



Empathy is a Technical Skill

ANDREA GOULET

“Interacting is easier than ever, but true, productive, value-creating collaboration is not.”

McKinsey & Company

Source: De Smet, Aaron, Aaron Hewes, Mengwei Luo, J.R Maxwell, and Patrick Simon. “If We’re so Busy, Why Isn’t Anything Getting Done? | McKinsey.” McKinsey & Company, January 2022. <https://www.mckinsey.com/capabilities/people-and-organizational-performance/our-insights/if-were-all-so-busy-why-isnt-anything-getting-done>.



**COULD HAVE
BEEN AN EMAIL**

**NO ONE IS PAYING
ATTENTION BECAUSE WE
HAVE NO TIME TO DO OUR
ACTUAL WORK**

**WHY ARE WE
EVEN HERE?**

COLLABORATIVE INTERACTIONS

1. Making Decisions
2. Solving Problems
3. Coordinating Tasks
4. Sharing Information

**I WAS TRIPLE BOOKED
SO I'M NOT HERE, EVEN
THOUGH I SHOULD BE**

**ANOTHER
MEETING TO
SCHEDULE MORE
MEETINGS**



DON'T BLAME ME

**DEVELOPERS ARE ALL
IDIOTS**

**NO WAY AM I
SPEAKING UP**

COLLABORATIVE INTERACTIONS

1. Making Decisions
2. Solving Problems
3. Coordinating Tasks
4. Sharing Information

**WHO CARES ABOUT
YOUR FAMILY —
THERE'S A RELEASE
THIS WEEKEND**

I HATE THIS JOB



**THANKS FOR
CATCHING THAT
EDGE CASE**

**GREAT IDEA! WHAT
RESOURCES WOULD YOU
NEED TO IMPLEMENT IT?**

**THIS WAS A
PRODUCTIVE
RETROSPECTIVE**

COLLABORATIVE INTERACTIONS

1. Making Decisions
2. Solving Problems
3. Coordinating Tasks
4. Sharing Information

**LOOK HOW MUCH WE
ACCOMPLISHED THIS
SPRINT — ENJOY YOUR
WEEKEND!**

**I FEEL LIKE WE'RE
MAKING A
DIFFERENCE**

Impacts on Delivery

Enterprise Orgs who Implement SAFe

2021: 37%

2022: 53%

“Our PI planning meetings aren’t working. Software and hardware teams can’t negotiate because they are filled with resentment and just end up blaming each other.”

- Heartware Customer

Micro Moments Matter



Co-Created Collaboration Protocols



Andrea Goulet 🐶 9:22 AM

inception?



M. Scott Ford 9:28 AM

0.

What's up?



Andrea Goulet 🐶 12:00 PM

inception?



M. Scott Ford 12:01 PM

4 but close to being able to pop to 0. 5 minutes?



1



M. Scott Ford 2:27 PM

inception?

Sorry. I need to interrupt you anyway.



M. Scott Ford 8:22 AM

Inception?



M. Scott Ford 1:00 PM

Inception?

I'll check in later. 😊



M. Scott Ford 9:11 AM

I can tell that your inception level is pretty high. I'd also like to remind you that you need to eat so that you don't get hangry.



What is empathy?

“Empathy suffers from an Inigo Montoya problem...



People keep using that word, but it doesn't mean what they think it means.”

- Dr. Jamil Zaki

Director, Stanford Social Neuroscience Laboratory

Common definitions can be misleading.

empathy

noun [U]

US  /'em.pə.θi/ UK  /'em.pə.θi/



C2

the ability to share someone else's feelings or experiences by imagining what it would be like to be in that person's situation

Compare

sympathy (UNDERSTANDING)

There are technical details that matter.

IMAGINE-OTHER

(How do they feel?)

- ✓ motivates you to help
- ✓ relieves distress
- ✓ open-minded understanding

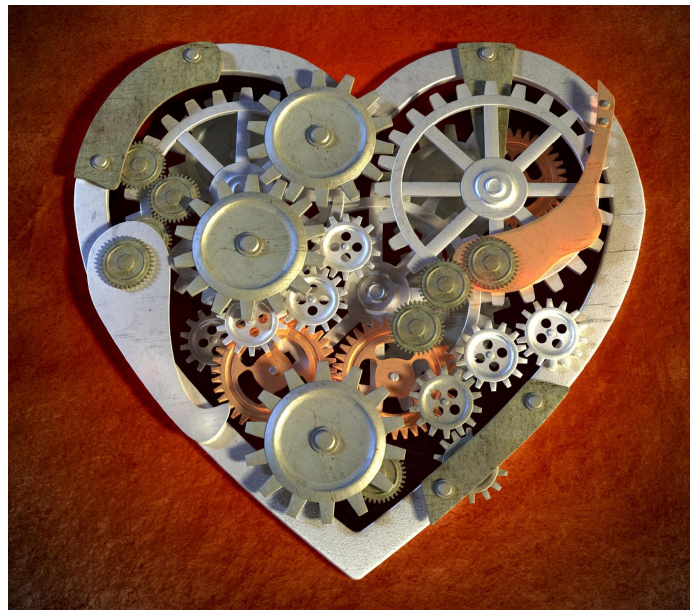
IMAGINE-SELF

(How would I feel?)

