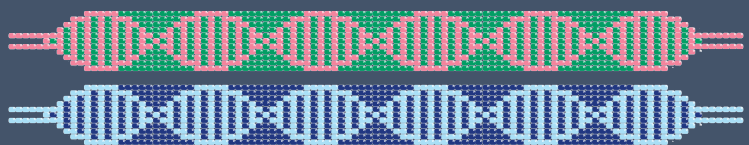
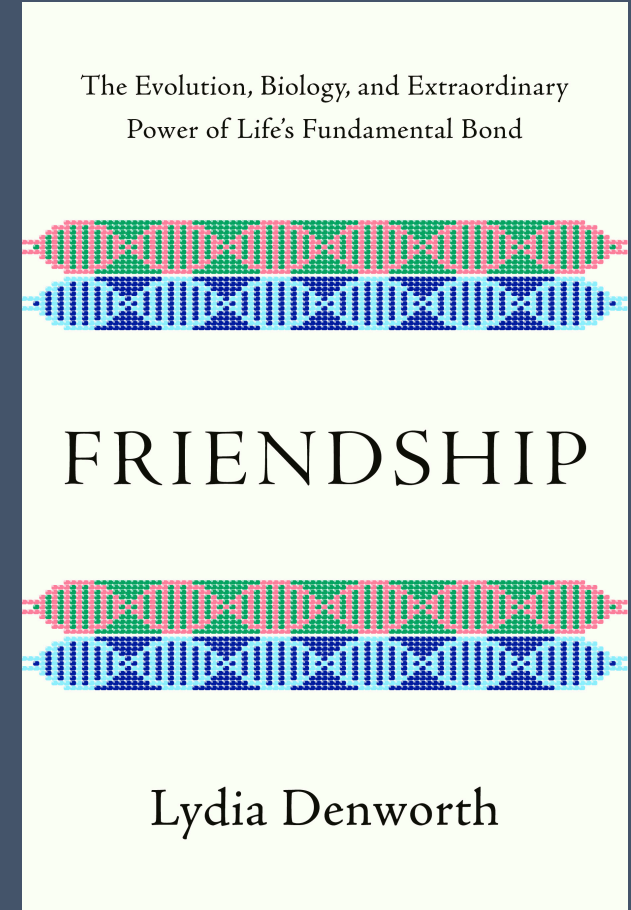
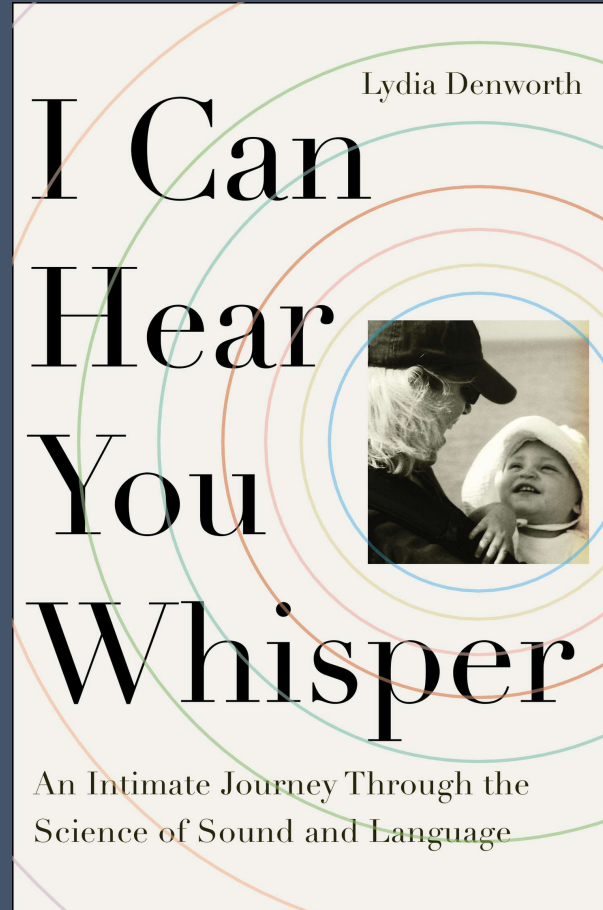
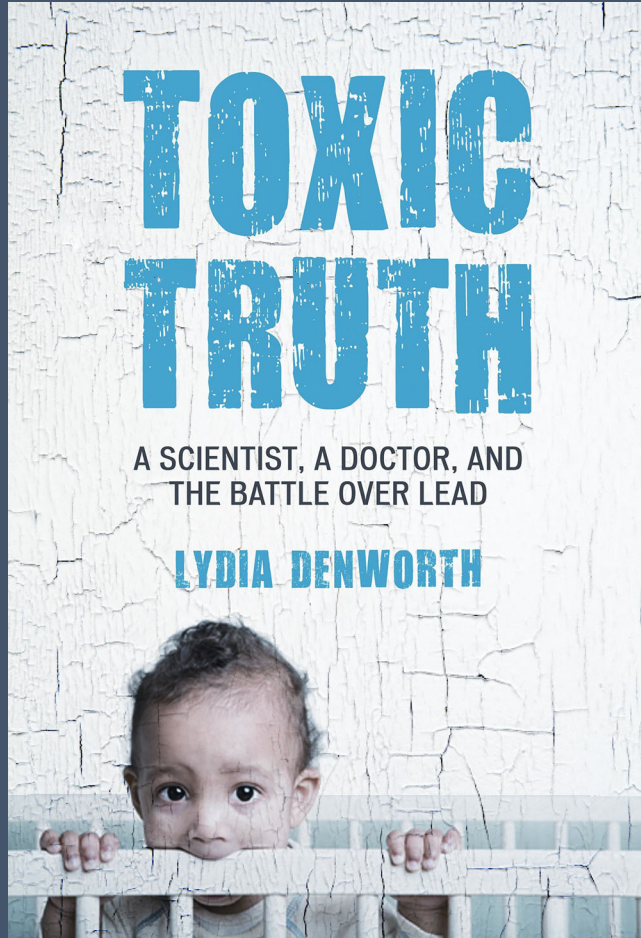


