

Lecture 10 - Loneliness

The Social Brain: Critical Perspectives on Science, Society and Neurodiversity

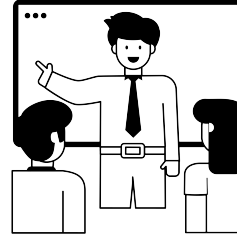
Richard Ramsey



Today

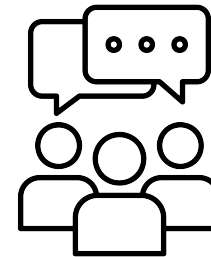
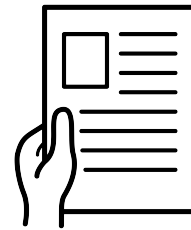
Part 1

- Loneliness



Part 2

- Read articles and discuss



Overview

- Background
- The reaffiliation model
- Neuroscience
- Brain injury
- Lifespan
- Interventions



Background



What is loneliness?

Loneliness and social isolation are often used interchangeably, which is confusing.

Social isolation is objectively quantifiable: the quantity and frequency of social contact, plus proximity to others.

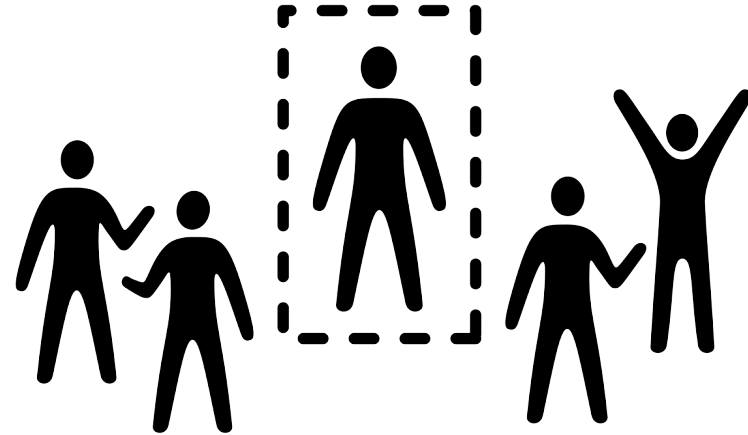
Loneliness is a subjective interpretation: an evaluation that social needs are not being met satisfactorily.



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(Cacioppo & Patrick 2008, Perissinotto & Cowinsky 2014, Valtorta et al. 2016)

Isolation versus loneliness



Types of loneliness

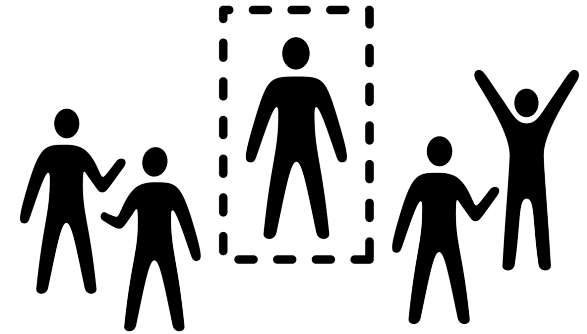
Social loneliness: the absence of a desired social network (family, friends and acquaintances).

Emotional loneliness: the lack of attachment figure/s that one could form an intimate connection with.



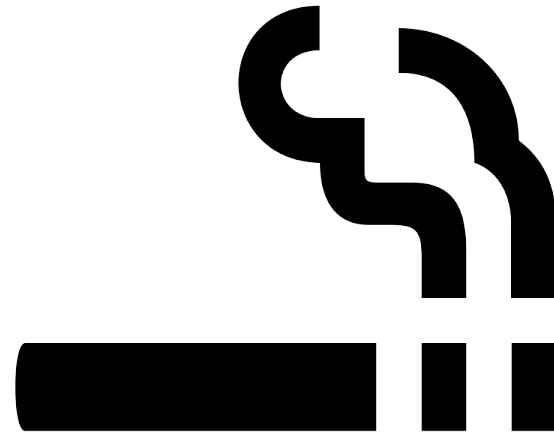
Physical versus social pain

- Physical pain is an aversive signal that evolved to minimise damage to one's body.
- Loneliness is a social pain that may serve a similar function.