- ✗ motivates you to help yourself
- ✗ induces distress
- ✗ projection of your feelings

What Do We Mean by “Technical”?

- Honed Technique
- Situational Awareness
- Understand Mechanisms
- Deep & Nuanced Knowledge
- Develop Specific Methods
- Execute Consistently & Effectively
- Operate Professionally & Ethically



Colloquial empathy informed by cultural stereotypes & older research methods.



- inherited trait
- “mind reading”
- automatic
- involuntary
- micro-expressions
- self/other merging
- visual experience
- fixed capacity
- highly gendered
- highly accurate

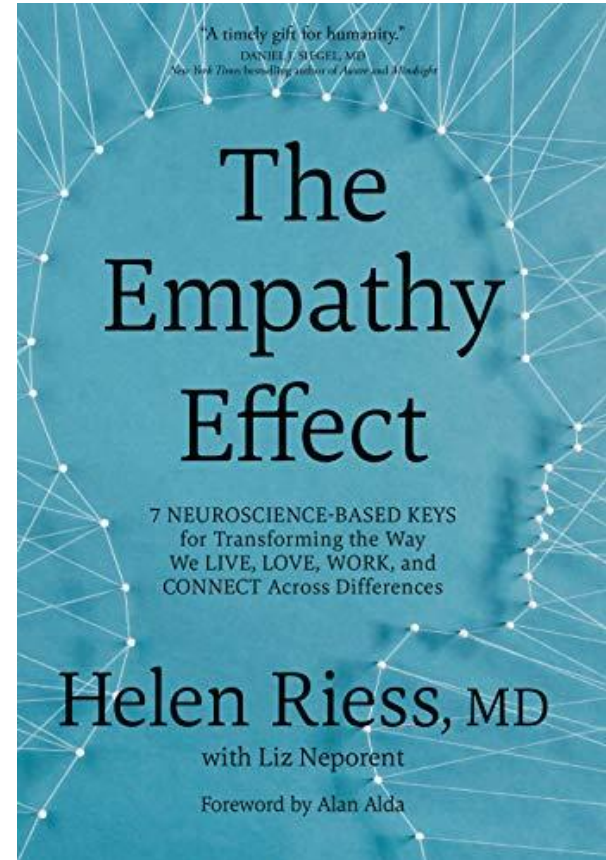
Modern research is challenging our colloquial understanding.

- motivated construct
- multi-dimensional
- context-specific
- varies by relationship
- set of learned skills
- no “empathy gene”
- 20-35% accuracy rates
- ability is not gender-based
- requires self-regulation
- automatic + deliberative
- can cause harm
- differences, not deficits

“Empathy is best understood as a human capacity consisting of **several different facets that work together to enable us to be moved by the plights and emotions of others.”**

Helen Riess

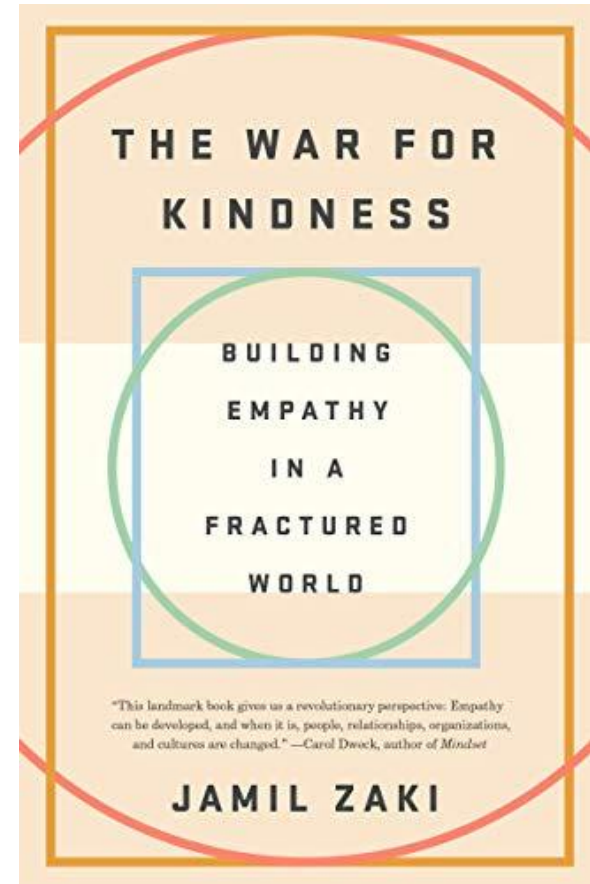
Associate Clinical Professor of Psychiatry at Harvard Medical School
Director of Empathy Research and Training in Psychotherapy
Research Group at Massachusetts General Hospital



