron, 2017, Han et al., 2017, Hoever et al., 2012, Mohrman et al. 2001, Galinsky et al., 2008, Grant and Berry, 2011, Wang et al., 2017,

Counterfactual Thinking

 Most researchers Define Counterfactual thinking as mental representations of alternatives to past events, actions, or states.



Counterfactual Imagination

We define counterfactual imagination as embracing all thoughts about alternatives to the here and now, including, for example, thinking about the future and pretend or fictional worlds.



Amsel & Smalley, 2000; Chylińska, 2017; Edgington, 2011; Gopnik, 2009; Harris, 2000; Woodward, 2011;



• A Tricky Relationship Between Counterfactual Thinking and Creativity.

Additive and Subtractive Counterfactual





An additive counterfactual is when a new element gets added to the situation (e.g. "If only I had an umbrella, I wouldn't have gotten wet"), A subtractive counterfactual is when an element gets subtracted from the situation (e.g. "If only it hadn't rained today, I would not have gotten wet").

Counterfactual (Additive) Boosts Creativity

- Additive counterfactual scenarios have been found to result in higher creativity.
- We should encourage people to build their 'what if' stories by **adding new** possibilities to the original event.
- "What if another advanced species existed?"

"What if there were no gravity?"





"What if there were no gravity?"

"What if we had million dollars to spend on the solution?"

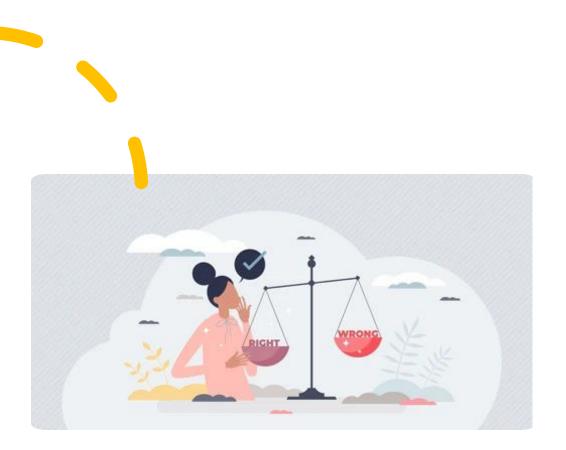


Counterfactual Imagination and Creativity

- Counterfactual thinking is closely related to problem-solving abilities
- A counterfactual mindset increases performance in divergent thinking tasks
- It is already included in many Creative trainings.

Counterfactual Imagination and Moral Development

• Counterfactual thinking helps in moral development by exploring hypothetical outcomes.







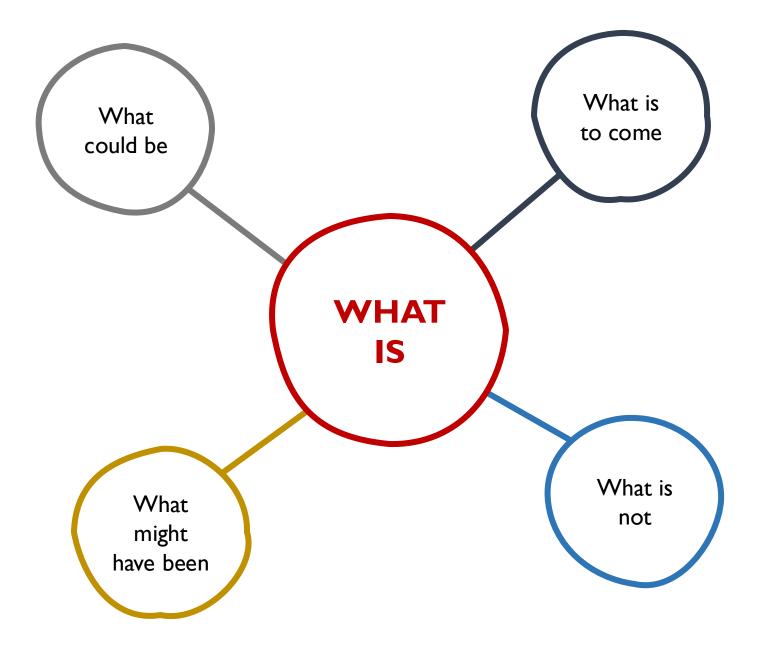
Counterfactual Imagination in Transformational Creativity

