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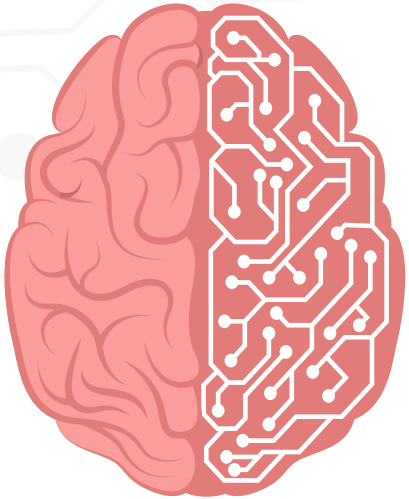


The Value of Human Empathy: Comparing Perceived Human and AI-Generated Empathy

Anat Perry, The Hebrew University of Jerusalem

Azrieli ICAMH conference - Integrating AI for Mental Health

June 5, 2025



Peer-to-peer support

🥰 Free, anonymous, and 24/7

Where would you like to try Koko?

WhatsApp

Discord

Telegram

"I'm trying to become a better me and having a hard time. It's easier not to"

- ~4,000 supporters
- ~30,000 messages
- Messages composed by AI (and supervised by humans) **were rated significantly higher** than those written by humans on their own ($p < .001$). **Response times went down 50%, to well under a minute.**

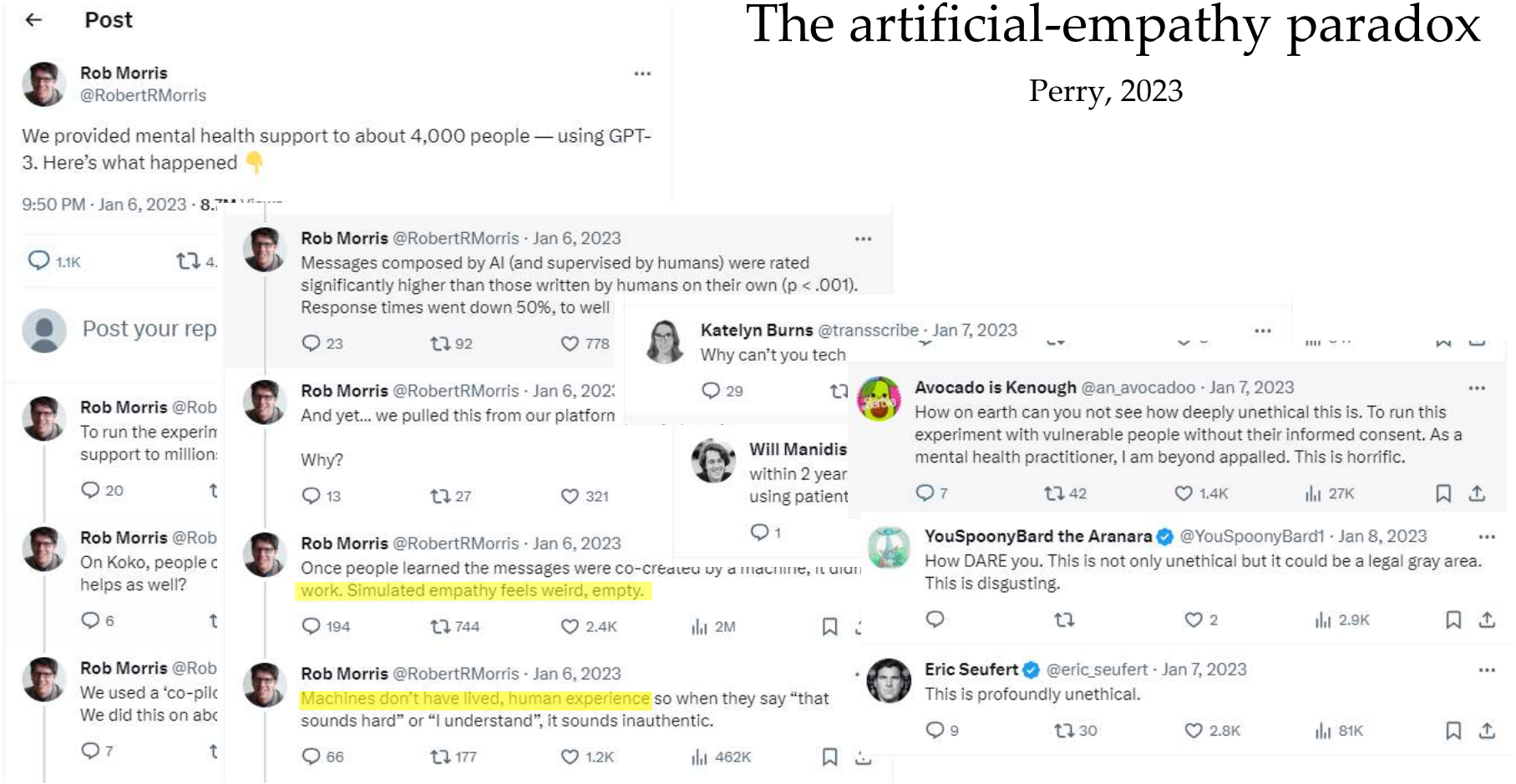
"I hear you. You are trying to become a better person and it's not easy. It's hard to make changes in our lives, especially when we are trying to do it alone. But you are not alone. There are people here who care about you and want to help you. I'm proud of you for making the decision to try to improve your life. It takes a lot of courage and strengths. I send you love and support as you go through this journey"



- **And yet, they pulled this from their platform very quickly. Why?**

The artificial-empathy paradox

Perry, 2023



This made me think…

- Could AI be empathic, and what does this mean?
- What do we value in human empathy?