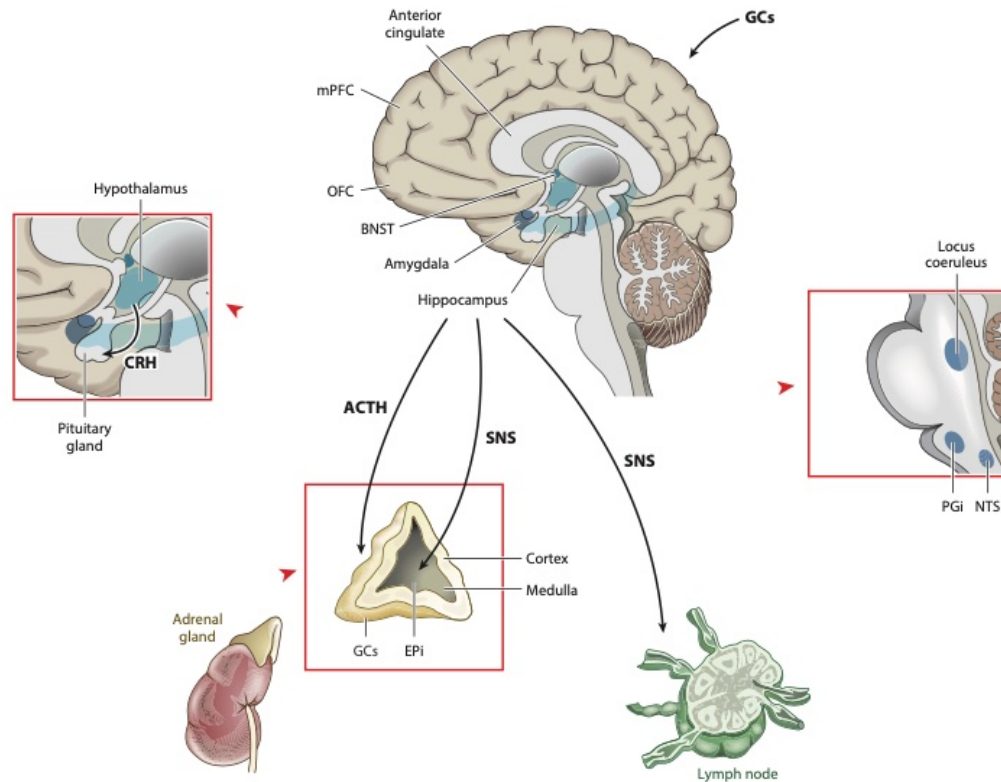
Health impact

- Loneliness is associated with increased morbidity and mortality.
- It is clearly bad for your health and well-being.
- But is loneliness worse than smoking 15 cigarettes a day?