# The Science of FRIENDSHIP



Lydia Denworth



# Origins of a New Science

Appreciating Relationships

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# Mothers and Babies





Relationships  Repeated interactions, shared history, evolving content

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# The F-Word

But Friendship?

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“Can animals be friends?”

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# How Did We Figure It Out?

Defining Friendship

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“A friend helps you move.  
A good friend helps you  
move **a body**.”

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Long-lasting



Positive

Cooperative

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# The Link to Health

Looking for Evidence

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## The benefits of social capital: close social bonds among female baboons enhance offspring survival

Joan B. Silk<sup>1,\*</sup>, Jacinta C. Beehner<sup>2,3</sup>, Thore J. Bergman<sup>2,4</sup>,  
Catherine Crockford<sup>5</sup>, Anne L. Engh<sup>6</sup>, Liza R. Moscovice<sup>7</sup>,  
Roman M. Wittig<sup>5</sup>, Robert M. Seyfarth<sup>6</sup> and Dorothy L. Cheney<sup>7</sup>

<sup>1</sup>Department of Anthropology, University of California, Los Angeles, CA 90095, USA

<sup>2</sup>Department of Psychology, <sup>3</sup>Department of Anthropology, and <sup>4</sup>Department of Ecology and Evolutionary Biology, University of Michigan, Ann Arbor, MI 48109, USA

<sup>5</sup>School of Psychology, University of St. Andrews, St. Andrews KY16 9JF, UK

<sup>6</sup>Department of Biology, and <sup>7</sup>Department of Psychology, University of Pennsylvania,

## Social Relationships and Health

James S. House; Karl R. Landis; Debra Umberson

*Science*, New Series, Vol. 241, No. 4865 (Jul. 29, 1988), 540-545.

Stable URL:

<http://links.jstor.org/sici?sici=0036-8075%2819880729%293%3A241%3A4865%3C540%3ASRAH%3E2.0.CO%3B2-2>



## Loneliness Matters: A Theoretical and Empirical Review of Consequences and Mechanisms

Louise C. Hawkey, Ph.D. • John T. Cacioppo, Ph.D.