Could AI be empathic and what does this mean?



Technological



Ethical



Philosophical



Psychological

Perry, A. (2023). AI will never convey the essence of human empathy. Nature Human Behaviour, 7(11), 1808-1809.

Rubin, M. Arnon H., Huppert J. D., **Perry A.** (2024) Considering The role of human empathy in AI-driven therapy. *JMIR Mental Health 11(1), e56529*

Shteynberg, G., Halpern, J., Sadovnik, A., Garthoff, J., **Perry, A**., Hay, J., ... & Fairweather, A. (2024). Does it matter if empathic AI has no empathy? *Nature Machine Intelligence*, 1-2.

Rubin, M., Li J., Zimmerman F., Ong D., Goldenberg A., **Perry A**. The value of perceiving a human response: Comparing perceived human versus AI-generated empathy (*in revision*)

Correspondence | Published: 20 July 2023

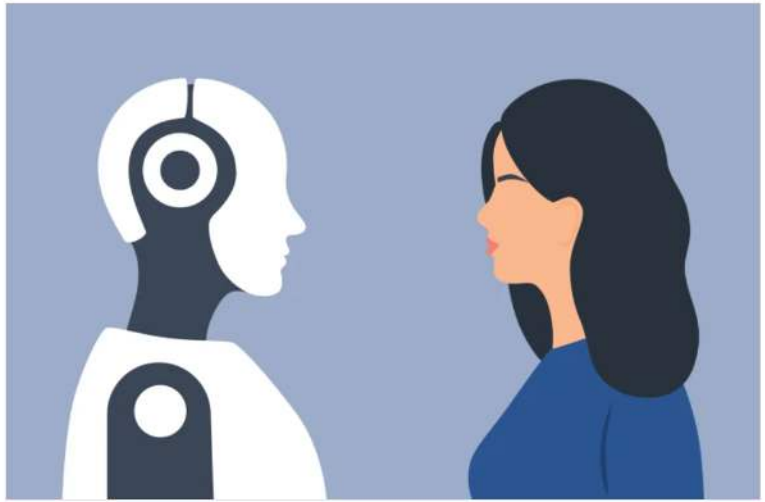
AI will never convey the essence of human empathy

Anat Perry

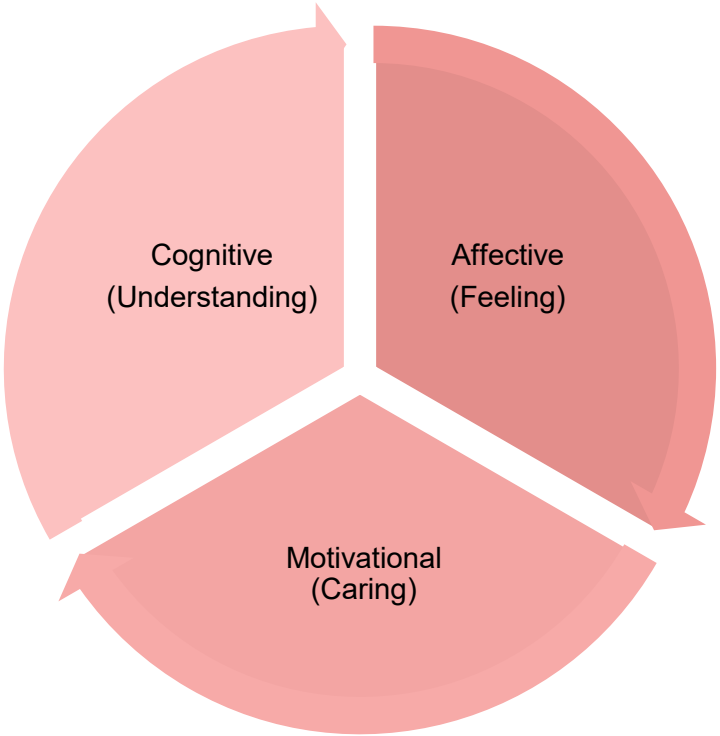
Nature Human Behaviour **7**, 1808–1809 (2023) | Cite this article

2068 Accesses | **5** Citations | **46** Altmetric | Metrics

Empathy generated by artificial intelligence (AI) is convincing and well received until recipients realize that it is artificial – a phenomenon that I term the 'artificial-empathy paradox'. I explain this phenomenon by examining the three subcomponents of human empathy and the gaps between each of them and AI from the perspective of the empathy recipient. I propose that as AI revolutionizes much of our lives, empathy will persist as one of a few domains that are more highly valued in their human form. I argue that what seems to be a limitation of human empathizers – the fact that they are biological beings with finite energy resources for care and support – is why their empathy will surpass that of AI.