“Most people understand empathy as more or less a feeling in itself—I feel your pain—but it’s more complicated than that. “Empathy” actually refers to **several different ways we respond to each other.”**

Jamil Zaki

Director, Stanford Social Neuroscience Laboratory



“The construct of empathy needs to be decomposed”

Dr. Jean Decety

Head of the Social Cognitive Neuroscience Laboratory,
University of Chicago

Source: Decety, Jean. “Dissecting The Neural Mechanisms Mediating Empathy.” Emotion Review 3, No. 1 (January 2011): 92–108. <https://doi.org/10.1177/1754073910374662>.

“One could justifiably question the heuristic or conceptual advantages of one **monolithic concept of empathy.”**

Dr. Jean Decety

Head of the Social Cognitive Neuroscience Laboratory,
University of Chicago

Source: Decety, Jean. “Dissecting The Neural Mechanisms Mediating Empathy.” Emotion Review 3, No. 1 (January 2011): 92–108. <https://doi.org/10.1177/1754073910374662>.

**“[We need to start]
breaking down empathy
and related phenomena
into component processes”**

Dr. Jean Decety

Head of the Social Cognitive Neuroscience Laboratory,
University of Chicago

Source: Decety, Jean. “Dissecting The Neural Mechanisms Mediating Empathy.” Emotion Review 3, No. 1 (January 2011): 92–108. <https://doi.org/10.1177/1754073910374662>.

“The functional architecture of human empathy...involves parallel and distributed processing in a number of dissociable computational mechanisms.”

Dr. Jean Decety

Head of the Social Cognitive Neuroscience Laboratory,
University of Chicago

Decety, Jean, and Philip L. Jackson. “The Functional Architecture of Human Empathy.” *Behavioral and Cognitive Neuroscience Reviews* 3, no. 2 (June 2004): 71-100. <https://doi.org/10.1177/1534582304267187>.



Is empathy like legacy code?



**What are those components,
mechanisms, & processes?**

**Can we use systems engineering
to improve quality & delivery?**



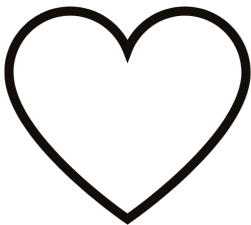
Three Years Later...

**Empathy is the mechanism
humans evolved to
collaborate and solve
complex problems.**

- Andrea Goulet

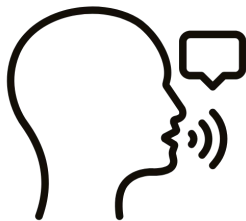
Empathy Converts Compassionate Communication Into Collaboration*

INPUTS



COMPASSION
(POTENTIAL ENERGY)

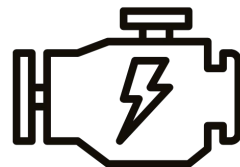
- Presence
- Warmth
- Common Humanity
- Comforting Intention



COMMUNICATION
(KINETIC ENERGY)

- Messages
- Channels
- Transmitters
- Receivers

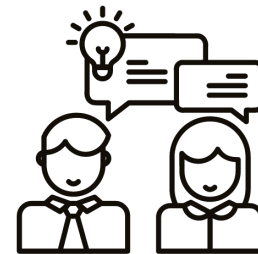
MECHANISMS



EMPATHY
(ENGINE)

- Resonating
- Regulating
- Reasoning
- Reflecting
- Responding
- Resourcing

OUTPUTS



COLLABORATION
(USEFUL WORK)