Published online: 22 July 2010

© The Society of Behavioral Medicine 2010

## Social Bonds of Female Baboons Enhance Infant Survival

Joan B. Silk,<sup>1\*</sup> Susan C. Alberts,<sup>2,4</sup> Jeanne Altmann<sup>3,4,5</sup>

[www.sciencemag.org](http://www.sciencemag.org) SCIENCE VOL 302 14 NOVEMBER 2003

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PLOS MEDICINE

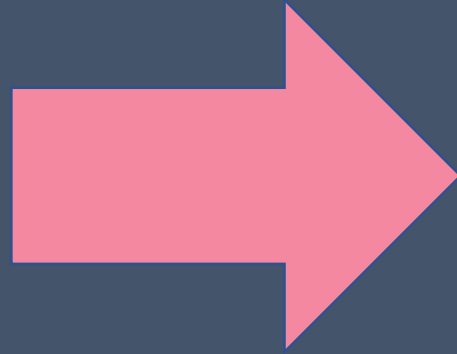
## Social Relationships and Mortality Risk: A Meta-analytic Review

Julianne Holt-Lunstad<sup>1,\*</sup>, Timothy B. Smith<sup>2,3</sup>, J. Bradley Layton<sup>3</sup>

<sup>1</sup> Department of Psychology, Brigham Young University, Provo, Utah, United States of America, <sup>2</sup> Department of Counseling Psychology, Brigham Young University, Provo, Utah, United States of America, <sup>3</sup> Department of Epidemiology, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina, United States of America



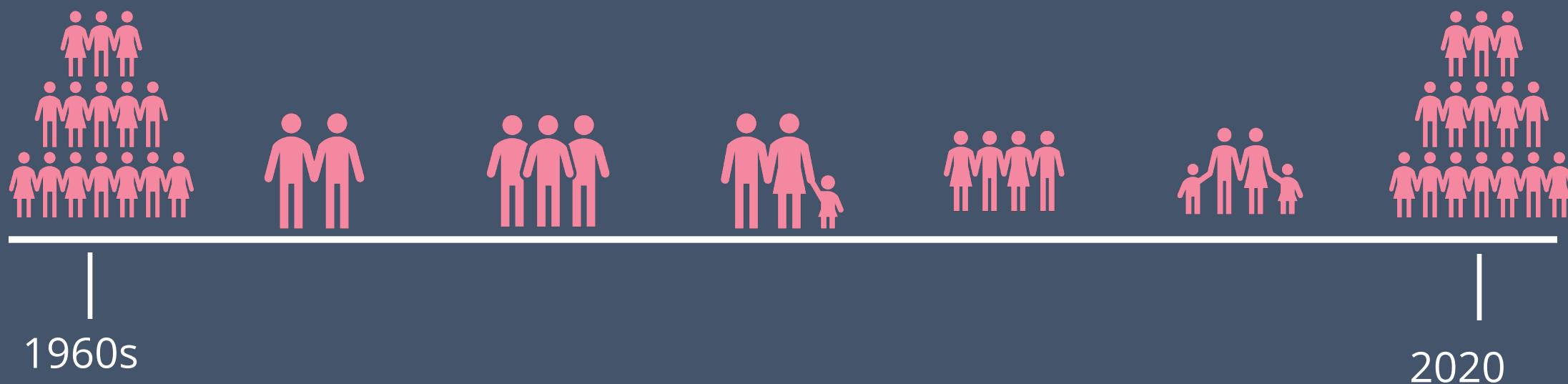
Infectious  
disease



Cancer, heart  
disease, stroke etc.

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# Studying Risk Factors Over Time





Are you  
married?



Do you belong  
to a church or  
social  
organization?