Empathy



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I argue that what seems to be a limitation of human empathizers — the fact that we are biological beings with finite energy resources for care and support — is why our empathy will be valued more than that of AI.

Perry, A. (2023). AI will never convey the essence of human empathy. *Nature Human Behaviour*, *7*(11), 1808-1809.

Let's see some data

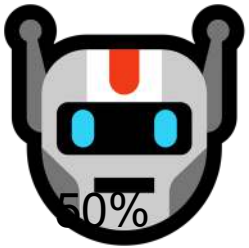
Matan Rubin



Rubin M., Li J., Zimmerman F., Ong D., Goldenberg A., **Perry A.** *(in press)*The Value of Perceiving a Human Response: Comparing Perceived Human versus AI-Generated Empathy (*Nature Human Behaviour*)

Studies 1 & 2: How do people perceive empathy thought to be generated by AI versus by humans

- Participants (ages 18-35, half female) were asked to share a recent emotional story.



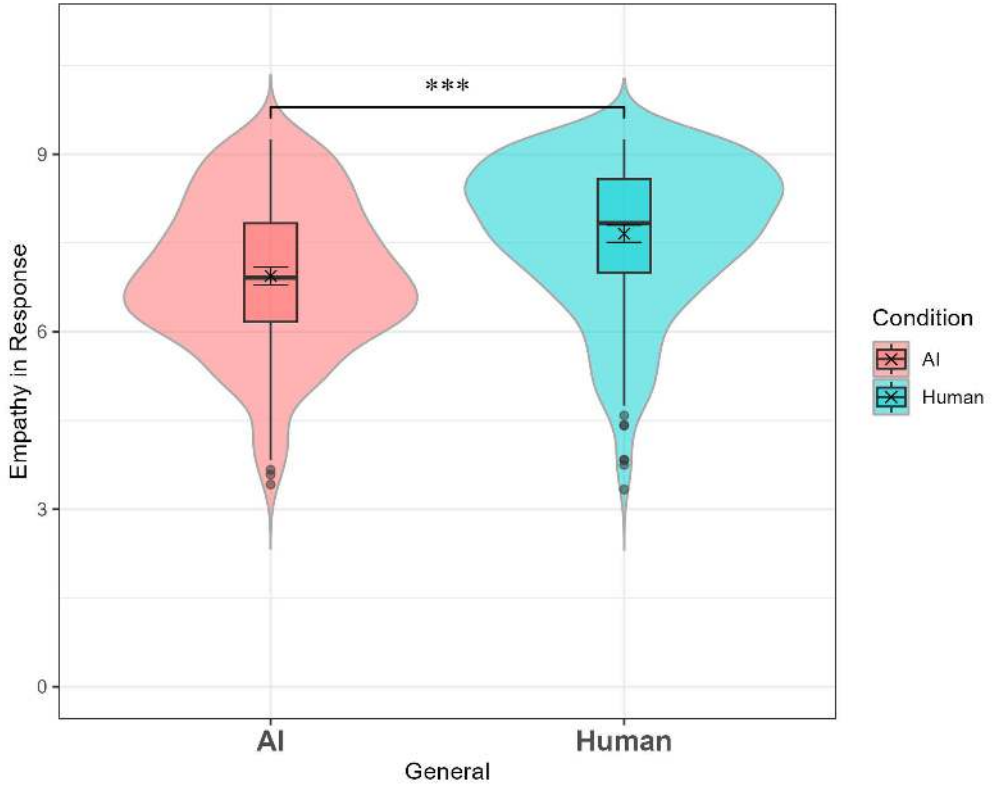


All responses were AI generated

- They rated the empathy they felt, different emotions, help and support.
- How much they thought the human response was aided by AI (or vice-versa)

