

Do Changes in Traits Imply Changes in Behavior: A Longitudinal ESM Study

Emorie D Beck & Joshua J Jackson

Washington University in St. Louis



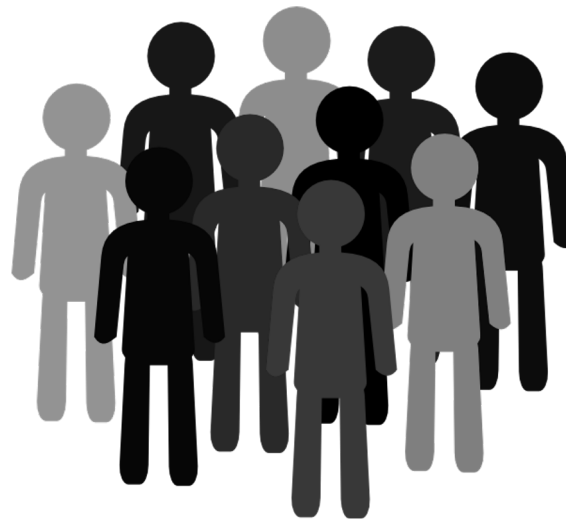
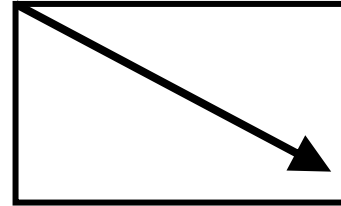
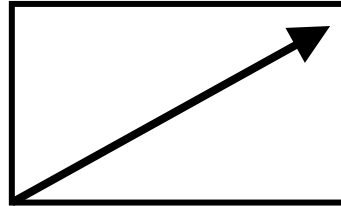
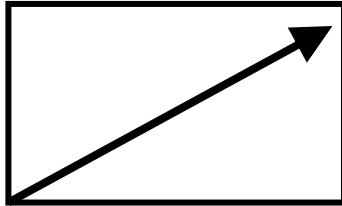
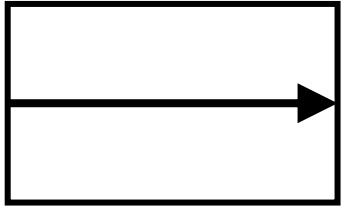
Extraversion

Agreeableness

Conscientiousness

Neuroticism

Openness

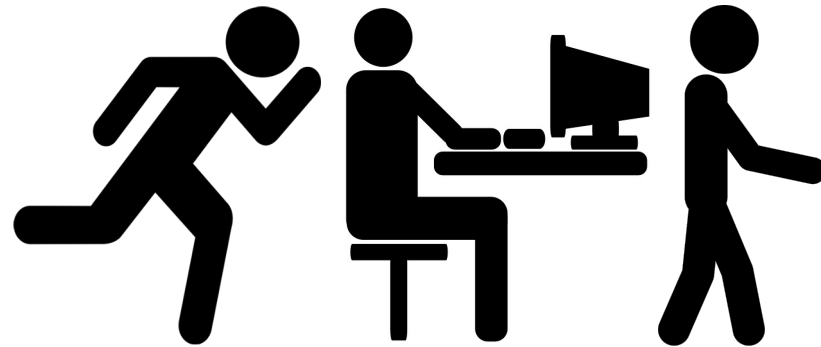
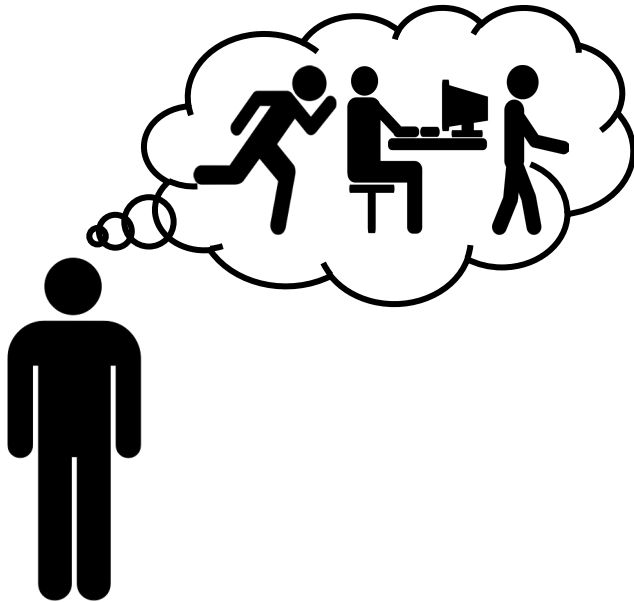