- Accurate Understanding
- Trust
- Mutual Support
- Co-Creation

Elements of Empathy

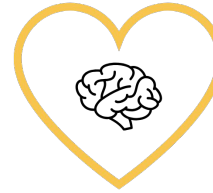
REGULATING

Controlling
Impulses



REASONING

Thinking
Critically



RESONATING

Connecting
Emotionally



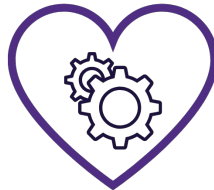
REFLECTING

Assessing
Inferences



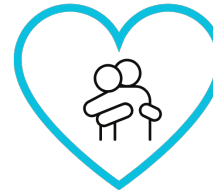
RESOURCING

Optimizing
Motivation

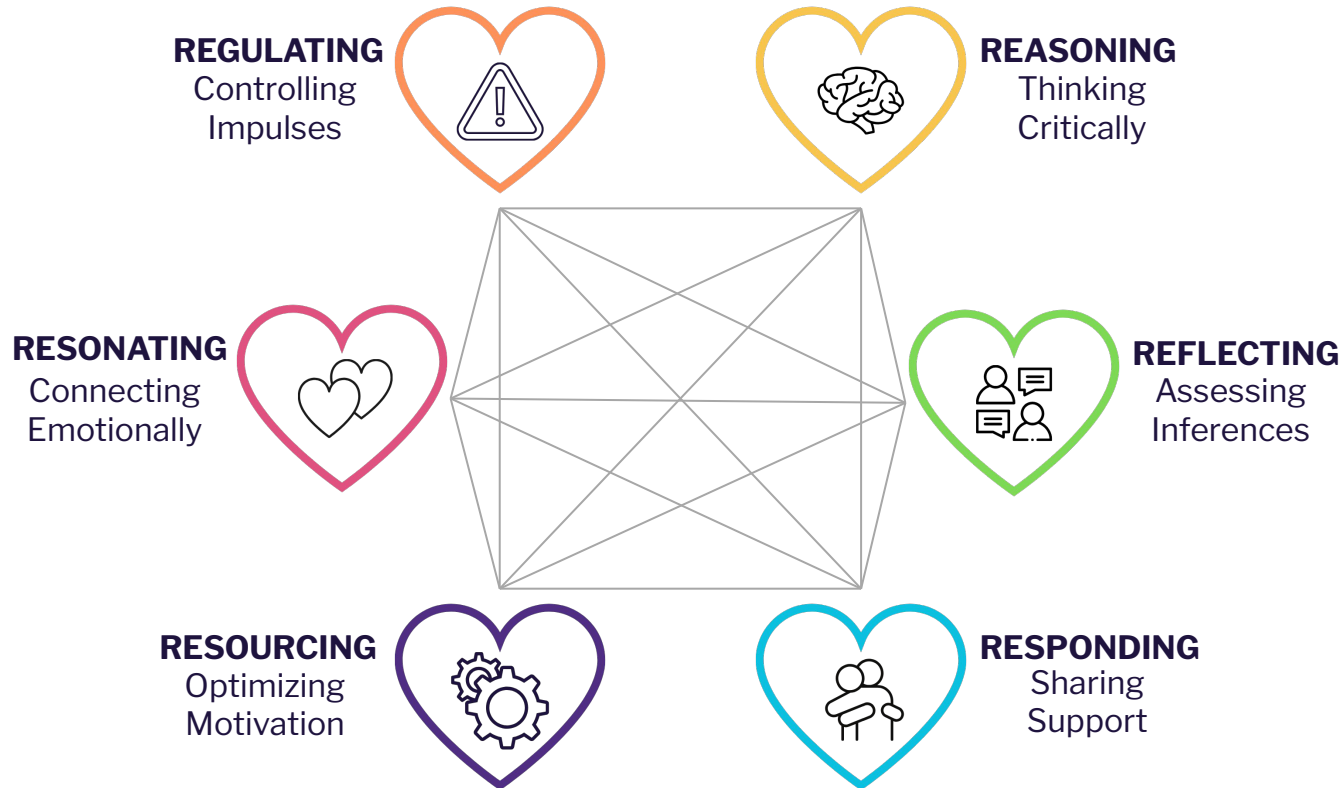


RESPONDING

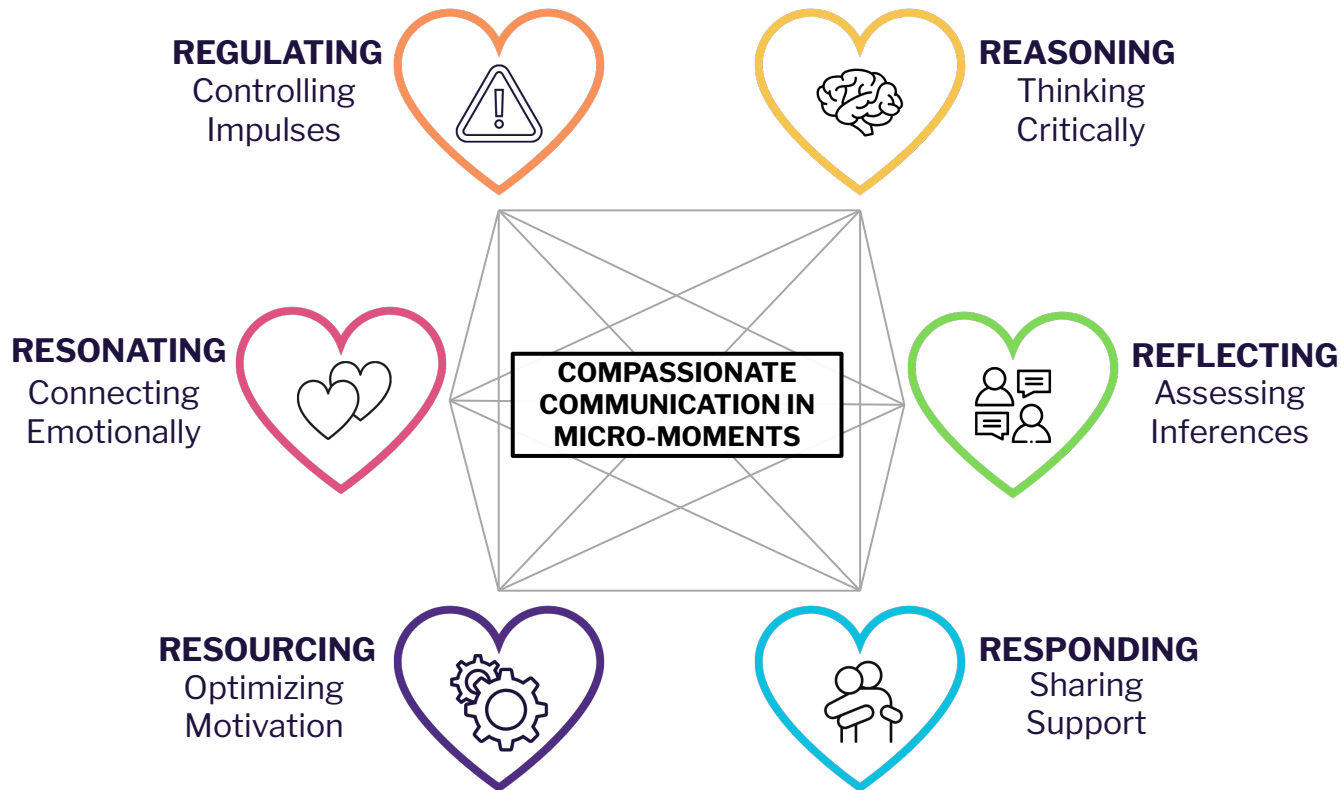
Sharing
Support

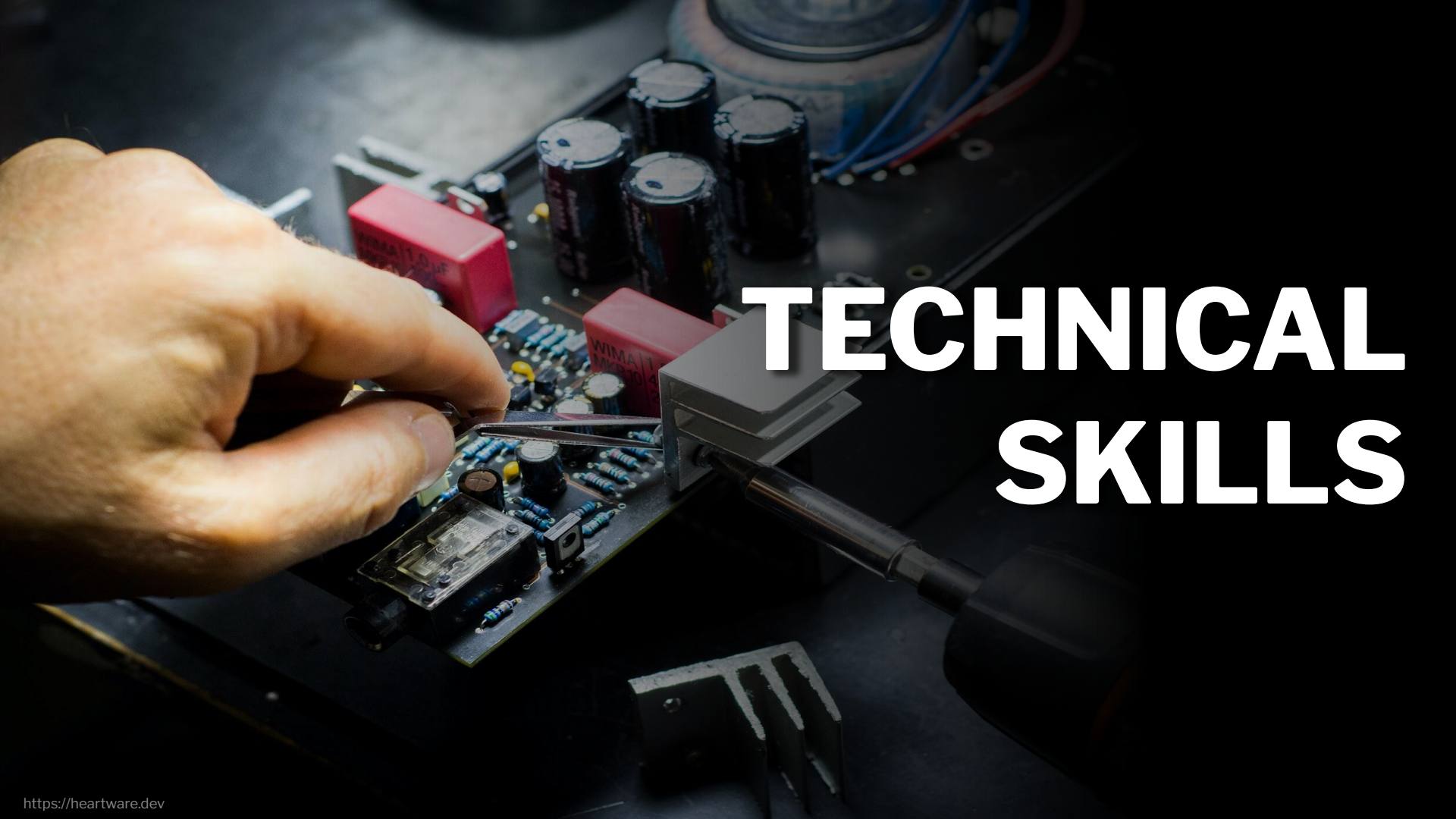


Empathy Is a System



Empathy Is a System





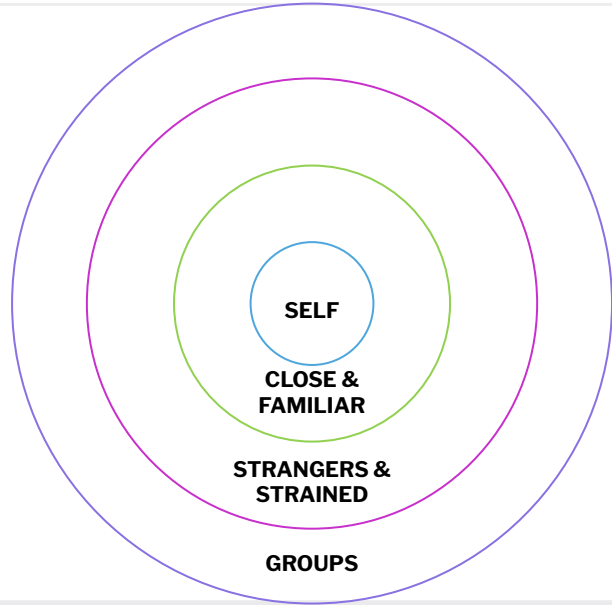
TECHNICAL SKILLS

Self-Compassion



1. Comfort yourself like you comfort a friend.