- Help assess short-term and longterm consequences of inventions and solutions.
- Encourage exploring alternative outcomes and considering potential impacts more thoroughly.
- Which is essential to Transformational Creativity training.

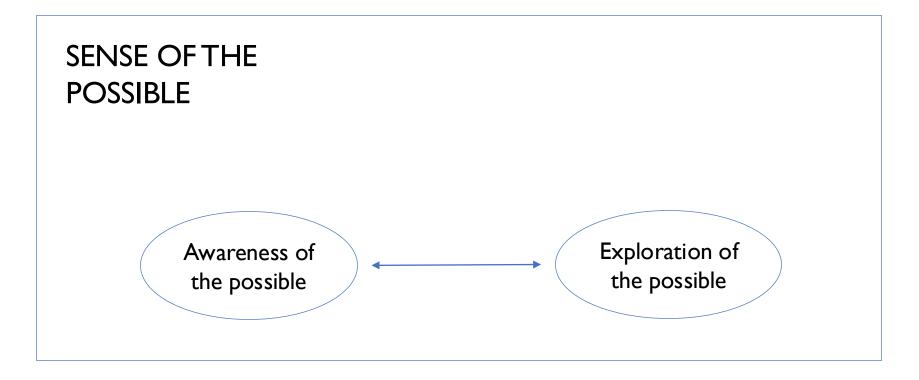
Sense of the possible

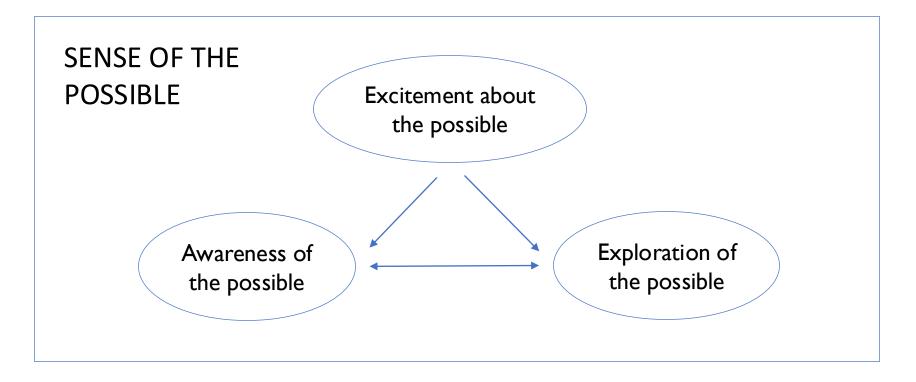
- Creative processes relate to our sense of possibility in the world
- Shaped by what we believe it is possible
- Shape what we believe to be possible
- Transformational creativity is shaped by and shapes what we believe is possible in society