Trait

Mean-Level Personality

Trait

(self-reports)



State

Self-Knowledge

Behaviors

Longitudinal Personality Change

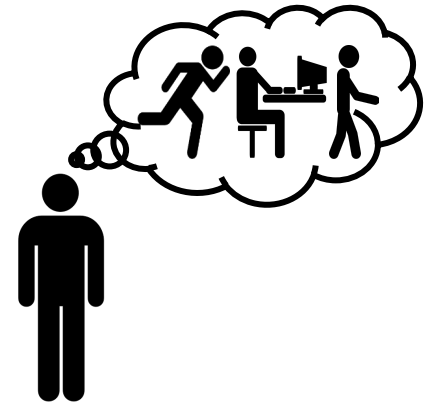
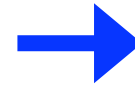
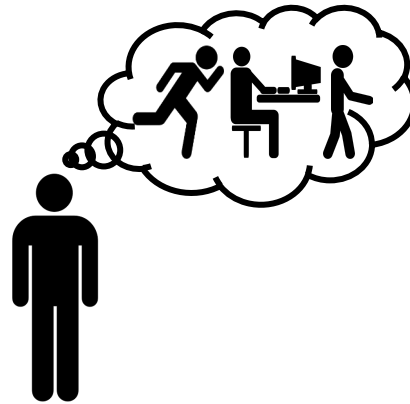
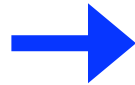
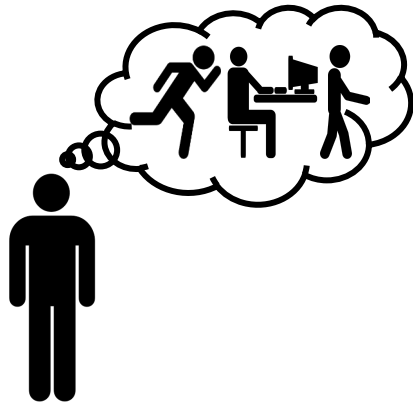
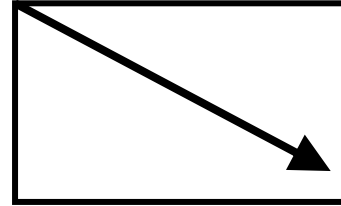
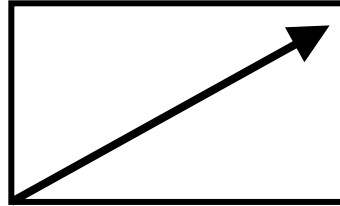
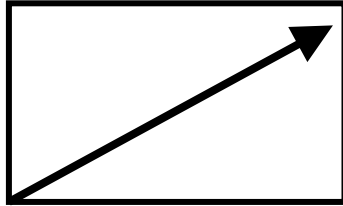
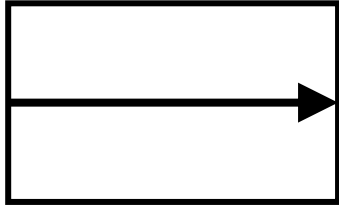
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Openness