Results - Empathy

Effects of conditions on perceived empathy

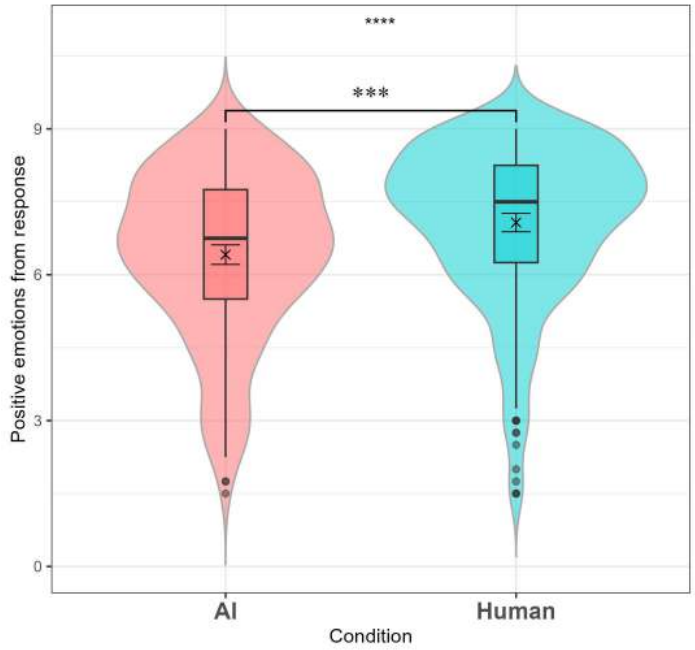


N = 593

t-test; Cohen's d= 0.56

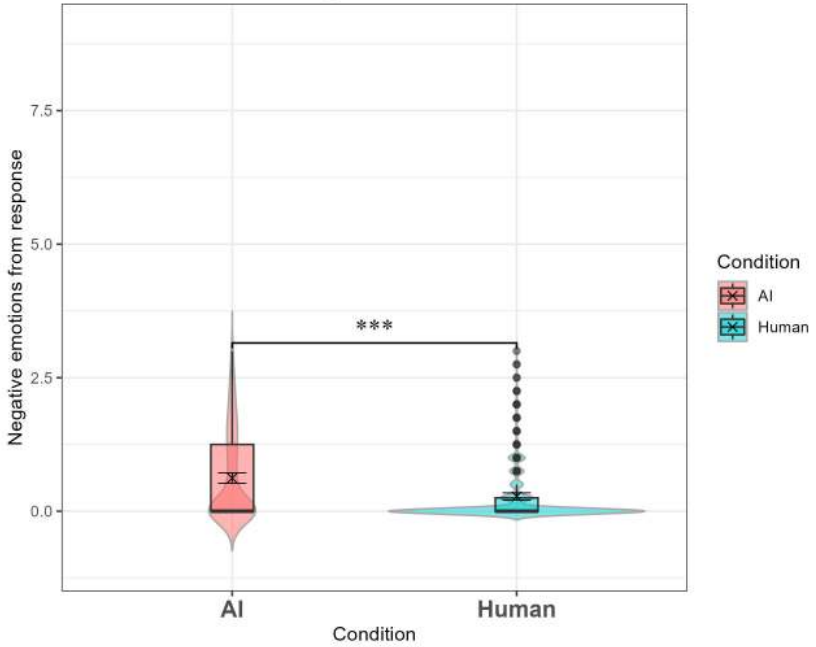
Results – positive and negative emotions

Effects of conditions on positive emotions



t-test; Cohen's d= 0.39

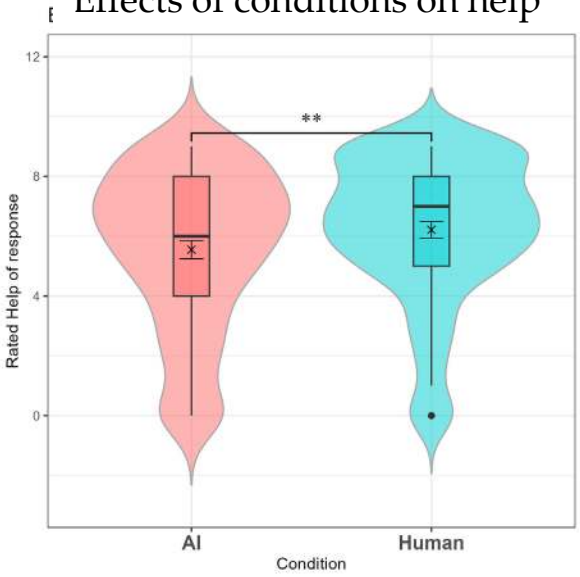
Effects of conditions on negative emotions



