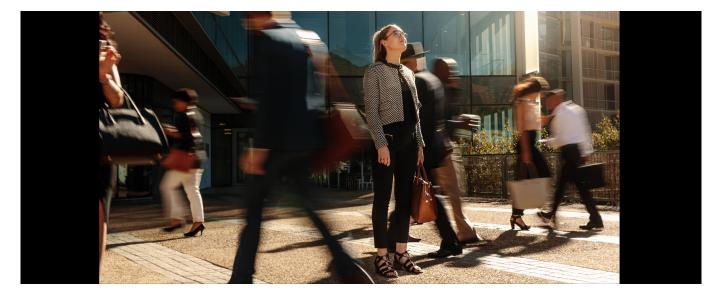


## Card for Humanity - Look up

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Have you seen the "Look Up" posters around your neighbourhood lately?

These posters are highlighting a collaborative human centred research project from Dr Fiona Kerr (founder of <u>The NeuroTech Institute</u>) and Lekki Maze (founder of <u>Welcome Dinners Project</u>) which documents the benefits of "looking up", "to inspire new ways of seeing, being and living together across communities".

This project is a gentle nudge to look up from our devices, engage more fully with the people around us and the world we live in. It invites people from all around Australia, and the world, to LOOK UP, and enjoy the life-changing benefits it may bring.

#### Here are some of the highlights from their 34 page report ([1])

- Our collective attention span has shortened by around one third over the past fifteen years ([2]).
- Daydreaming mode (a natural cognitive state) is activated when we look up and out...providing space for an "aha! moment", which is key for deep thinking, creativity and forming new insights.
- Daydreaming supports our capacity to focus on goals that extend beyond the present and to combine different types of thinking. This is due to the salience network, which is central to prepping the brain for action, allowing multiple networks to fire. For example, when a driver must respond to someone darting across the road.
- We emit and pick up a huge amount of electrochemical information from each other when we engage, when we look at each other, speak, or even just share the same space.
- When we actively engage, we synchronise the social and emotional networks in our brains. This is known as interpersonal neural synchronisation or "neural coupling", enabling us to

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transfer not just information, but "meaning, delight, fear and aspiration".

- Neural coupling happens in positive face-to-face interactions with focused attention and when engaging with another person. Sharing stories synchronize the listener's brain with the teller's brain. When the brain sees or hears a story, its neurons fire in the same patterns as the speaker's brain. This is known as neural coupling.
- When engaging or in an abstractive state, mirror and spindle neurons start to fire and oxytocin and dopamine starts to flow in less than a second, pre-empting the beginnings of empathy and trust.
- We have many different types of "mirror neurons" which are especially active when people are bonding. These neurons allow us to read intent and pick up signals, helping to form a direct link between them which allows messages to be understood at a faster pace than conscious thought. These activate before our conscious biases.
- Humans, primates, elephants and dolphins possess spindle neurons. Known as the "trust neuron", they allow us to work out the variation of different relationships that mature and change over time.
- Both reflection and awareness change the brain. Reflection increases self-awareness which can inform or lessen our individual biases. Our biases can shape the lens through which we look at ourselves, others and our world. It can cause us to ignore relevant information, engage in negative self-talk and go into automatic pilot in thought or action. Reflection and contemplation assist counteracting this by allowing the brain's hippocampus to evaluate tacit learning and for multiple parts of the brain to connect, to more effectively 'test' thoughts by integrating several modes of non-linear information.

### What human connection can create ([1], [3], [4], [5])

- Hope is a related characteristic of human connection, one that is being further explored and understood in research. Quantitative studies indicate that hope is linked to several physical changes including a reduction in cortisol and pro-inflammatory cytokines, assisting wound repair and changing depression pathways. Early evidence is emerging that hope may instigate epigenetic changes.
- In medical practice and carer roles, hope has been shown to grow when a person has a high trust relationship and warm, face-to-face interactions.
- The book "Anatomy of Hope" discusses how hope is so powerful that it can change the quality and potential for survival in critically ill patients.

### Conclusion

The authors conclude that the science is in. Choosing to look up and out, at each other and your surroundings is beneficial for your brain, your body, your relationships and experience of the world ([1]). The potential benefits from connections made by looking up and out at each other with a glance, smile or short conversation is more than a way to pass the time. It meets a fundamental human need in our hardwiring for connection. The implications of this brief exchange can be immense.



#### References

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