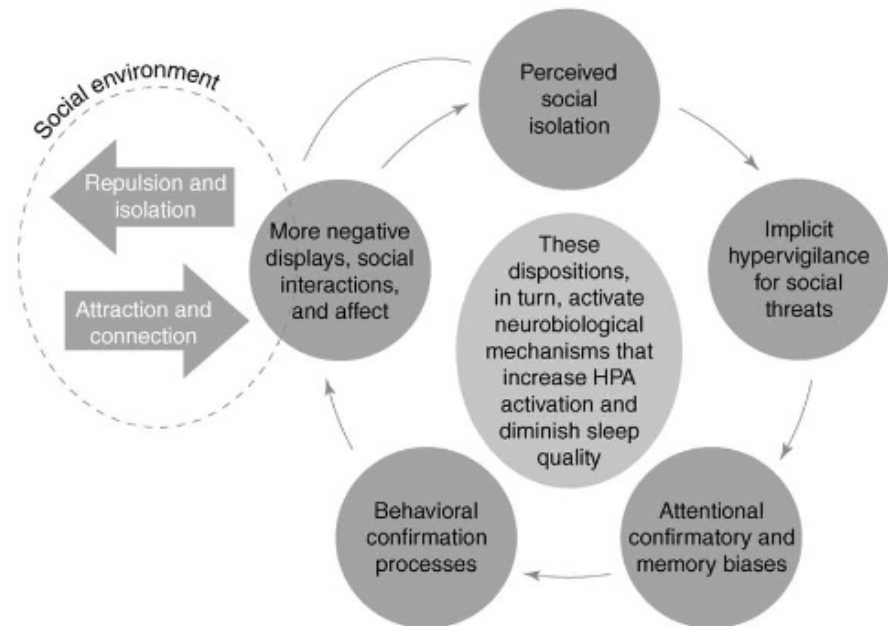
Physiological impact

Loneliness predicts physiological responses associated with stress (e.g., elevated blood pressure, rise in cortisol), *above and beyond objective measures of social isolation.*



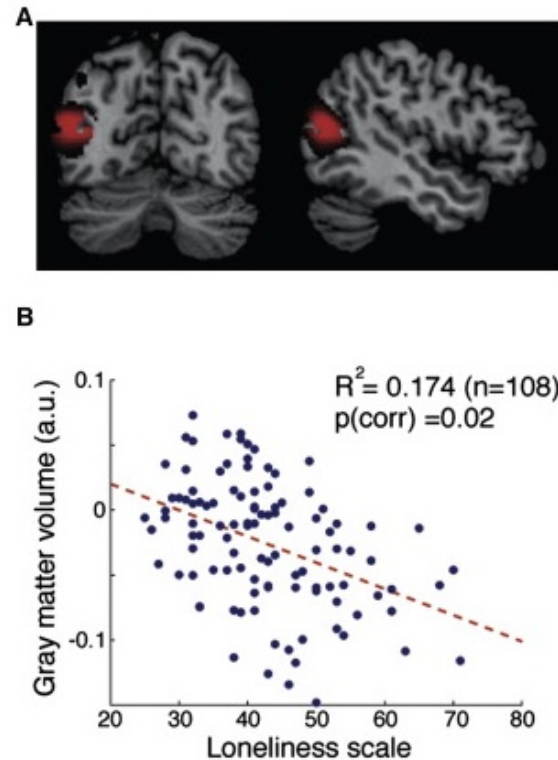
Psychological impact

Loneliness predicts maladaptive cognition and behavior (e.g., perception of social interactions as unpleasant, reduced physical activity, and lifetime satisfaction), *above and beyond objective measures of social isolation.*



Basic research impact

- Loneliness offers a way to study individual differences in social neuroscience.
- Somewhat surprisingly, social neuroscience rarely studies variation in “socialness” across individuals.
- But things are changing...