t-test; Cohen's d= 0.47

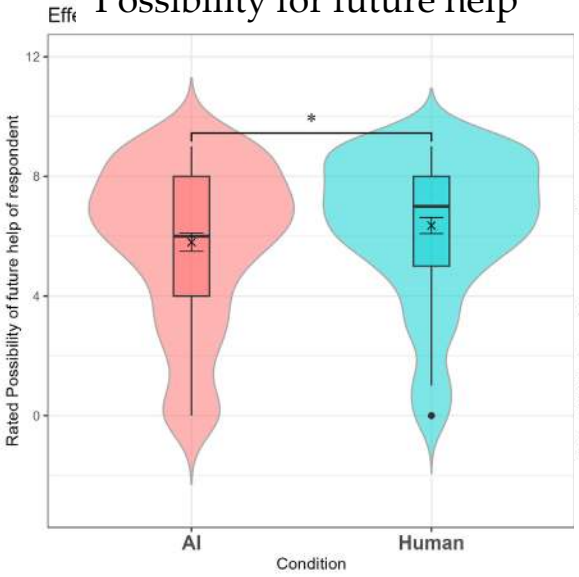
Results - Support

Effects of conditions on help



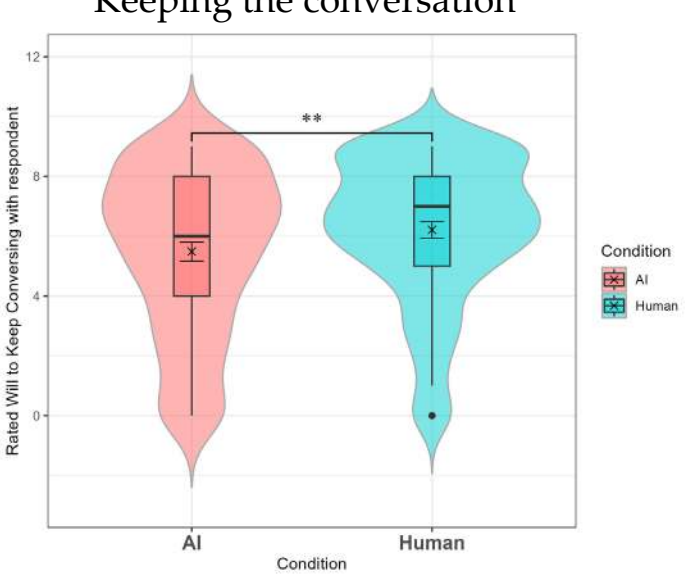
t-test; Cohen's d= 0.26

Possibility for future help



t-test; Cohen's d= 0.22

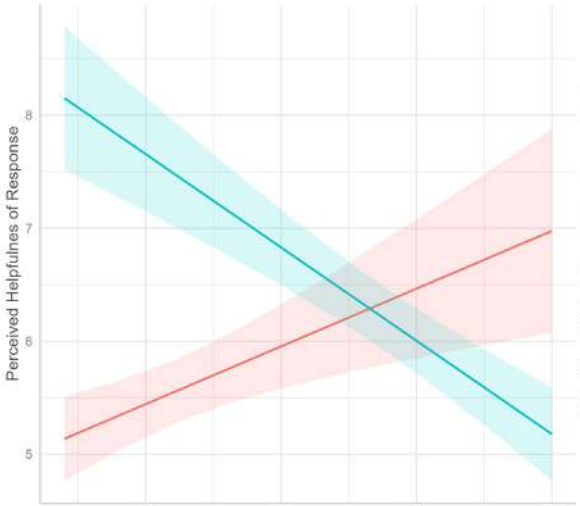
Keeping the conversation



t-test; Cohen's d= 0.28

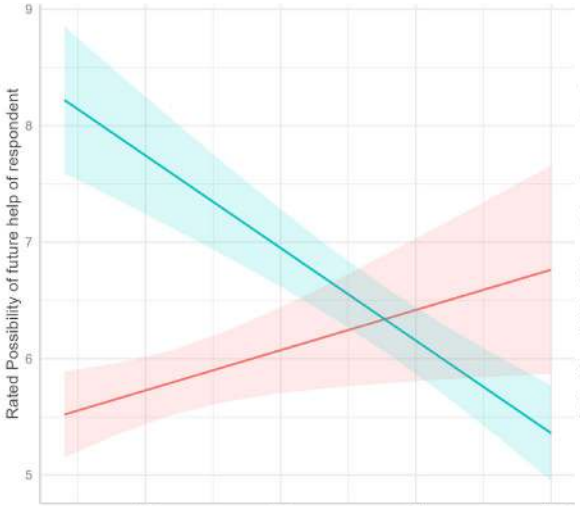
Results : Support X aided by human / AI

Effects of conditions on help



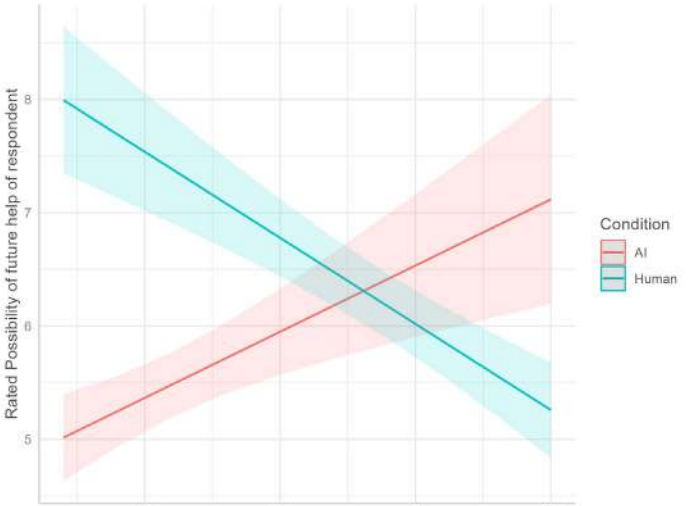
Assumed aid from other source

Possibility for future help



Assumed aid from other source

Keeping the conversation



Assumed aid from other source

Multiple Regressions; all interactions $p < 0.001$

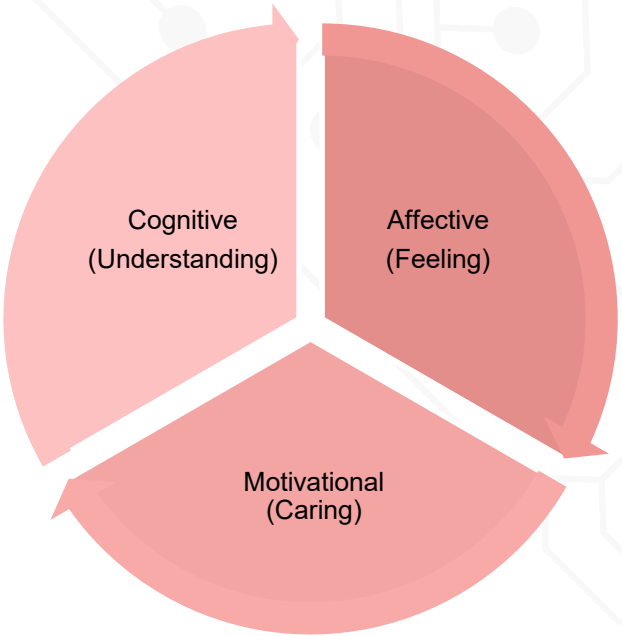
Dealing with some alternative explanations