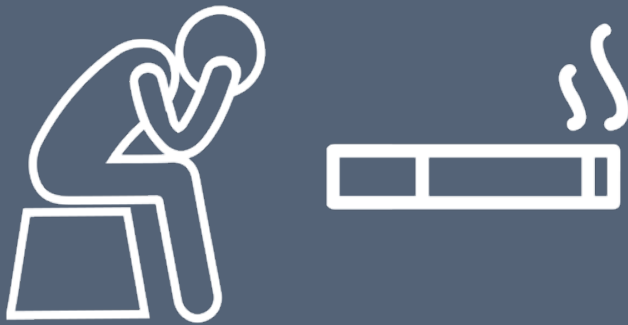


How many  
times a month  
do you see  
family?  
Friends?



Fewer social ties in 1965 . . .  
more likely to have died by 1974

Source: Berkman and Syme, 1979



Social isolation and smoking:  
double the risk of mortality

Source: House et al, 1988

# Loneliness associated with Earlier Death

Social isolation:	26%
Loneliness:	29%
Living Alone:	32%

Source: Holt-Lunstad et al, 2015





Photo: Anne Engh



Sylvia

Strongest  
social  
bonds



Increased longevity,  
more and healthier  
babies

# Why?

What is friendship doing inside the body?

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Psychological = Biological

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Loneliness



Social Isolation



Solitude



## Friendship Under the Skin

- Cardiovascular functioning
- Immune system
- Sleep quality
- Mental health
- Cognitive health
- Stress responses
- Rate of cellular aging



