MEASURING RESILIENCE IN DIVERSE POPULATIONS: FINDINGS FROM LONGITUDINAL HEALTH SURVEYS

MILES G. TAYLOR & DAWN C. CARR

DEPARTMENT OF SOCIOLOGY

PEPPER INSTITUTE ON AGING AND PUBLIC POLICY
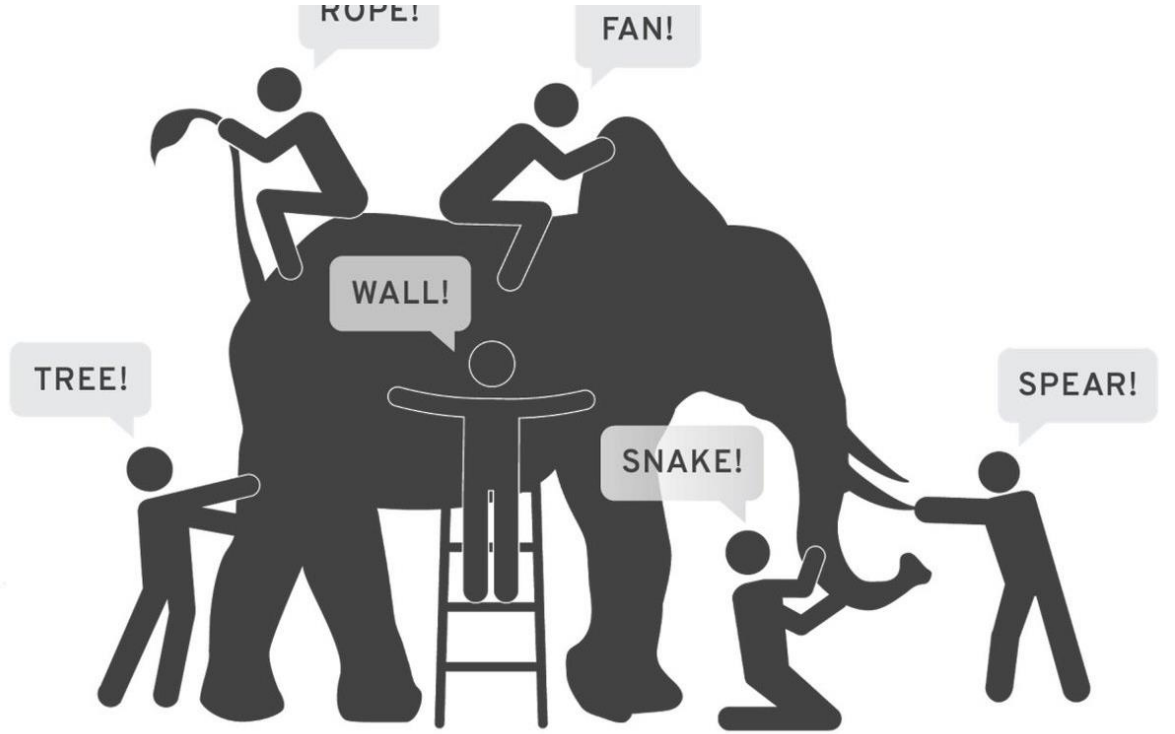
CLAUDE PEPPER CENTER

WHAT IS RESILIENCE?

WHAT IS SCIENCE'S DEFINITION OF RESILIENCE?