- Is this specific to GPT?
    - We replicated these effects with Llama, an open source LLM (by Meta).
- One interaction is not ecological
    - We replicated the results with multiple iterations
- Is this a halo effect? (i.e. participants are impressed by the fast and eloquent response of the perceived person)
    - We replicated the findings in 2 studies: with a simplified response; with a longer waiting time

Study 3: What if the empathic responses stress different empathic components

Prompting Chat GPT to answer empathic responses which stress only:

Cognitive empathy – understanding
Affective empathy – feeling with
Motivational empathy - caring



Examples – piloting

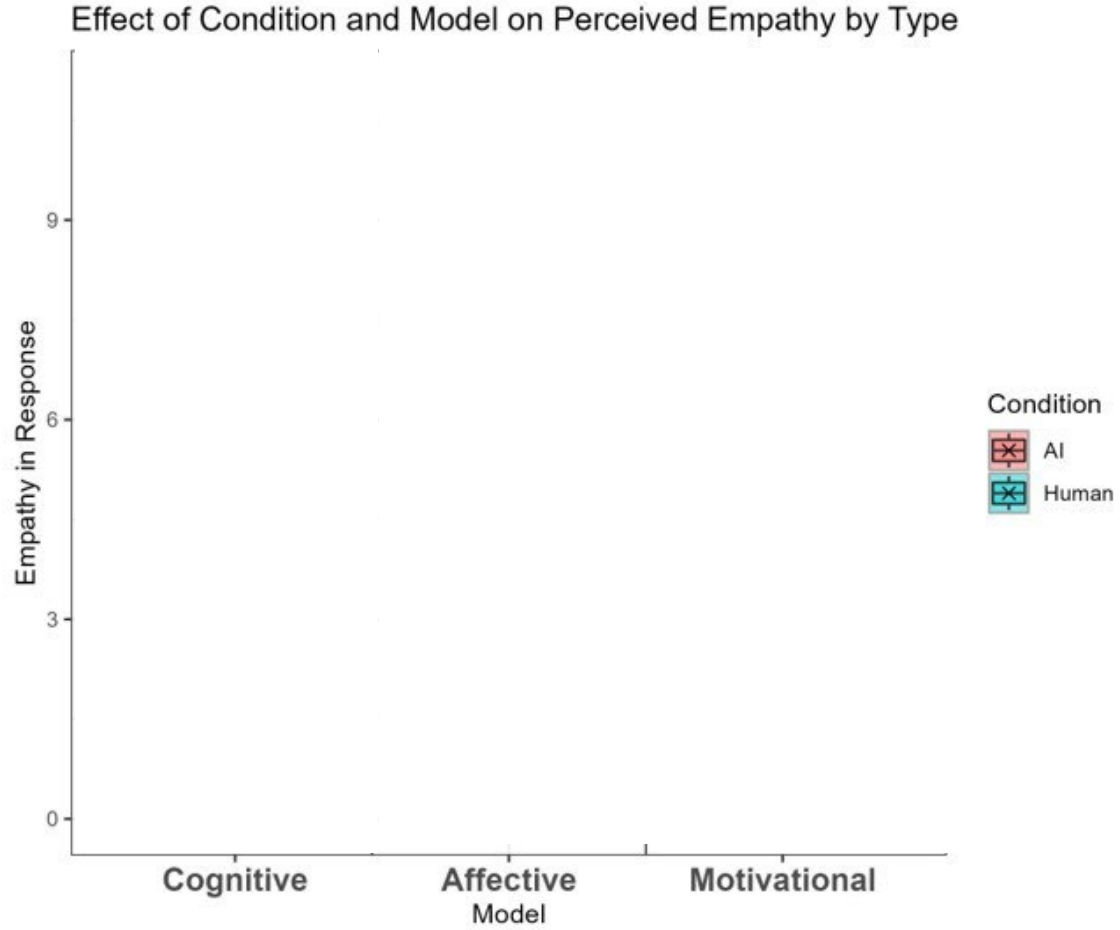
We gave the same story to the 3 models (romantic dilemma)