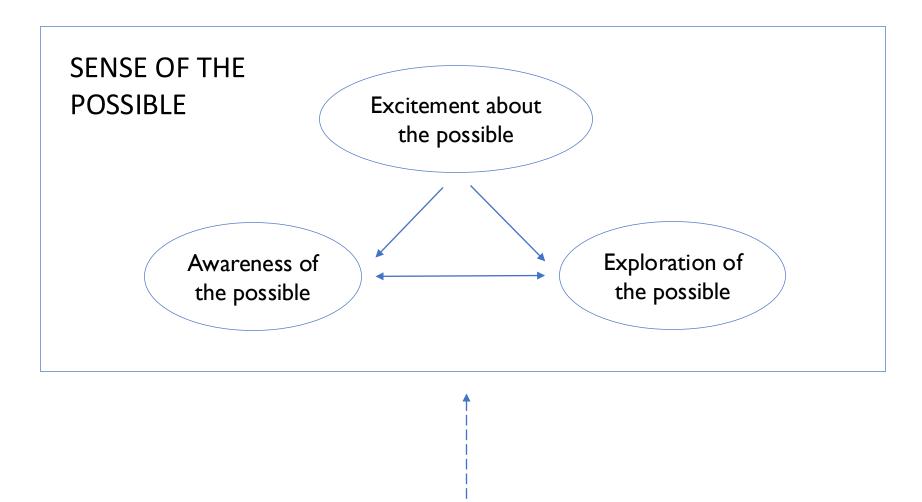




SENSE OF THE POSSIBLE

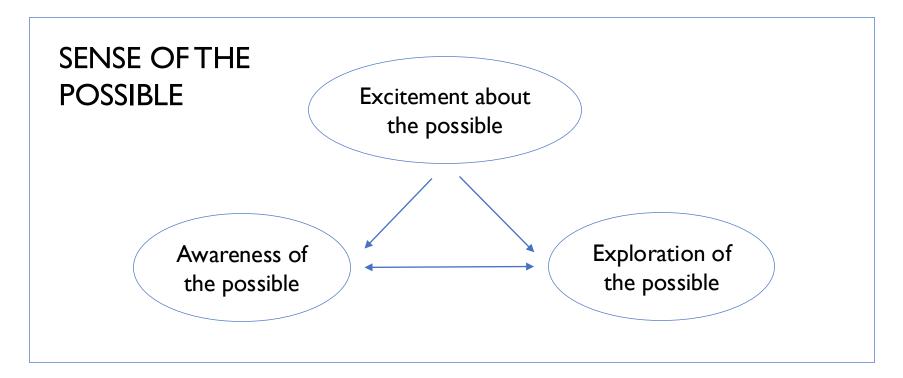






ACTION

- The big question of transformational creativity is how to turn it into action
- In other words, how to connect our sense of the possible with what we actually do







'What if I dare?'

• We need, among others, to foster a sense of agency, engagement, and responsibility



'What if I dare?'

- Sense of Agency (SoA) refers to the awareness of being the agent of our own actions.
- Empowers Individuals to Take Action
- Any act of Creativity will Build a future.

Activities to Promote Perspective Taking/Getting & Counterfactual Imagination/Thinking:

We have been investigating existing activities and also developing new activities:

- Warm-Up activities
- For Transformational Purposes



Imaginarium Creativity Center



Blind Lego

 Each person gets a set of Legos. The sets must be identical – the same color and shape. Have the two people sit back-to-back. The first person builds a structure out of Legos. Then he describes what he built to his partner, who can't see his structure (blind Lego, remember!).



















Hard Empathy

This Activity will help you practice "hard empathy" as part of your creativity journey, with a focus on counterfactual and possibility thinking. By imagining yourself in a life situation that's far removed from your own, you'll enhance your ability to envision alternative possibilities and explore new perspectives, key skills in creativity.

I. Identify a News Story:

- Start by selecting a news article or real story that portrays someone experiencing a situation you've never faced. Choose a story that involves challenges, customs, or daily experiences that feel very different from your own life.
- For example, you might find a story about a refugee family fleeing their home due to political unrest, or a person who has to work multiple jobs to support their family while pursuing an education, or a young man growing up in a restrictive environment where expressing certain personal beliefs is discouraged.

2. Imagine the Experience:

- Visualize yourself in this person's situation. What would your life look like if you had to face their challenges and live in their world? Consider how their customs, daily struggles, or living conditions would impact your thinking, choices, and lifestyle.
- Explore the counterfactual question: What if your life was completely different, and you had to live according to their circumstances?