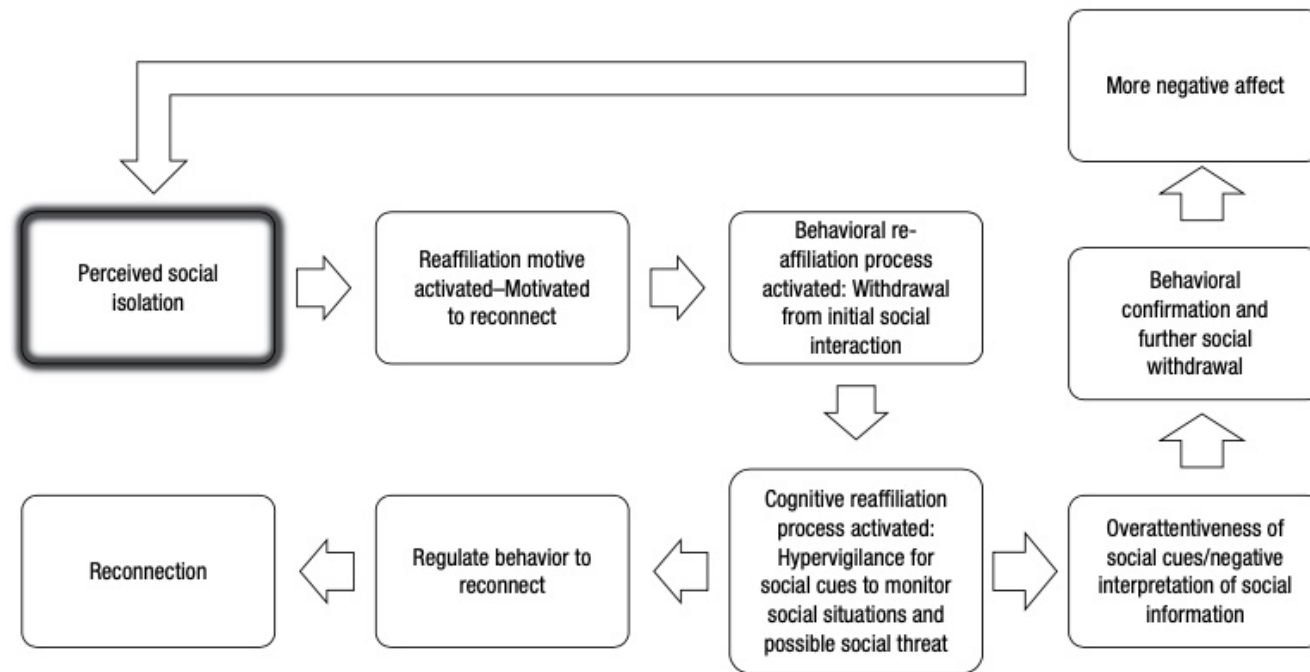
(Kanai et al. 2012)



The reaffiliation model (RAM)



RAM



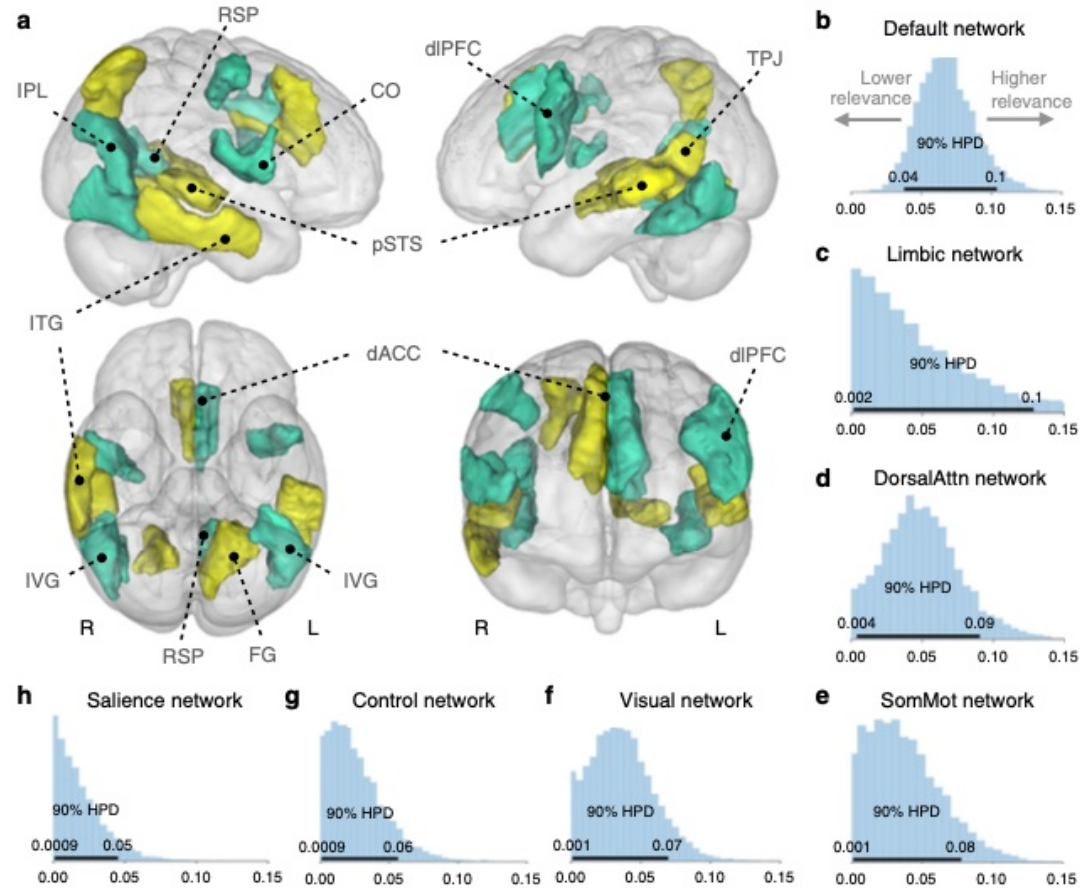
(Qualter et al. 2015)