FOUNDATIONAL EVIDENCE

Inspired by colleague Manning

- Qualitative interviews on 60 older adults (30 African American/30 White) living in the South
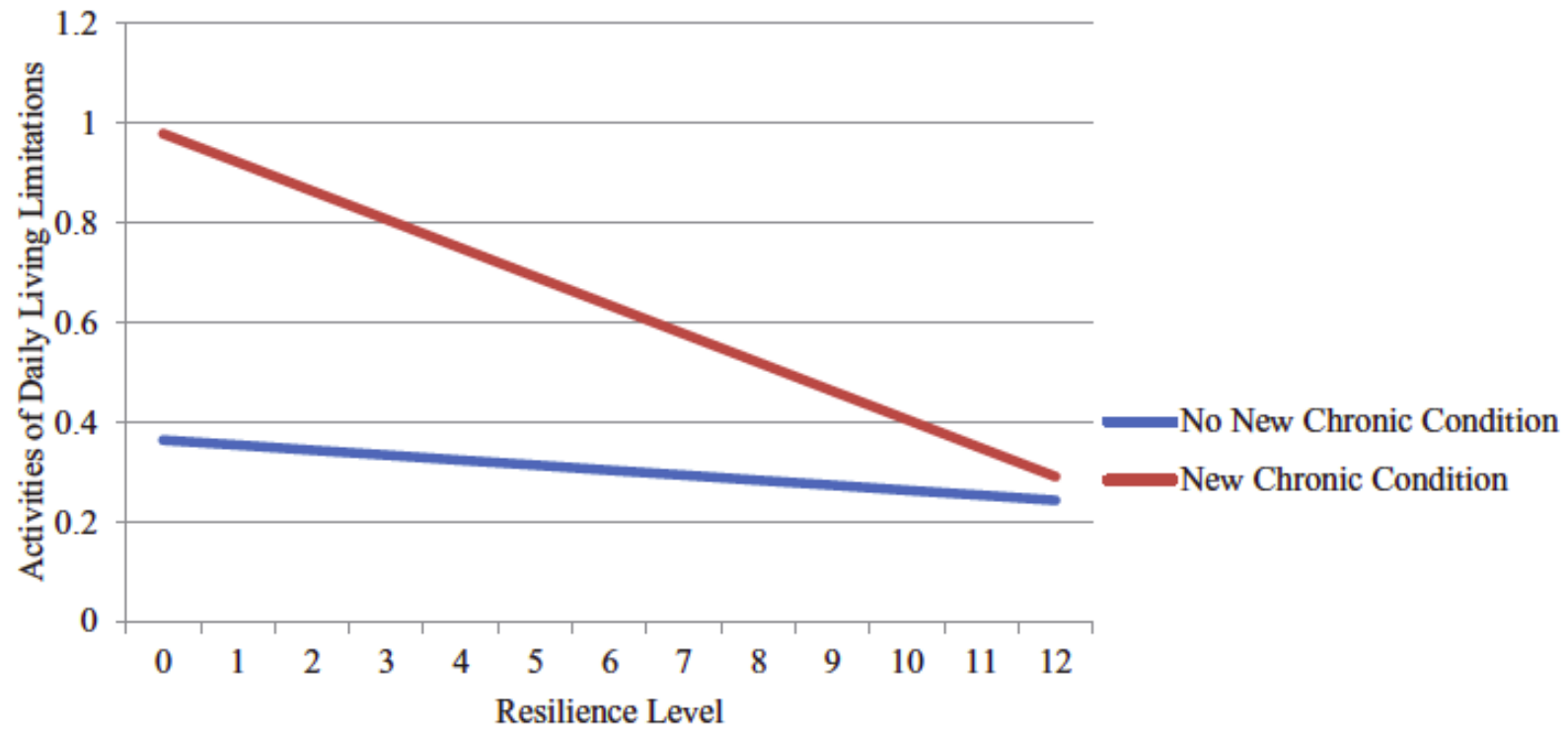- Meaning of resilience, and what made them "resilient"

Wagnild and Young Scale (clinical measure)