2. Recognize you're not alone or broken.
3. Observe without over-identifying.

Loving Kindness



May [target]...

- be safe
- be happy
- be healthy
- live with ease

Empathic Capacity

**Distress
destroys
empathy.**

- Situational
- Physical
- Emotional
- Empathic
- Social

Empathy Gaps




- Experience
- Knowledge
- Processing
- Ability
- Values
- Motivation

Strong identification with one group often leads to muting empathy for members of rival groups.

Motivation & Tradeoffs



Reappraisals



Taking a moment
to reconsider our
initial assessment
and response.

People who habitually reappraise
situations tend to experience:

- more positive emotions
- better well-being
- higher levels of life satisfaction
- closer relationships with their peers
- more social support

Accuracy Benchmarking



Relationship	Empathic Accuracy
Baseline (chance-level)	5%
Total Strangers	20%
Close Friends	30%
Life Partners	35%

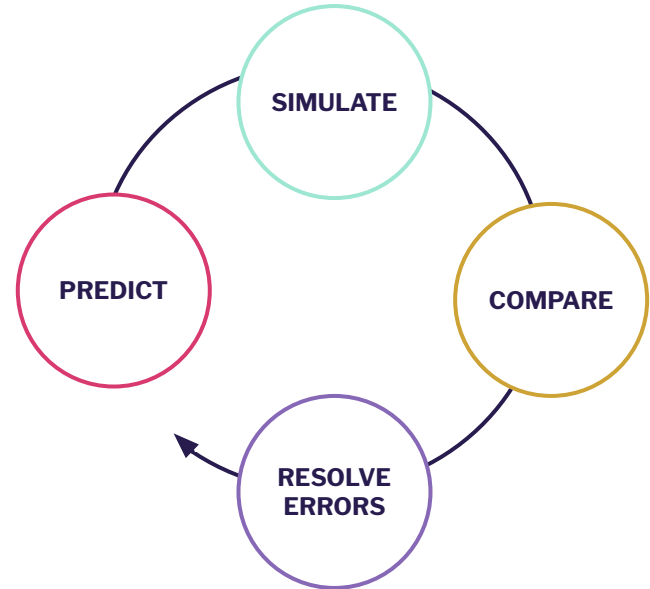
“The best mindreading performances—the rare outliers—achieve about 55%.”

Hinneken, Céline, William Ickes, Liesbet Berlamont, and Lesley Verhofstadt. “Empathic Accuracy: Empirical Overview and Clinical Applications.” In *The Neural Basis of Mentalizing*, edited by Michael Gilead and Kevin N. Ochsner, 149–70. Cham: Springer International Publishing, 2021. https://doi.org/10.1007/978-3-030-51890-5_8.

Prediction Errors & Feedback

“Help me understand...”