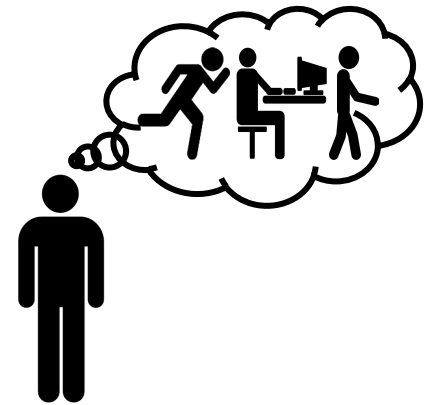
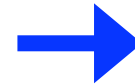
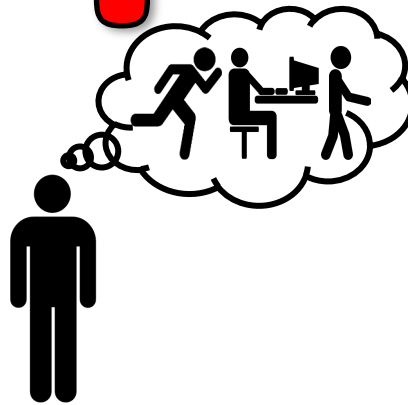
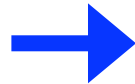
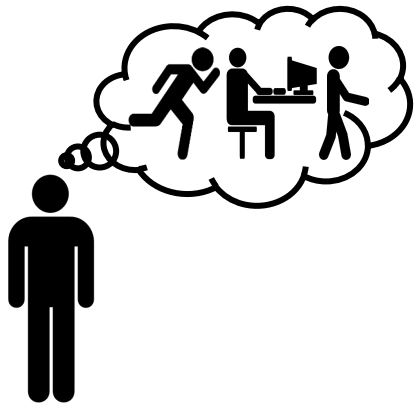
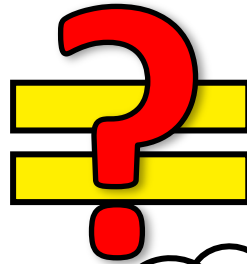
Trait

Self-Knowledge

Longitudinal Personality Change

State

Behaviors



Trait

Self-Knowledge

Longitudinal Personality Change

1. Is there stability in state measures across time?
2. Are there individual differences in change of state measures?
3. Are state and trait change associated with one another?

Methods

3 waves of ESM responses and 7 waves of survey responses from the Personality and Interpersonal Roles Study (PAIRS)

N = 434 Wash U undergrads,

Total ESM assessments N = 18,463 (median = 31 responses)

Total survey assessments N = 1301 (median = 3 responses)

Measures

9 items from the Big Five Inventory (BFI)