# What Does It Look Like?

Friendship Across the Lifespan

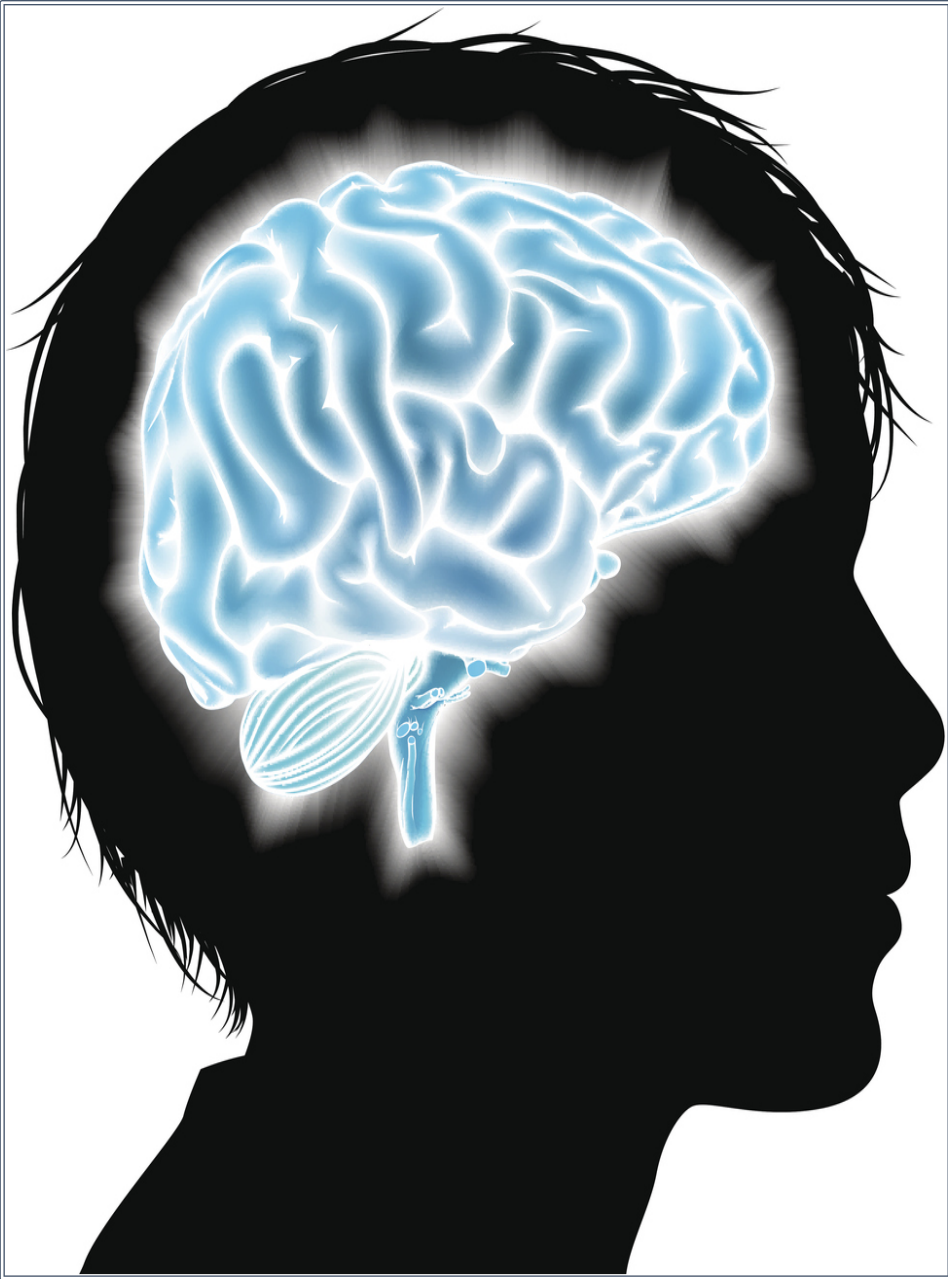
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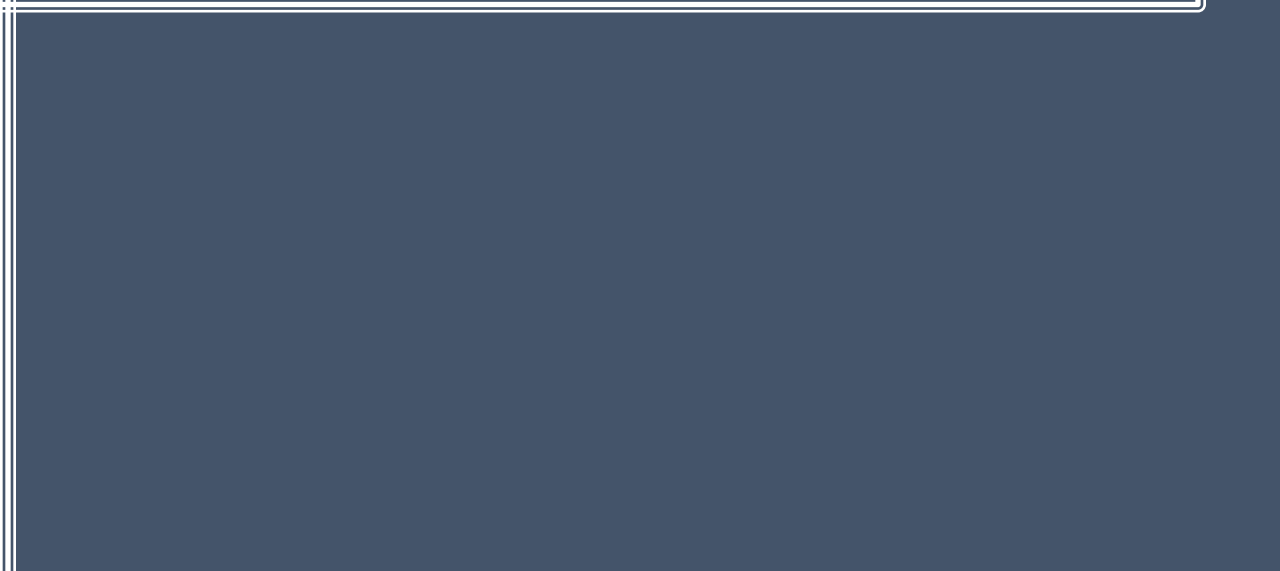


# Adolescent Brain Development

- Age 10 to 25
- Emotion outrunning judgment
- Growing sense of self
- Sensitive to acceptance and rejection
- Friends, friends, friends











# Time with Friends

30%

Adolescents

4%

Adults 40 to 65

8%

Adults over 65

# The Circles of Friendship



Quality matters most.