Limitation: unable to evaluate at population-level

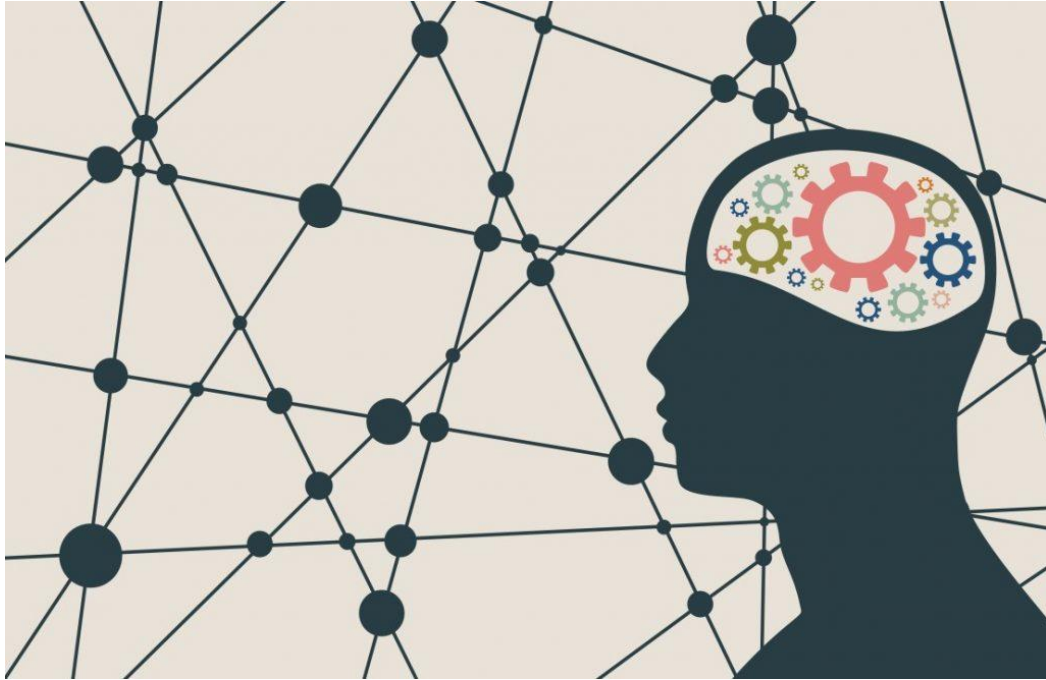# LEVERAGING NATIONAL LONGITUDINAL DATA

- Health and Retirement Study (HRS)
  - Longitudinal study of adults 51+ collected every two years
  - Psychosocial factors collected starting in 2006

MANNING, CARR, KAIL (2016)

RESILIENCE MIGHT BE DIFFERENT OR WORK DIFFERENTLY ACROSS GROUPS

- Manning's qualitative work suggested higher resilience may be related to structural/individual stressors over the life course

- **What if PR has *adverse* connections to health in the context of injustices and resource deprivation?**

GROUP DIFFERENCES HAVE NOT BEEN ROBUSTLY EVALUATED

- PR may represent environmentally or stressor-specific resources
  - Activated depending on circumstances
  - Influenced by external sources
  - Culturally specific resources
- Comparing resilience across groups requires **measurement testing** across groups