Procedure

State: 4 assessments / day for 15 days at 3 time points, 1 year apart

Trait: 1 assessment at 7 time points, 3 months apart

Total Assessment Period: 2 years

Extraversion

Agreeableness

Conscientiousness

Neuroticism

Openness

Trait

T1

Trait

T2

Trait

T3

Trait

T4

Trait

T5

Trait

T6

Trait

T7

2 Years

State

T1

State

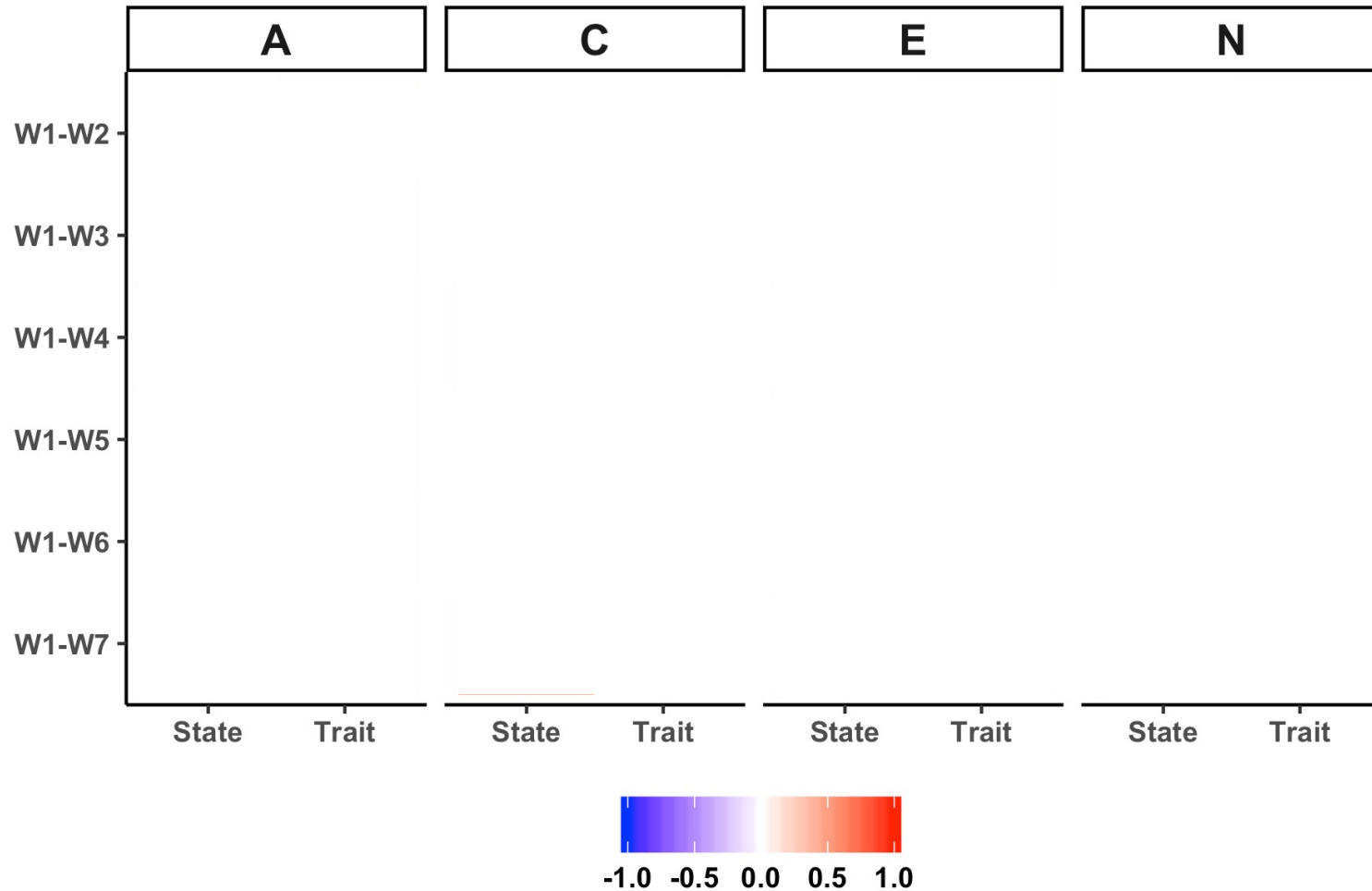
T4

State

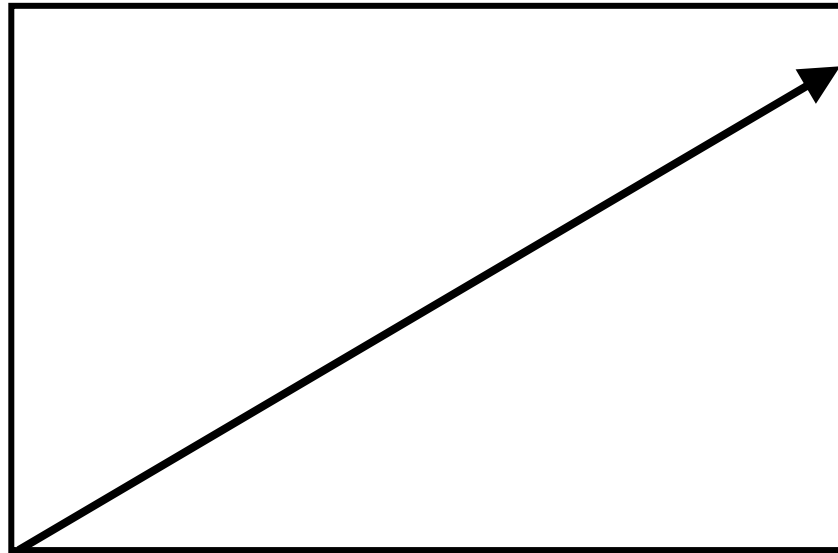
T7

Results

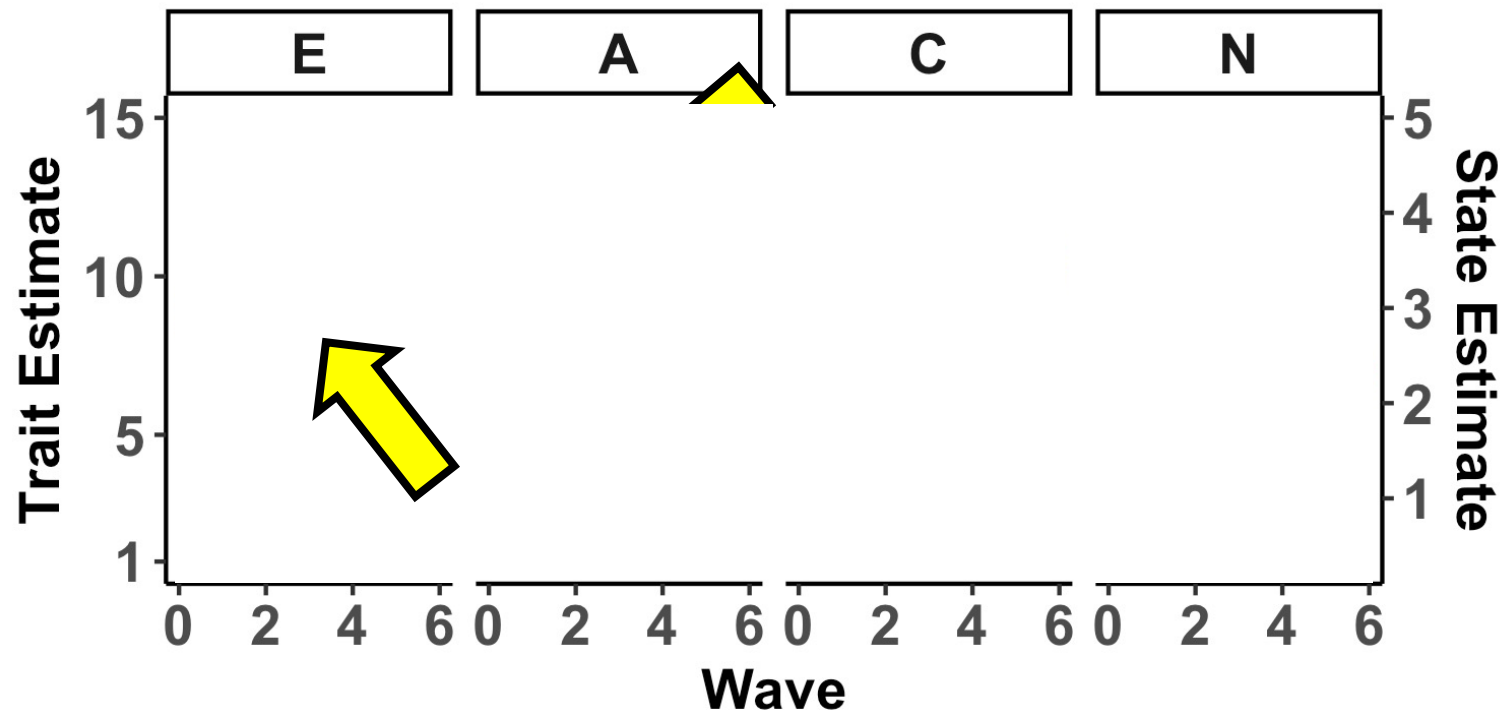
Test-Retest Consistency



Mean Level Change

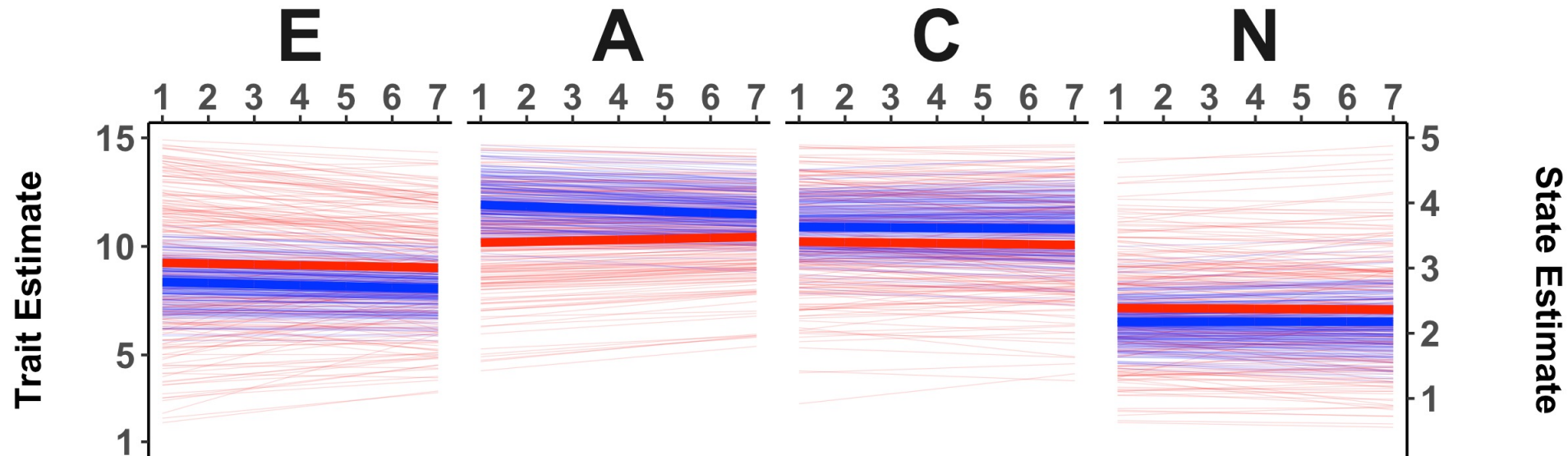


Mean Level Change



Perspective — State — Trait

Slope Variances