Feedback significantly improves empathic accuracy.



Den Ouden, Hanneke, Peter Kok, and Floris De Lange. “How Prediction Errors Shape Perception, Attention, and Motivation.” *Frontiers in Psychology* 3 (2012). <https://www.frontiersin.org/articles/10.3389/fpsyg.2012.00548>.

Ickes, Vivian P. Ta, William. “Empathic Accuracy.” In *The Routledge Handbook of Philosophy of Empathy*. Routledge, 2017.

Prosocial Behavior

Giving-oriented teams more effectively share information, sustain motivation, negotiate how work is distributed, manage resources, and ultimately maximize the value they deliver. As a result, individual members tend to thrive as well.

- Healthy Giving Behavior
- Managerial Influence
- Perceived Justice
- Psychological Safety
- Impact Recognition
- Signals of Appreciation

Interconnectedness

IMPLEMENTATION

“Make the
compiler happy.”

INTERACTION

“Make the
customer happy.”

IMPACT

“Make a
difference.”

A close-up photograph of a white Pepper robot. The robot has large, expressive blue eyes and a small black dot on its forehead. It is holding a tablet computer in front of it. A name tag on its chest reads "pepper". The background is a warm, wood-paneled wall.

EMPATHY AUTOMATION

Big Problems in Current Datasets

“Companies can say whatever they want, but the data are clear. They can detect a scowl, but that’s not the same thing as detecting anger.”

- *Dr. Lisa Feldman-Barrett*

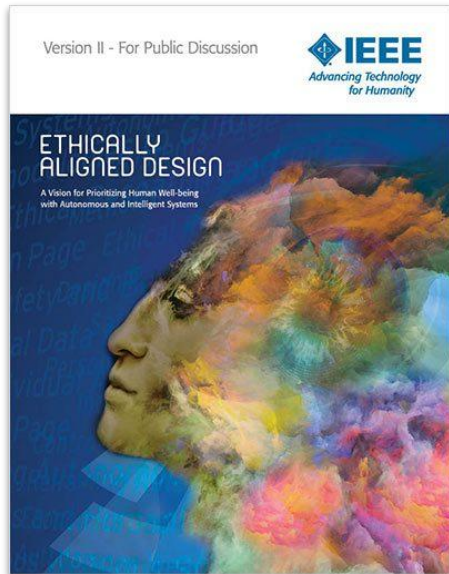
Ekman (FACS)-Based Datasets

- Facial Recognition Recognition 2013 (FER2013)
- Extended Cohn-Kanade (CK+)
- Japanese Female Facial Expression (JAFFE)
- Facial Expression Research Group (FERG)
- Karolinska Directed Emotional Faces

Sources:

- Vincent, “AI ‘Emotion Recognition’ Can’t Be Trusted.”
- Barrett et al., “Emotional Expressions Reconsidered.”
- Minaee, Minaei, and Abdolrashidi, “Deep-Emotion.”
- Crawford, *Atlas of AI*.
- Kaliouby, *Girl Decoded*.

Use Your Empathy Skills to Solve This Complex Problem



https://standards.ieee.org/news/ead_v2/


ASSOCIATION FOR
PSYCHOLOGICAL SCIENCE

Emotional Expressions Reconsidered: Challenges to Inferring Emotion From Human Facial Movements

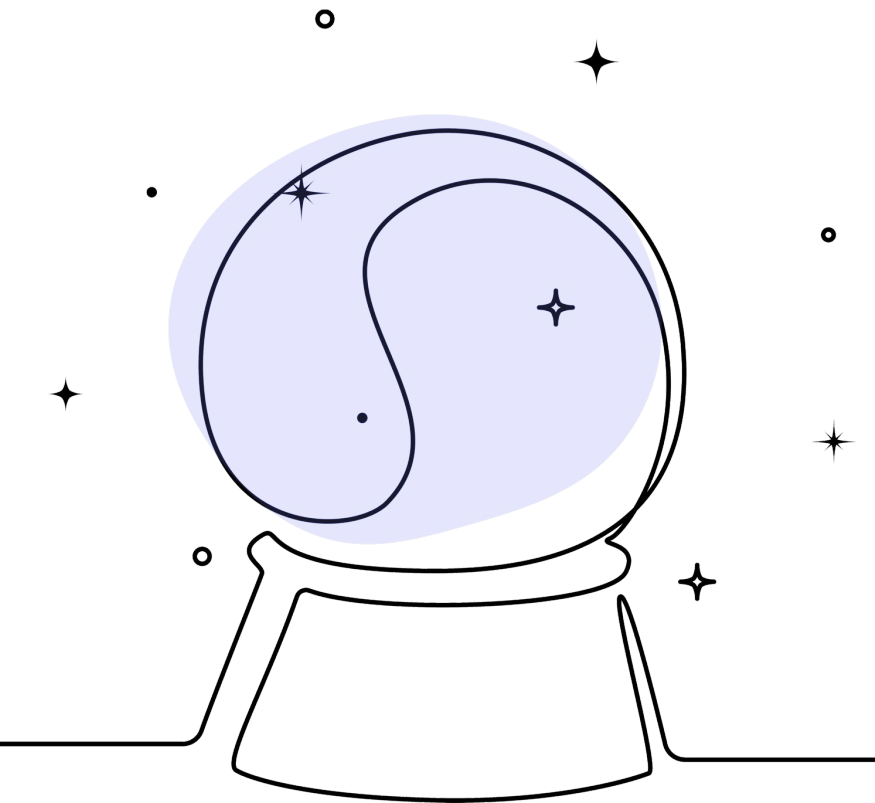
**Lisa Feldman Barrett^{1,2,3}, Ralph Adolphs⁴, Stacy Marsella^{1,5,6},
Aleix M. Martinez⁷, and Seth D. Pollak⁸**