OUR GOAL: *WHEN AND FOR WHOM IS PR A HEALTH RESOURCE?*

- Our preliminary work suggests:
  - Robust associations with health in later life
  - Initial benefits in young adulthood
- Need: validated measures for large existing survey data at multiple life course stages
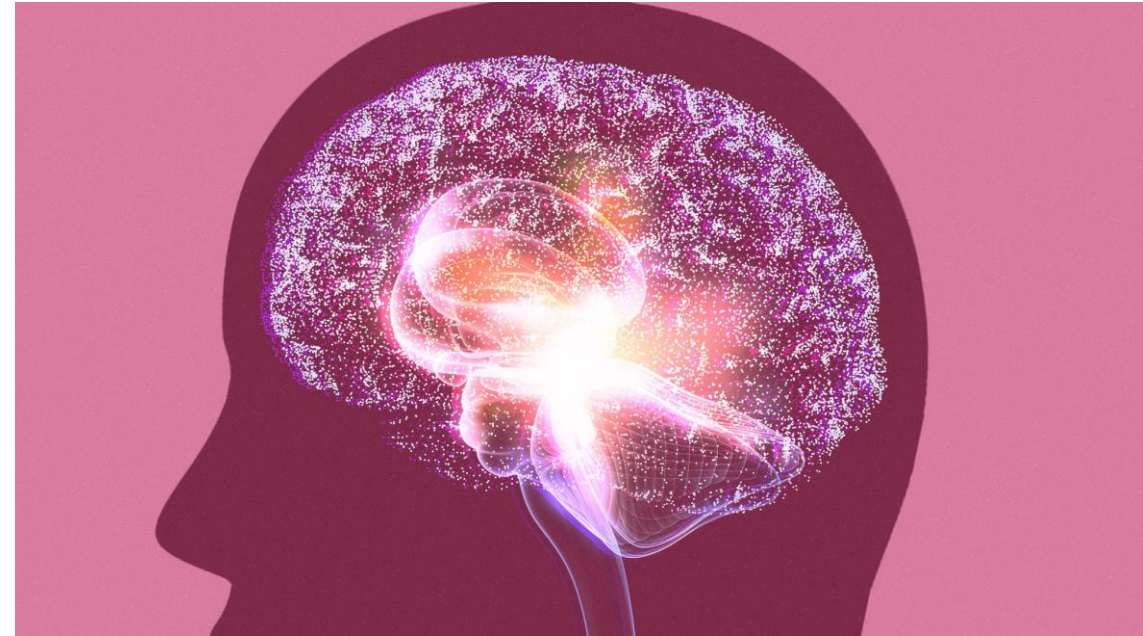
DATA

Two large, longitudinal, nationally representative and diverse data sources to study resilience

- ***Health and Retirement Study (HRS)***, biennially longitudinal
  - Adults 51+, given to random half of respondents starting in 2006
- ***National Longitudinal Study of Adolescent to Adult Health (Add Health)***
  - Children grades 7-12 sampled in 1994/95.
  - Wave 4 (2008) - individuals were ages 24-34

Both datasets allow us to evaluate how PR "works"

- Protective vs. harmful for health and wellbeing overall,
- Exposure to stressors, and other resources (internal and external)

MEASURES

- Simplified Resilience Score (SRS) – HRS (Manning, Carr, and Kail, 2016)

- Add Health Resilience Scale (AHRS) – based on the SRS - Add Health (Bruefach et al., 2021)

- Demographic groups:

  - Race/Ethnicity (White/Black/Hispanic)

  - Gender (Male/Female)

  - Education (College/Less than College)

Simplified Resilience Score (SRS)

1. I can do the things I want to

2. I am satisfied with my life

3. The future seems hopeless to me, and I can't believe that things are changing for the better.[a]

4. In most ways, my life is close to ideal.

5. So far, I have gotten the important things I want in life.

6. What happens in my life is often beyond my control.[a]

7. When I really want to do something, I usually find a way to succeed at it.

8. I feel it is impossible for me to reach the goals that I would like to strive for.[a]

9. If something can wrong for me, it will

10. I can do just about anything I set my mind to.

11. I have a sense of direction and purpose in life.

12. There is really no way I can solve the problems I have.[a]

Add Health Resilience Scale (AHRS)

1. Other people determine most of what I can and cannot do.[a]

2. I am not easily bothered by things.

3. I hardly ever expect things to go my way.[a]

4. I'm always optimistic about my future.

5. There is little I can do to change the important things in my life.[a]

6. I have little control over the things that happen to me.[a]

7. I get stressed out easily.[a]

8. In the last 30 days, how often have you felt that difficulties were piling up so high that you could not overcome them?[a]

9. I rarely count on good things happening to me.[a]

10. I go out of my way to avoid having to deal with problems in my life.[a]

11. Overall, I expect more good things to happen than bad.

12. There is really no way I can solve the problems I have.[a b]

ANALYTIC MODELS

Structural Equation Modeling

Confirmatory Factor Analysis (CFA) (RQ#1)