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What are friends for?

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Spouse?

Sibling?

Friend?

# Be a good friend



Be positive



Be reliable



Be helpful

# Time to Make a Friend

50

hours

Friend

90

hours

Good Friend

200

hours

Best Friend





## 36 Questions that lead to . . . friendship

- What would constitute a perfect day for you?
- What do you value most in a friendship?
- What, if anything, is too serious to be joked about?









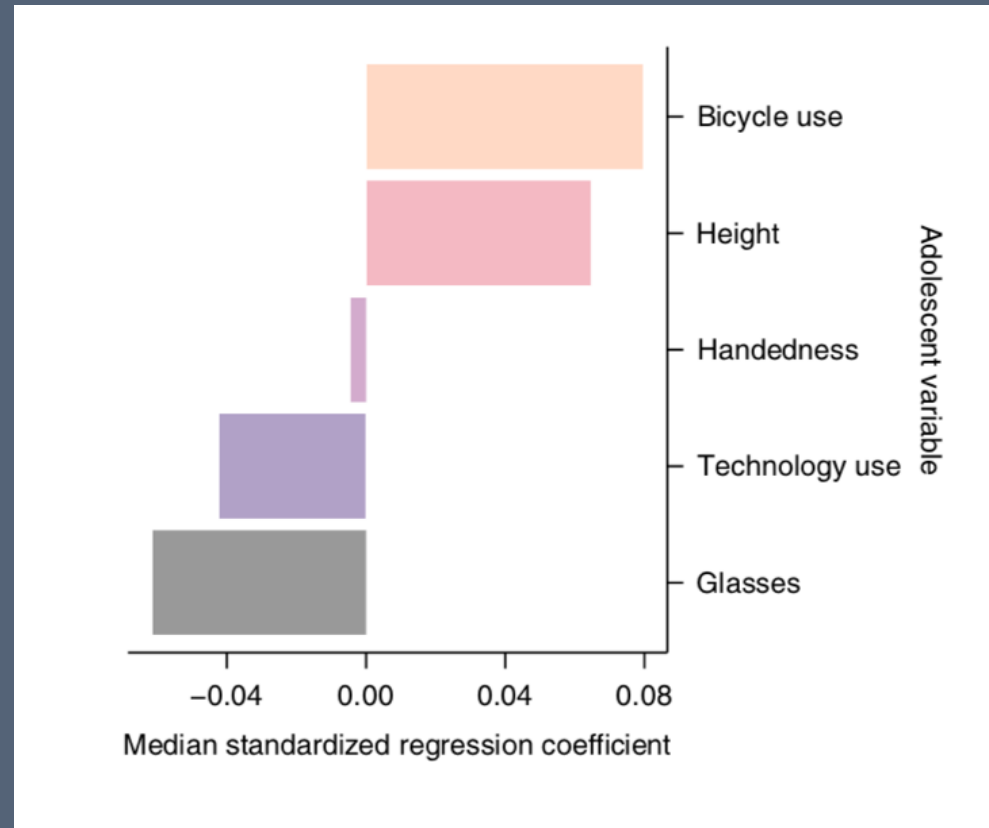


- Social media has positive and negative tradeoffs for well-being
- All effects are small
- Largest effect is positive and it's on relationships

Source: Jeff Hancock, Stanford University, 2019

“The more media we use to maintain a relationship, the **stronger** that bond is likely to be.”

# The link between digital technology use and adolescent well-being



Source: Orben et al, 2019



# Friendship During a Crisis

- Friends **protect** us from the lions.
- Social support is essential for **resilience**.



# Takeaways

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Best predictor of health  
at 80?

Relationships at 50!





# THANK YOU!

Q + A

Contact:

[LydiaDenworth.com](http://LydiaDenworth.com)

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For Bonus Content:

Webinar Materials

Friendship: The Playbook

36 Questions That Lead to . . . Friendship

[LydiaDenworth.com/friendship-webinar](http://LydiaDenworth.com/friendship-webinar)