Neuroscience



Structural changes

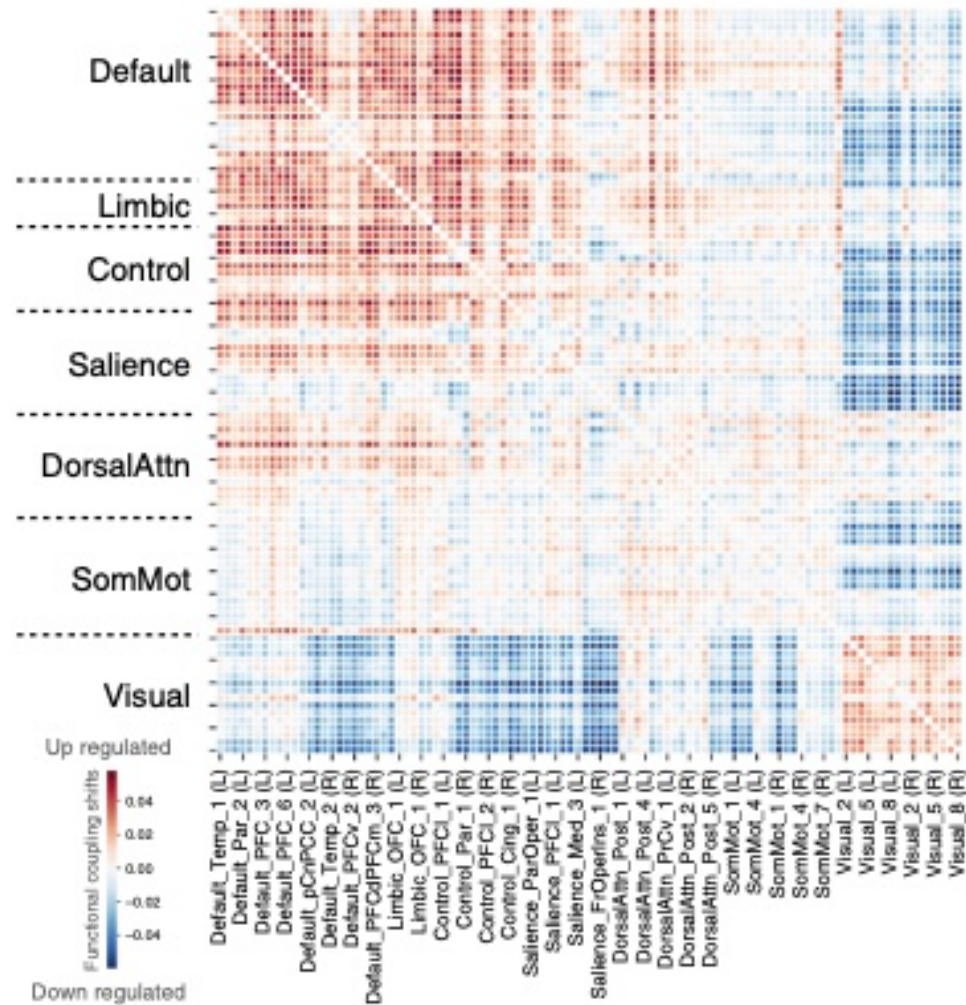


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(Spreng et al. 2020)



Functional changes



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(Spreng et al. 2020)



Brain injury



Clinical observation

- Following a brain injury, such as a stroke, cognitive and social functions are impacted.
- Brain injury assessments routinely include an assessment of cognitive function.
- But what about social function and loneliness?