Narrative Simulation and Case Discussions

- Helps us imagine living through real-life stories and experiences.
- Encourages reflection on others' thoughts, feelings, and behaviors.
- Provides insights into historical events and life-changing moments.
- Builds empathy and allows us to apply lessons learned to our own lives.





Choose Stories that are:

- Relatable and relevant to the participants.
- Real-life scenarios (personal or historical) can increase engagement and emotional connection.
- Highlights a difficult life decision or moral dilemma.
- Presents complex emotions and decisions that involve empathy, balancing personal and societal needs, or long-term thinking.

Example: A story of a leader faced with making a decision that benefits one group at the expense of another, highlighting the emotional conflict and the impact of that decision.

Any of the examples we discussed today.

Begin by explaining the purpose of the activity: to promote Transformational Creativity and Wisdom by reflecting on real-life situations, imagining ourselves in those moments, and discussing different perspectives.

- I. Define *wisdom* for the group, touching on elements like compassion, emotional regulation, perspective-taking, and making decisions for the common good.
- 2. Briefly introduce the concept of *narrative simulation*: how putting oneself in the shoes of another through storytelling allows for deeper emotional engagement and understanding.

Step 2: Present the Narrative Simulation (15 minutes)

• Imagining and Write: After reading the story, ask participants to silently reflect on what they might have felt, thought, and done if they were in the protagonist's position. Encourage them to consider the consequences of different choices.



Step 3: Guided Group Discussion (30 minutes)

- **I. Opening Discussion**: Divide participants into small groups. Ask them to discuss the following questions:
 - I. What were the key challenges the person faced?
 - 2. How did the person's actions reflect wisdom (or a lack of it)?
 - 3. How might different choices have impacted the outcome?
 - 4. How did the protagonist balance emotions with rational decision-making?
- **2. Share Back**: Bring the groups back together and have them share their insights. Write key points on the whiteboard or flipchart.



(Optional)Step 4: Case Discussion (20 minutes)

- **I. Present Another Case**: This case should have a different type of dilemma perhaps involving personal versus professional choices, long-term versus shortterm gain, or ethical dilemmas.
- **2. Discussion Prompts**: Use the following questions to stimulate discussion:
 - I. How does this case compare to the previous one?
 - 2. What personal biases might influence decision-making in this case?
 - 3. How can individuals cultivate wisdom to make better decisions in difficult situations?

Encourage the participants to think about the long-term effects of decisions, the importance of perspective-taking, and the emotional regulation needed to make wise decisions.

Step 5: Reflection and Application (15 minutes)

- I. Write a Reflection: Ask participants to take 5 minutes to write down one situation in their life where they had to make a difficult decision. Encourage them to reflect on whether they acted wisely and how they might apply what they learned from today's session in future decisions.
- 2. Share Back: In pairs, participants can share their personal reflections and receive feedback from their partner on how wisdom could have been applied.



Narrative simulation and case Discussion for Moral Dilemmas

Sharma and Dewangan (2017) used Case studies on the Virtue of leaders, emphasizing a single virtue per figure.

Deep honesty—James Burkey

Moral courage—Abraham Lincoln

Moral vision—Winston Churchill

Deep selflessness-Martin Luther King

Compassion and care—Oprah Winfrey

Intellectual excellence—Franklin Delano Roosevelt

Creative thinking—Herb Kelleher

Fairness—Dwight Eisenhower

Building Blocks of Impact

To explore how small, ongoing decisions accumulate to influence both short-term and long-term outcomes.

Instruction:

- **I.Scenario Setup:** Players are given a scenario where incremental choices affect outcomes (e.g., managing time, finances, or personal growth).
- **2.Decision Cards:** Each round, players draw and play **Decision Cards** representing small actions. They add these to a timeline, placing **Impact Tokens** to show cumulative effects over time.
- **3.Counterfactual Thinking:** After each round, players replace one decision with an alternative to explore different possible outcomes.
- **4. Evaluate Outcomes:** Players review their timelines and discuss the long-term impact of their choices, comparing them with other players to see how different paths shape results.