Multiple Group CFA (RQ#2)

Configural (Overall), Metric (Factor Loadings), Full and Partial Scalar (Intercepts of Indicators) Invariance was tested

Statistical differences determined by equality constraints and differences in overall model fit (Chi-Square, CFI, TLI, RMSEA)

Mean (SD)/Prop	Simplified Resilience Score (N = 14,064)	Add Health Resilience Scale (N = 4,936)
Resilience	9.16 (1.85)	3.74 (0.48)
Race/Ethnicity		
Non-Hispanic White	0.83	0.65
Non-Hispanic Black	0.13	0.25
Hispanic	0.04	0.11
Gender		
Female	0.58	0.54
Male	0.42	0.46
Education		
Bachelor's Degree or Higher	0.21	0.32
Less Than a Bachelor's Degree	0.79	0.68
Age	68.91 (9.87)	28.88 (1.77)

SRS AND ARHS PERFORM WELL OVERALL AND ACROSS SOCIAL AXES

- Tests of Overall Model fit were very good, suggesting construct validity overall

- Configural and Metric Invariance **WERE** met

- Full Scalar Invariance **WAS NOT MET** for social axes in the AHRS and Black-Hispanic comparison in the SRS

- Partial Scalar Invariance **WAS** met, suggesting differences between groups "cancel out" with some intercepts both higher and lower across groups (e.g. men and women)

KEY FINDINGS FOR MEASUREMENT OF PR

Overall, the SRS and the AHRS perform well

Partial Scalar Invariance similar to other instruments (CESD)

We argue **against** a "one size fits all" or universally positive conceptualization of PR

Socially and culturally relevant sources of resilience and adaptation need further evaluation

HOW THESE MEASURES CAN INFORM RESILIENCE WORK

1

Composite measures capture a "constellation" of diverse internal resources

- Can be leveraged to evaluate associations that are population representative
- Allow us to examine different groups/ages

2

Stressor and outcome specific associations can be examined

- Current work – R21

3

Population level results can inform subsequent intervention, clinical, and qualitative work