I can see that you're experiencing a real conflict of emotions right now, feeling pulled in two directions by people you deeply care for. The love and respect you still have for your long-term boyfriend creates one pull, while the potential of rekindling something with the newer acquaintance seems to offer a different but compelling appeal. The uncertainty of the whole situation appears to be hard for you, as making a choice either way isn't easy.

I genuinely feel for you as you navigate through this rollercoaster of emotions; it's certainly hard when you care deeply for two individuals. Remember that it's okay to feel confused; your feelings are valid. Listen to your heart, but also consider what will truly make you happy and fulfilled in the long run. Trust that you have the strength and wisdom to make the choice that's right for you.

I can feel the immense emotional turmoil you must be going through, torn between two people you hold dear in different ways. It's truly a complex state you're in, caught between past affections and new beginnings. The uncertainty and unease that comes with deeply caring for two people, and the difficulty of facing options, both ripe with potential yet fraught with consequences, are emotions I too would be grappling with. It feels like a journey without a map.

Results


Effect of Condition and Model on Perceived Empathy by Type
Empathy in Response
9
6
3
0
Cognitive
Affective
Motivational
Model
Condition
AI
Human

Study 4 – How much do we value human empathy?

- ⋔⋔⋔ participants were asked to write about an emotional experience, and then choose:
  - To receive an immediate AI response.
  - To receive a response from a person in 2 hours
  - Reasons



Study 5 – How much do we value being heard?

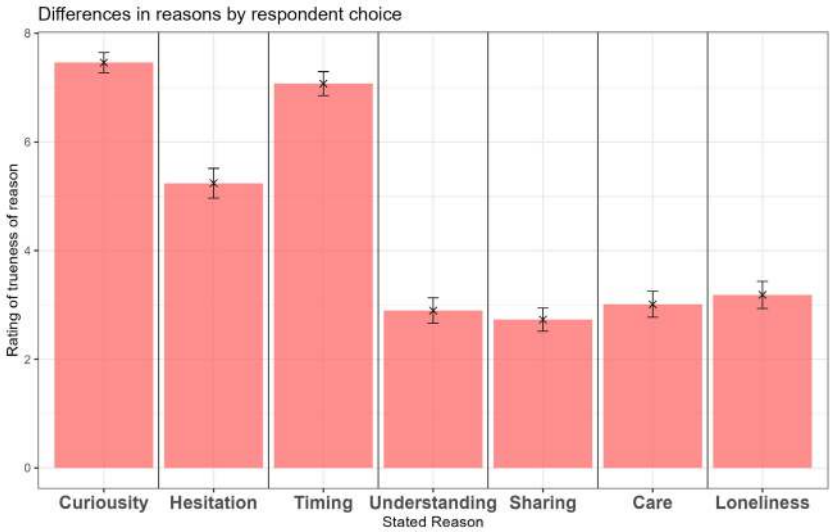
- Same as Study 4, but options are:
  - To receive an immediate AI response.
  - To receive a response that a person ***read what you wrote,*** within: 2 hours/24 hours/ 1 week/ 2 months/ 2 years.

Yin, Y., Jia, N., & Wakslak, C. J. (2024). AI can help people feel heard, but an AI label diminishes this impact. *Proceedings of the National Academy of Sciences*, *121*(14), e2319112121.

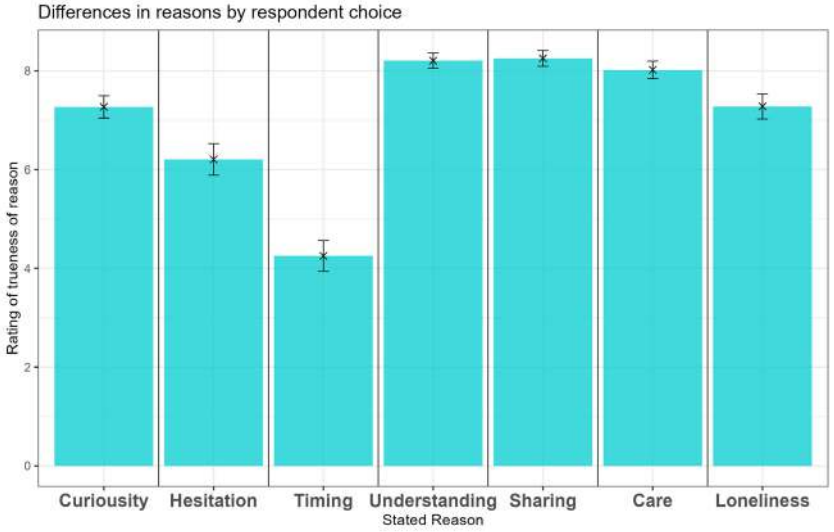


Study 4 & 5 - Reasons for choice

Why chose AI?