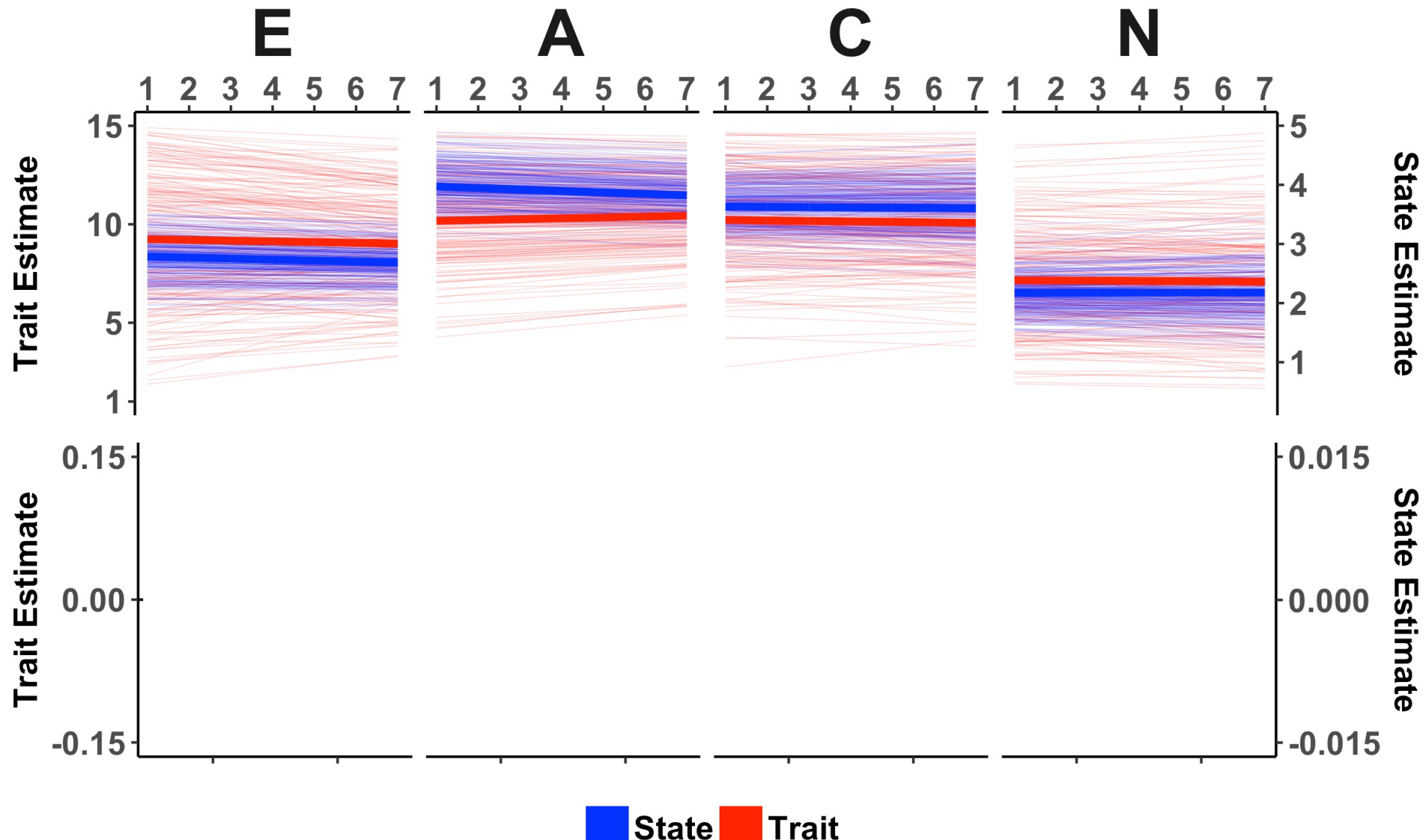
Test-Retest

Mean-Level Change

Slope Variances

Correlated Change

Slope Variances



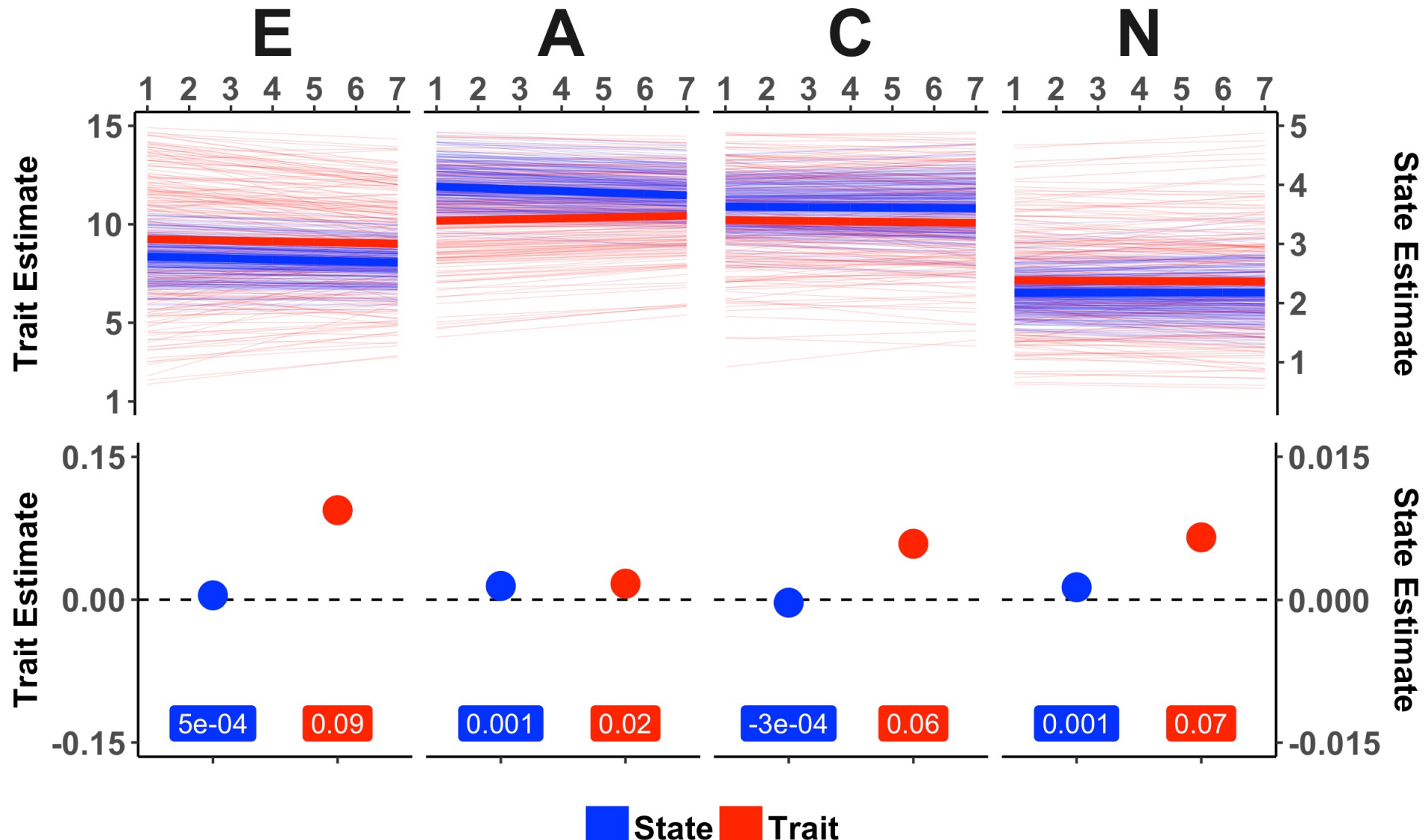
Test-Retest

Mean-Level Change

Slope Variances

Correlated Change

Slope Variances

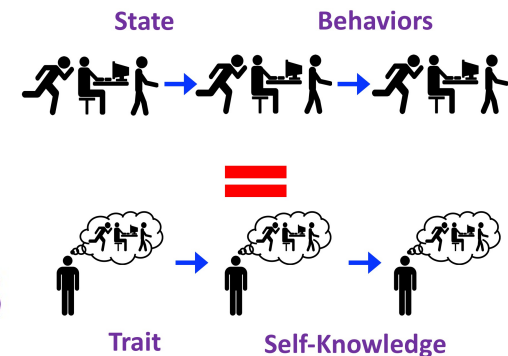


Correlated Change

Trait Slopes

State

Behaviors



State Slopes

-0.50 -0.25 0.00 0.25 0.50

Correlation

E

A

C

N

Conclusions

States can be used to measure personality change.

Mean-level change: not a lot in this sample

Variances: More variability in trait slopes → people think they are more mutable than they are

Correlate Change: Moderate slope-slope correlations
→ change isn't just in your head

Questions?

Special Thanks to:

Josh Jackson

The PMaD Lab

(And the people who
brought us PAIRS data)



Results:

<https://emoriebeck.github.io/Trait-State-Correlated-Change>



Data and Code:

<https://github.com/emoriebeck/Trait-State-Correlated-Change>