Keep Talking, and Nobody Explodes (Video Game by Steel Crate Games)

 You're alone in a room with a bomb. Your friends, the "Experts", have the manual needed to defuse it. But there's a catch: the Experts can't see the bomb, so everyone will need to talk it out – fast!

big book conflict resolution games Quick, Effective Activities to Improve

Quice, Effective Activities to Improve Communication, Trust, and Collaboration

Bring people together

- Encourage listening without judging.
- Create a culture of respect.

Mary Scannell

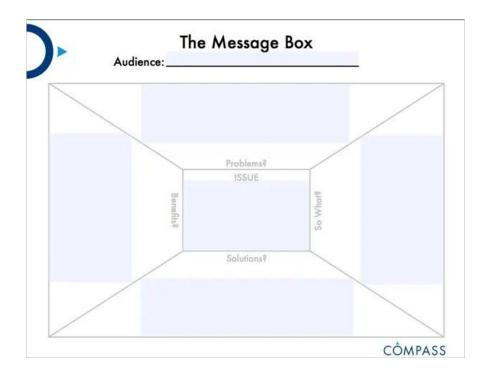
In Character

OBJECTIVES • To understand another's perspective • To experience true dialogue • To learn how to listen without judging • To develop a deeper level of trust Group Size Any Materials A list of topics displayed so everyone can see them Time 15 to 20 minutes

Procedure

Have participants pick partners and choose a topic from the topic list. Encourage participants to choose a pair of topics where they have preexisting and opposite viewpoints. One person takes one viewpoint regarding the topic; the other person takes the opposing viewpoint. For example, one person believes the toilet paper should roll over the top while the other believes the paper should roll from the bottom.

Once a topic is agreed upon and it has been decided which partner will take which side of the argument, give them their objective. Let participants know they will need to gain a thorough understanding of each other's viewpoint because eventually each partner will take on the other person's role—the role that is opposite from his or her own position. To play the other role convincingly, have participants interview each other so they can really get into character when it comes time to play the role of the



The Message Box by COMPASS

- The Message Box is a tool for communicating your work in a way that resonates with your audience and for practicing perspectivetaking.
- It helps you Craft messages for different audiences.



Reflective Journaling

- Set aside dedicated time for journaling.
- Write freely without judgment.
- Challenge your own assumptions and biases.
- Consider alternative perspectives.

Two Truths and a Twist

- How it works: In small groups, participants take turns sharing two true facts about themselves and one counterfactual "twist," a detail that could have been true if things had been different. The twist should be something plausible, such as "I almost became a chef." The group then guesses which fact is the twist and discusses how the person's life might have been different had the twist been true.
- This game encourages participants to reflect on how different choices could have impacted their lives, enhancing counterfactual thinking and helping them see the importance of decisions.



What if? Questions What would the world look like if the following scenarios would be reality?

- What if... pigs could fly?
- What if... children would be invisible?
- What if... everybody would be a spy?
- What if... cars would run on compliments?
- What if... we saw only one color: red?

Expand Your Imagination While Practicing

- Think Bigger: Don't just make small changes in your imagination explore bold, larger shifts.
- Explore Alternatives: Go beyond the usual ideas. Add new elements, travel mentally, and look beyond the obvious.
- Use Distant 'What Ifs': Instead of realistic scenarios, imagine more fantastical ones.
- Challenge the Unchangeable: Alter things that seem fixed picture unusual forms, like aliens without eyes or cacti without spines.
- Break the Rules: Experiment with bending the laws of nature to unlock new possibilities.

Fun Fact

Simply asking people to "be creative" on a task can significantly boost their creativity!

Studies show that this simple prompt leads to more innovative and original ideas.

Real-Life "What ifs?"

But you can also apply this type of question directly to your challenge.

- What if... we had a million dollars to spend on the solution?
- What if ... you would merge with your biggest competitor?
- What if ... a new startup starts offering your core product for free?