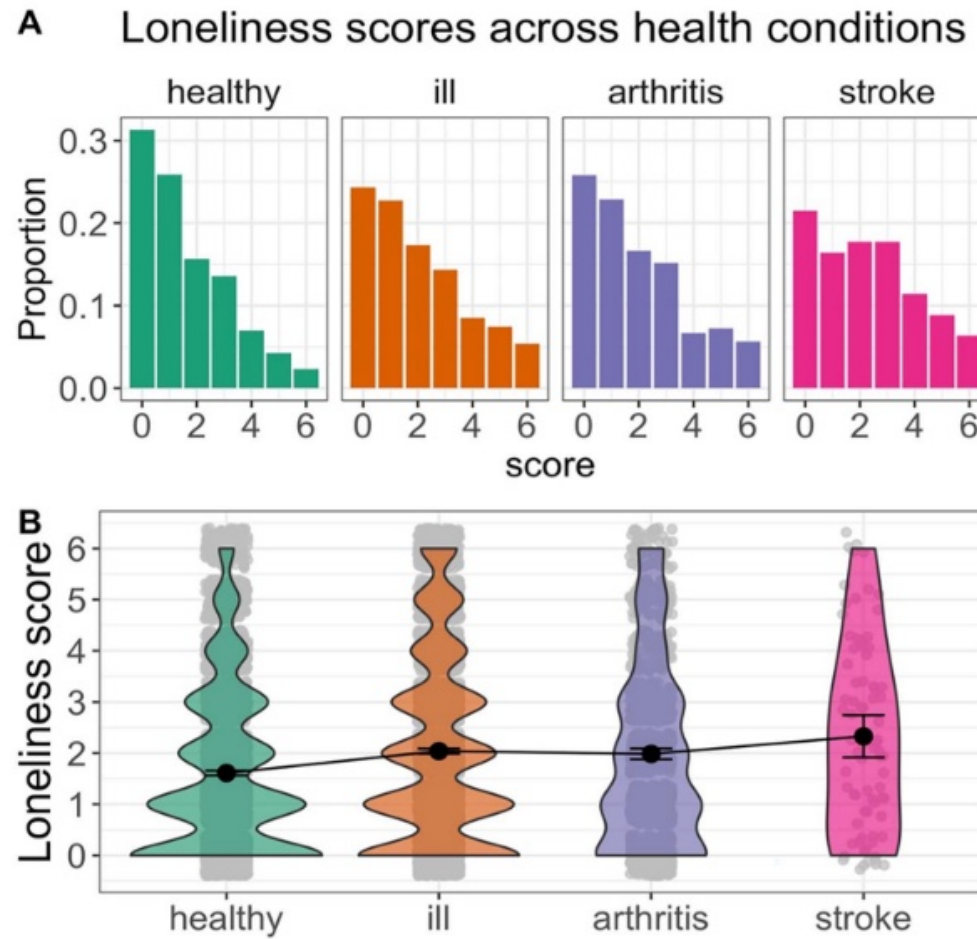


Assessing loneliness following stroke

- The national survey for Wales dataset
- Two cohorts (2016/17 and 2017/18)
- De Jong Gierveld Loneliness Scale ([Gierveld & Tilburg, 2006](#))
- N~8000 per cohort.