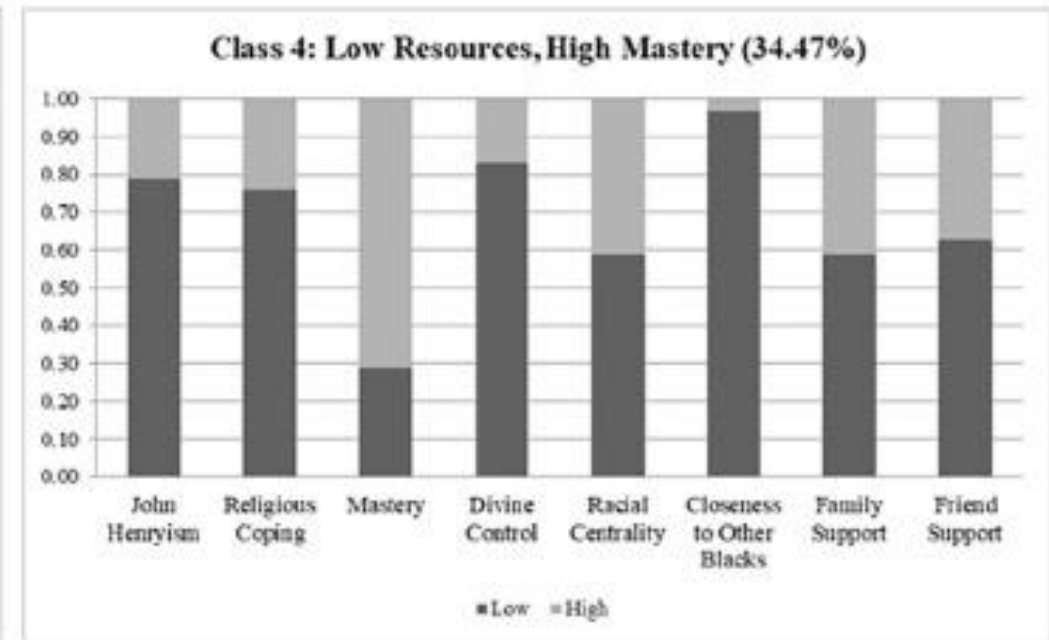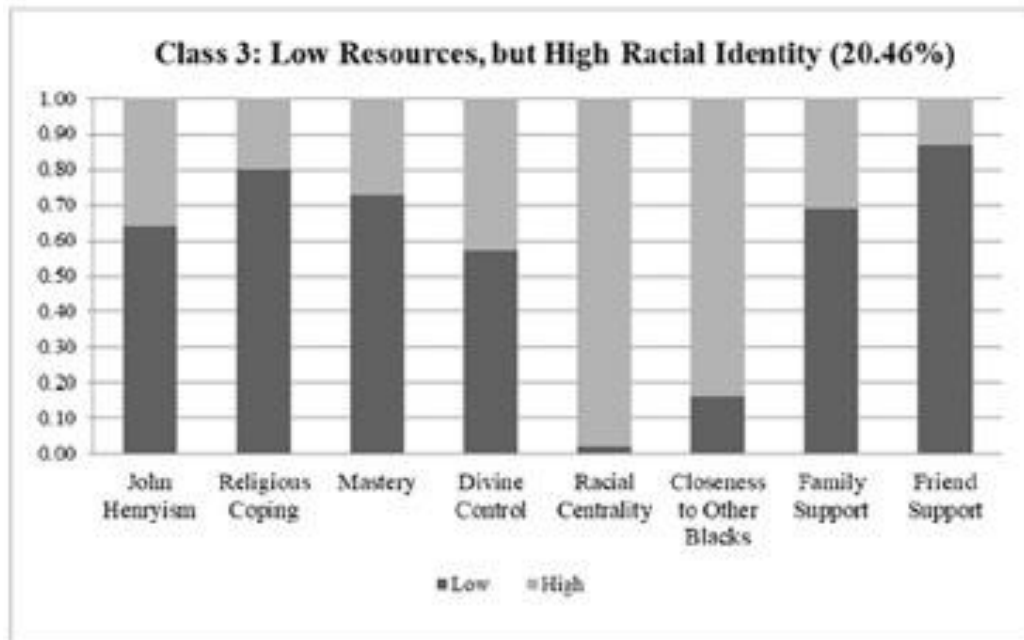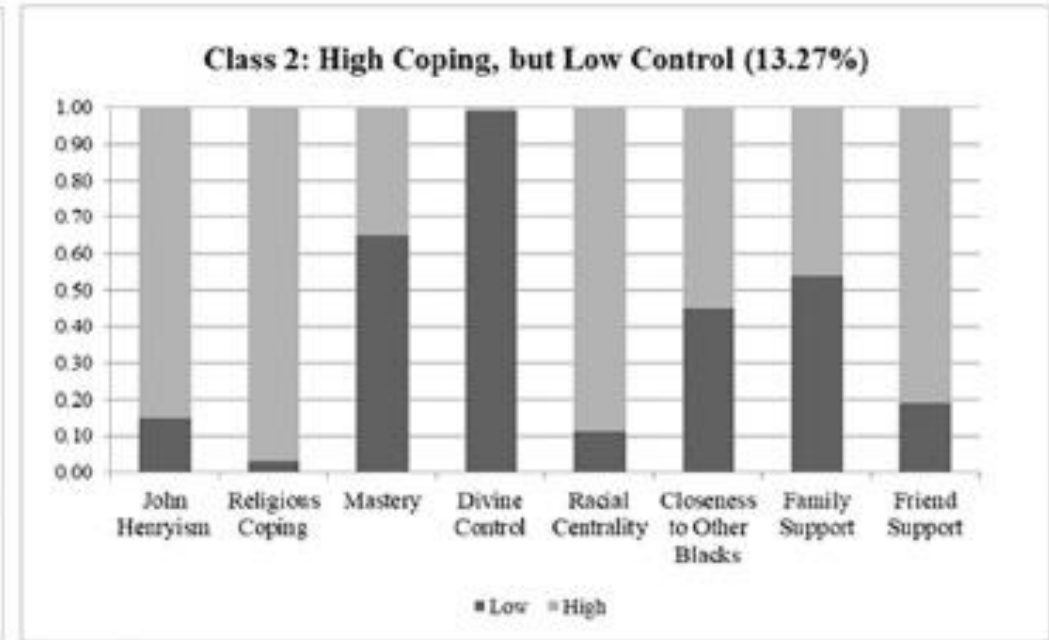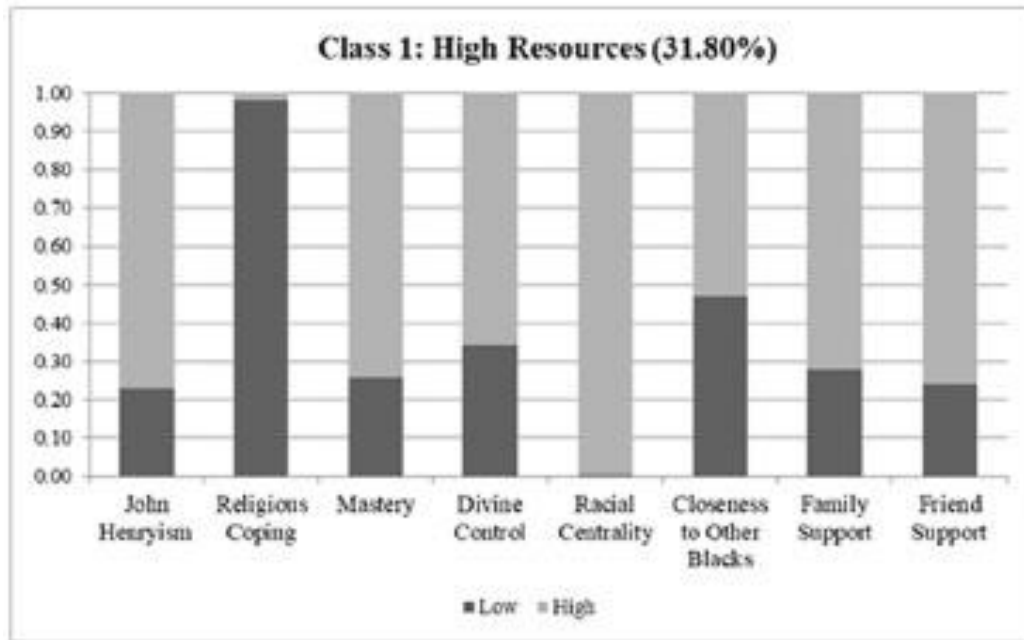- Understanding how people "do" resilience requires other approaches

NEXT STEP: DISPARITIES AND PR

Identify group differences in:

- The factors that predict resilience across groups
- The benefits of resilience across different situations and events
- How benefits of resilience are related to other resources/how people use other resources
  - e.g., Spirituality, identity, and support

Evaluate exposures that shape resilience levels over time for specific social groups

- Mitchell et al. (2020) examine hopefulness as a resource, finding its connection with discrimination promotes different health outcomes (protective/deteriorating) by racial/ethnic group
- Erving, Satcher and Chen (2021) find dynamic effects of different psychological resource factors among AA women in the connection of stress and health

Tobin et al. 2022: group specific sources of resilient coping among AA men, finding nuances and the importance of mastery
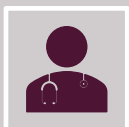
CONCLUSIONS

Population level measures have potential for informing health disparities research

Researchers may consider PR as both a consequence and as a replacement for other resources

More work is needed to determine whether and how PR might be effectively cultivated to support health

THANK YOU!