What If Moral Dilemmas

- What if you found a wallet with a lot of money and no identification?
- What if you could save a group of people by sacrificing one person?
- What if lying would protect someone you care about from getting hurt?
- What if you could take credit for a project someone else completed and receive a promotion?

This can be done in a group setting, along with group discussions

You can invite participants to think of real-life situations where similar moral choices might arise.

Practice Creating What if Questions (Group Technique)

- **I.Generate Questions**: Have each participant create a list of creative 'What if' questions in 3-5 minutes.
- 2.Write on Cards: Ask them to write each question on a separate index card.
- **3.Shuffle and Select**: Collect, shuffle, and randomly draw a card. Read it aloud for everyone.
- **4.Brainstorm Solutions**: Use the question as a springboard for creative solutions together. What would this mean for your challenge?
- **5.Make Connections**: Relate the 'What if' scenario to your current situation.
- 6.Extract Insights: Look for principles or valuable insights to build upon.

Predict the Past

You look back at something you've actually done in your life, a decision you made or an action you took. And then, you imagine that instead of making that choice, you made another one.

You can think about little daily decisions, like you just did, or bigger ones, turning points in your life, like:

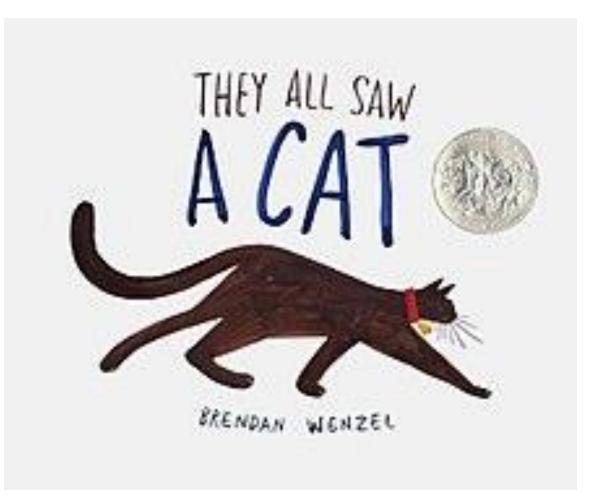
- What if I hadn't moved when I did?
- What if I had taken that job or opportunity I turned down?

Draw Your Possibility Map (by Saint Laurent & Vlad Glăveanu)

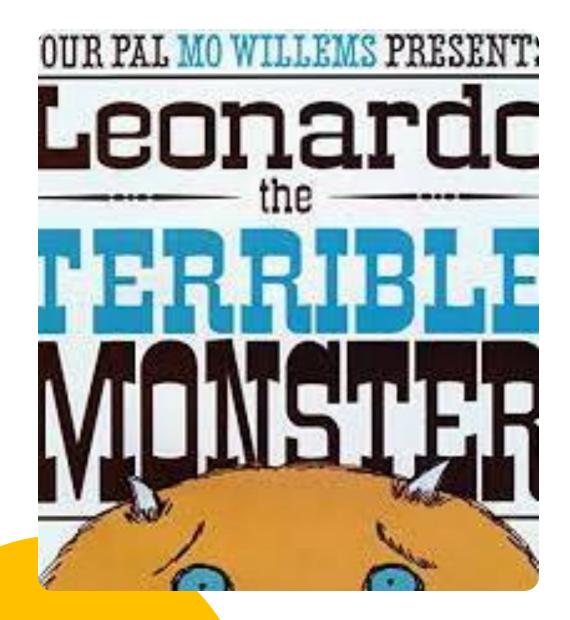
Framing	Framing The Problem: Ask yourself 'What for?'
Exploring	Exploring Constraints: Ask yourself 'What if?'
Ask	Perspective-Taking:Ask yourself 'What would someone else do?'
Debating	Debating Feasibility: Ask Yourself 'Why Not?"
Expanding	Expanding Alternatives: Ask Yourself "What Else & How Else?"