Loneliness ratings and stroke

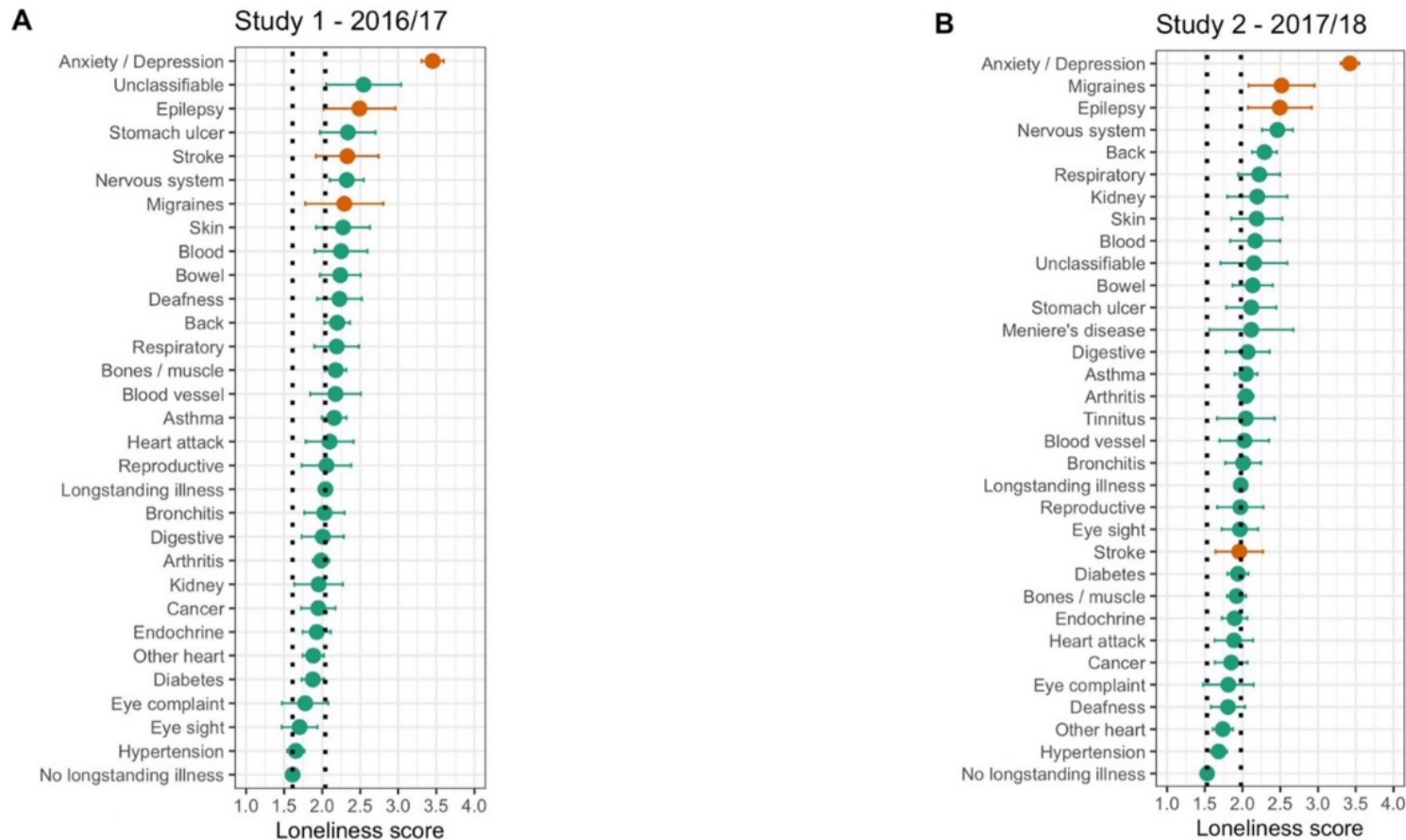


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(Burns et al. 2021)



What about other illnesses?



(Burns et al. 2021)