Why chose human?



Conclusions

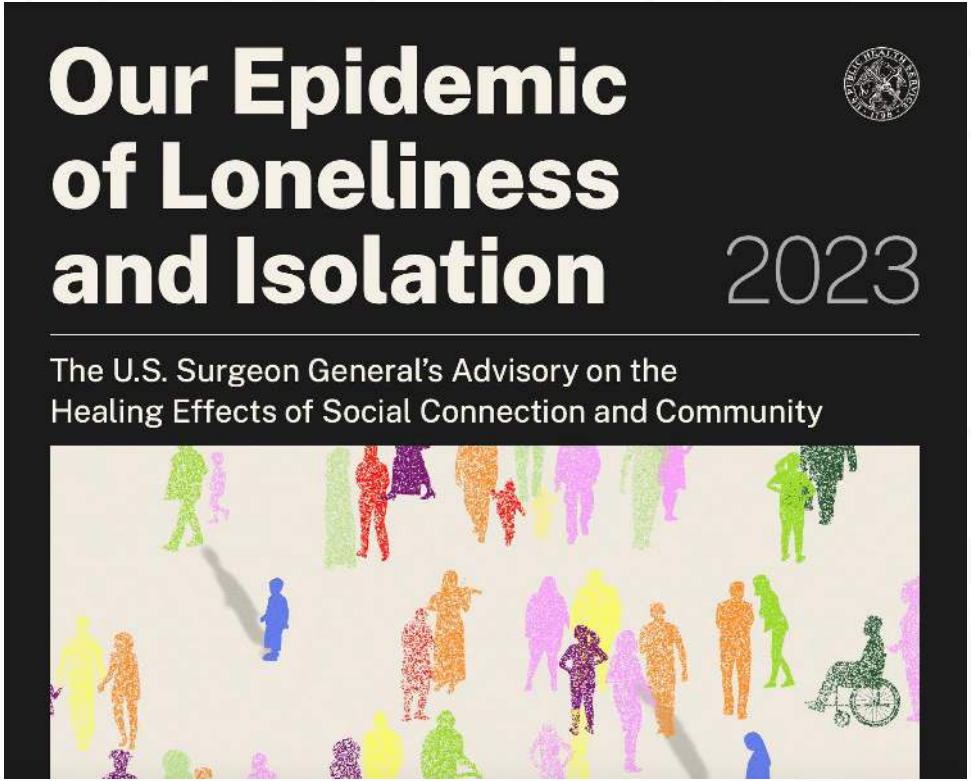
- While AI will be able to replace many aspects of our daily lives and interactions, when what we need is empathy (especially emotional sharing and care) human connection will be valued more.

Open Questions

- **Why does empathy have this value?**
  - Humans as biological entities with limited capacity (care)
  - Physical dimensions – embodiment, simulation (feeling)
  - Reciprocity?
  - When is each important?
- **What else has this value?**
  (intimacy, love, devotion, gossip, humor, art?)

Implications

- Relationships
- Societal Implications
- **Mental Health**



Rubin M, Arnon H, Huppert J, Perry A
Considering AI-driven therapy: When does human empathy matter?
DOI: 10.2196/preprints. 56529
URL: https://preprints.jmir.org/preprint/ 56529

Implications for Mental Health

- The advent of advanced AI technologies offers substantial benefits and potential enhancements to therapeutic practices, as well as greater accessibility for a wider population.
- Nevertheless, certain junctures within the therapeutic process may be particularly sensitive to the need for human rapport. We suggest that those points, which may be whole treatments or specific sessions, are times when empathy is especially needed.
- Although conversational AI can adeptly *simulate empathic interactions*, sometimes creating the impression of empathy surpassing human capability, the essence of seeking empathy transcends the mere reception of an ideal empathic response.

Rubin, M., Arnon, H., Huppert, J. D., & Perry, A. (2024). Considering the role of human empathy in AI-driven therapy. *JMIR Mental Health*, *11*(1), e56529.

Implications for Mental Health

- It encompasses a longing for the genuine care and emotional engagement of the individual offering support.

- The optimal path forward may lie in designing applications that facilitate therapist-AI partnerships, wherein AI systems could augment various facets of therapy—from initial intake and evaluation to, in certain instances, complete treatment modalities—while also ***consciously addressing the need for authentic human empathy, compassion, and care, when relevant for treatment success.***

Rubin, M., Arnon, H., Huppert, J. D., & Perry, A. (2024). Considering the role of human empathy in AI-driven therapy. *JMIR Mental Health*, *11*(1), e56529.



Thank you

anat.perry@mail.huji.ac.il