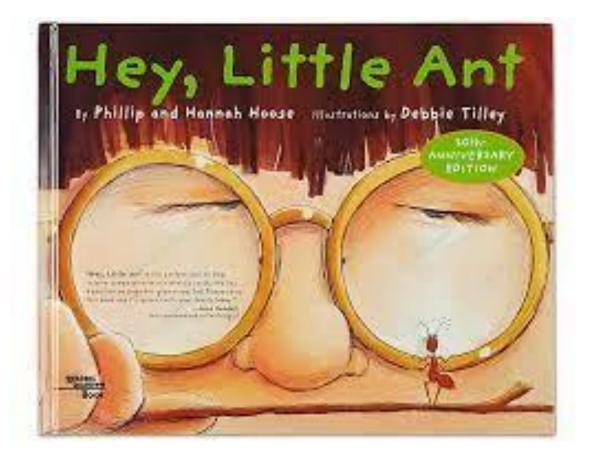




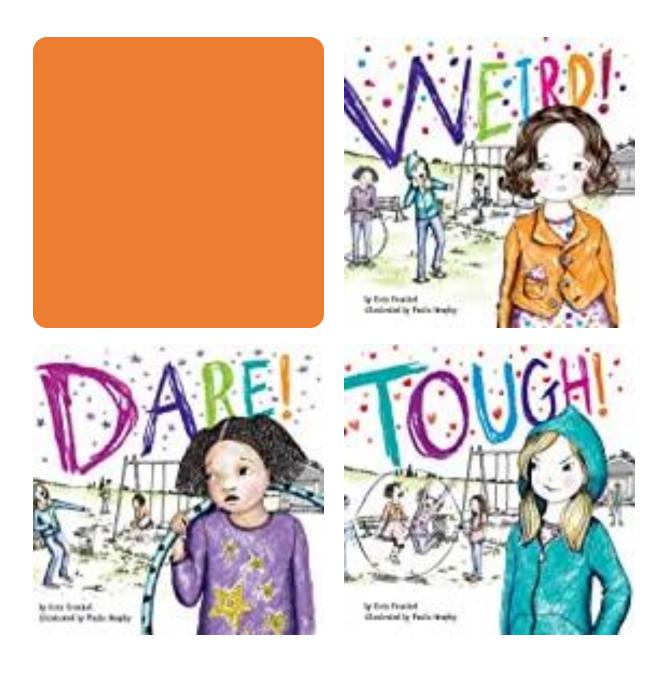
The cat walked through the world, with its whiskers, ears, and paws .



• It is a story about a monster who has trouble scaring people. Then he finally tries to scare someone named Sam. Sam cries and then tells him a sad story about why he's crying. When he heard Sam's point of view, he showed some perspective-taking skills and empathy and changed his mind. He then decided to be a wonderful friend instead of a terrible monster!



This book takes place as a conversation between a kid and an ant. The kid wants to squish the ant, but then we hear the ants perspective. The ant even asks the boy to take his point of view, when he asks, "If you were me and I were you, what would you want me to do?"



Weird (by Erin Frankel and Paula Heaphy)

- This set is a series of three books.
- from Luisa's perspective, who is the child who is being bullied. At the end of the book she decides "I guess I'll just be me from now on."
- 2. from Jayla's perspective, who is the bystander. Originally, Jayla got picked on by Sam and she didn't dare stick up for herself. Then Sam picked on a new student named Luisa. "I remember the way I felt when I was bullied. When no one dared stand up for me. I never thought I'd be the one standing by."
- 3. from the perspective of Sam, the bully. In this version we see that Sam is picked on by her older brother at home. She learns that instead of being tough, being kind is cool, and when she shows she cares about others, other people care back!



Any Questions or Suggestions

- Contact information:
- <u>Skarami@colled.msstate.edu</u>