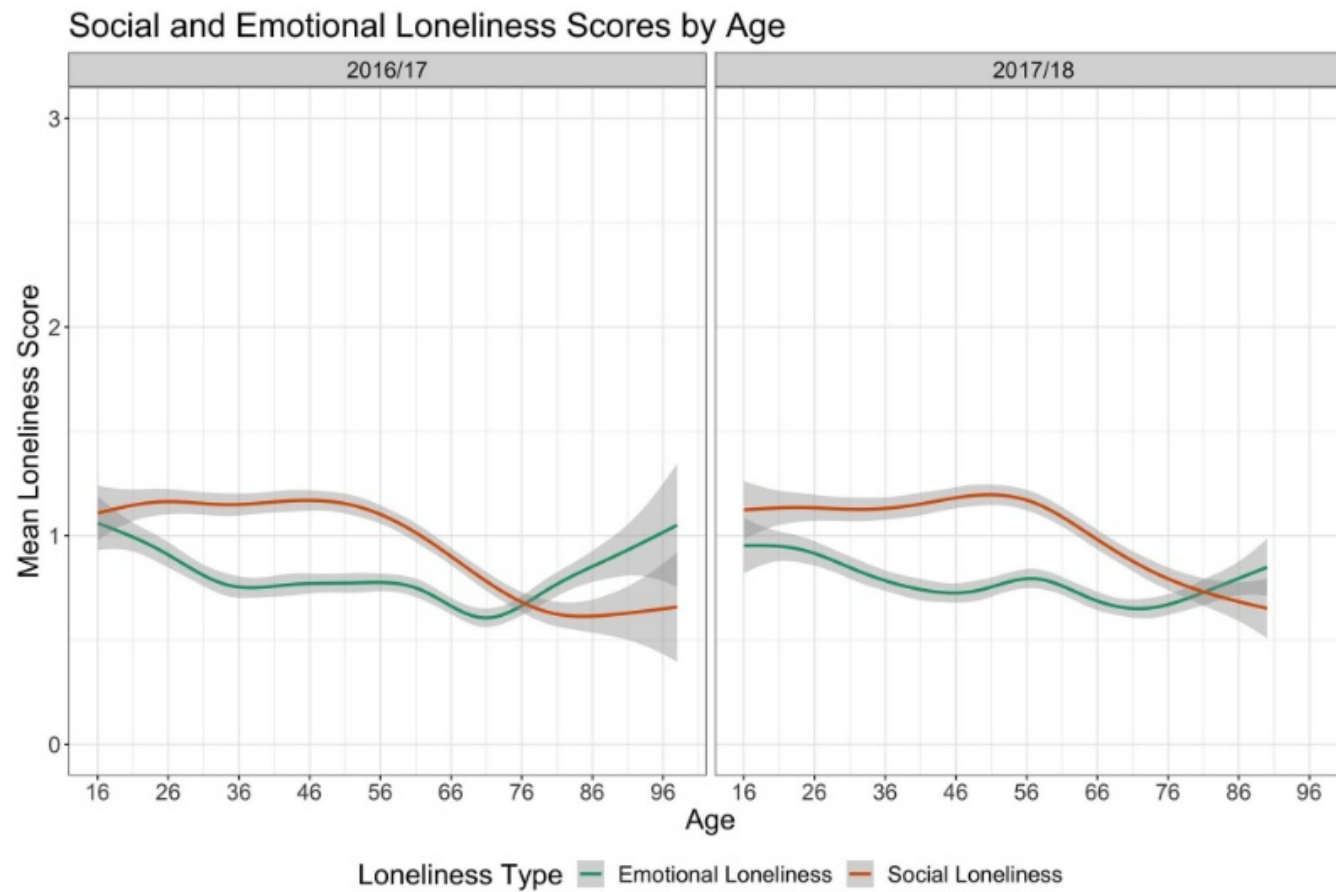
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Lifespan



social vs emotional



(Manoli et al. 2022)



Interventions



Are interventions effective?

- Sometimes, but not always.
- Effect sizes are modest.
- Not a one-size-fits-all solution.
- We lack a clear mechanistic understanding to guide interventions.



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(Larsgaard et al. 2025; Masi et al. 2011; Morrish et al. 2023)

Take a break



Part 2 - Read and discuss



Discussion material

- break into small groups (~ 5 per group)
- discuss aspects of the lecture
- discuss aspects of these articles:

Is loneliness worse than smoking 15 cigarettes a day?:

BBC's 'More or less' radio programme

There is **NOT** an epidemic of loneliness:

Psychology Today

The Conversation

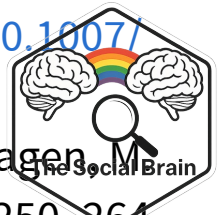


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