¹Department of Psychology, Northeastern University; ²Department of Psychiatry, Massachusetts General Hospital, Boston, Massachusetts; ³Athinoula A. Martinos Center for Biomedical Imaging, Massachusetts General Hospital, Boston, Massachusetts; ⁴Division of Humanities and Social Sciences, California Institute of Technology; ⁵College of Computer and Information Science, Northeastern University; ⁶Institute of Neuroscience & Psychology, University of Glasgow; ⁷Department of Electrical and Computer Engineering and Center for Cognitive and Brain Sciences, The Ohio State University; and ⁸Department of Psychology, University of Wisconsin–Madison

Psychological Science in the
Public Interest
2019, Vol. 20(1) 1–68
© The Author(s) 2019
Article reuse guidelines:
sagepub.com/journals-permissions
DOI: 10.1177/1529100619832930
www.psychologicalscience.org/PSPI

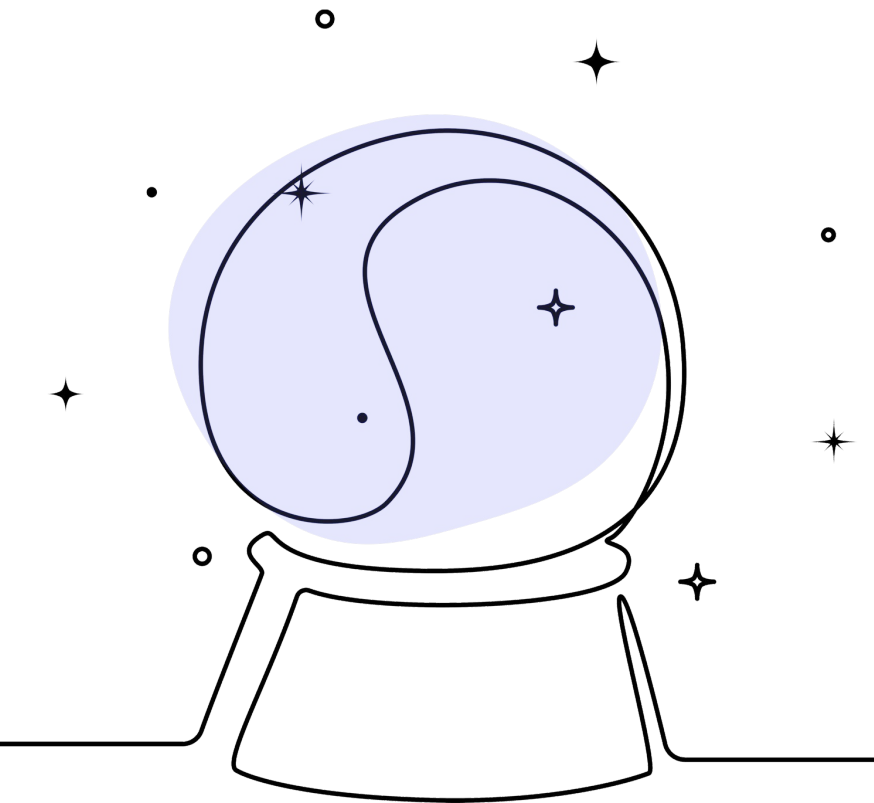


<https://journals.sagepub.com/stoken/default+domain/10.1177%2F1529100619832930-FREE/pdf>



“Any sufficiently advanced technology is indistinguishable from magic.”

-Arthur C. Clarke



“Any sufficiently advanced **skill** is indistinguishable from magic.”

-adapted from quote by Arthur C. Clarke

Empathy isn't magic.
It's a system of technical skills.
You can learn.
So let's solve complex problems...together.



Andrea Goulet

Corgibytes: www.corgibytes.com

Heartware: www.heartware.dev

Empathy in Tech: www.empathyintech.com

Substack: <https://andreagoulet.substack.com>

LinkedIn: <https://www.linkedin.com/in/andreamgoulet>

