

# **Towards A Person-Specific Approach to Measuring Youth Development: A Dynamic Systems Approach**

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# Creating a Useful Model of Human Development

- Researchers and practitioners share a common goal of aspiring to use their knowledge and skills to enhance the lives of individuals, families, and communities.
- This commonality of professional goals should be sufficient motivation to combine their talents in creating research ↔ practice integrations in the service of creating a useful model of human development.
- In past decades, many researchers led practitioners astray because of an absence of humility, the presence of professional arrogance, and the use of models that had proven to be empirically problematic and, as well, counterfactual.

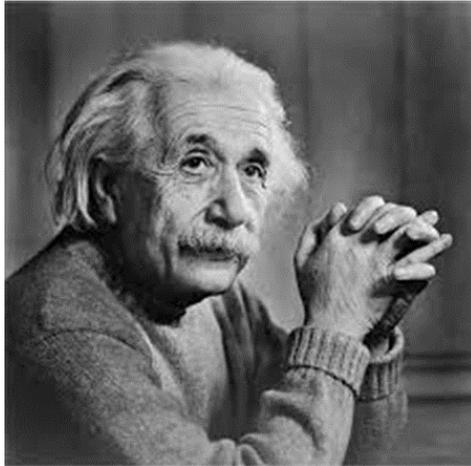
# Creating a Useful Model of Human Development (Continued)

- Biological or environmental reductionist conceptions of human development are examples of such problematic and counterfactual approaches.
- Arnold and Gagnon (2020) make clear, however, there is a useful model of development that has emerged, one that is used in the collaborative work of practitioners and researchers involved in the Science of Learning and Development (SoLD) Alliance, that is:
- **Dynamic, relational developmental systems (RDS)-based ideas.**

# Relational Developmental Systems (RDS)

- RDS is a **metatheory**. A metatheory is a theory or model of how models should be constructed to study the world.
- In RDS metatheory, all levels of organization within the ecology of human development are integrated – from biology/physiology, the socioemotional and cognitive functioning of the individual, social relationships, communities, culture, the physical ecology, and history (temporality).
- In RDS-based theories (models), development across life involves mutually influential individual ↔ context relations (see Lerner, 2018, *Concepts and theories of human development*, 4th ed., published by Routledge, for further discussion of the RDS metatheory).

# The Key Idea In RDS-Based Theories of Human Development: Developmentally-Nurturant Individual ⇔ Context Relations



*“Everybody is a genius. But if you judge a fish by its ability to climb a tree, it will live its whole life believing that it is stupid.”*

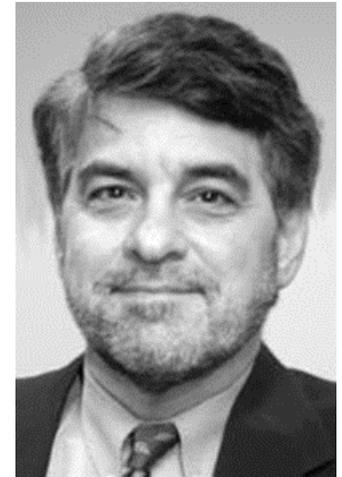
*Albert Einstein*

- Each specific individual and the specific context within which the individual is developing must be ***aligned*** in order to demonstrate a person’s developmental range and potential for thriving.
- There must be aligned individual ⇔ context relations for an individual to thrive.

# Marc Bornstein's Specificity Principle:

## Development Involves Relations Between a *Specific Individual* Occurring at a *Specific Time* and in a *Specific Place*

- The process of development involves mutually influential (dynamic) relations between an individual and that individual's context: Individual ↔ Context Relations.
- The specificity principle emphasizes that specific contextual conditions, of specific people, occurring at specific times, shapes specific facets of development (e.g., physiological, psychological, sociocultural) through specific processes of individual ↔ context coaction.
- The specificity principle emphasizes, then whole-child development AND the individuality of each child's development.



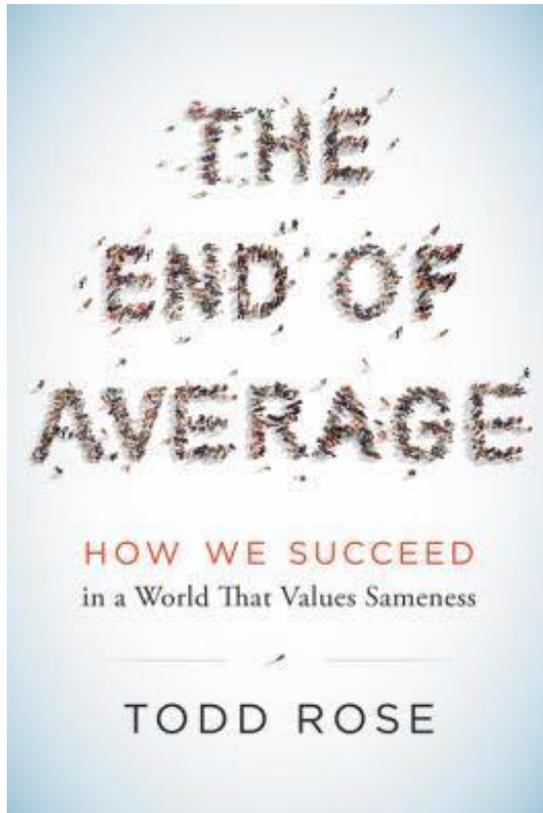
# A Prototypic Use of the Bornstein Specificity Principle to Frame a Multi-Part Question for Understanding Whole-Child Development

- What specific behaviors,
- Of what specific individual,
- In what specific place (context),
- Of what specific duration,
- In what specific community, society, and culture,
- At what specific time in the life span,
- And at what specific time in history
- Will result in what specific features of learning and development?

**IMPLICATIONS:** To study youth development, research must begin with a focus on *changes within specific people*, and not on *relations among variables across people*!

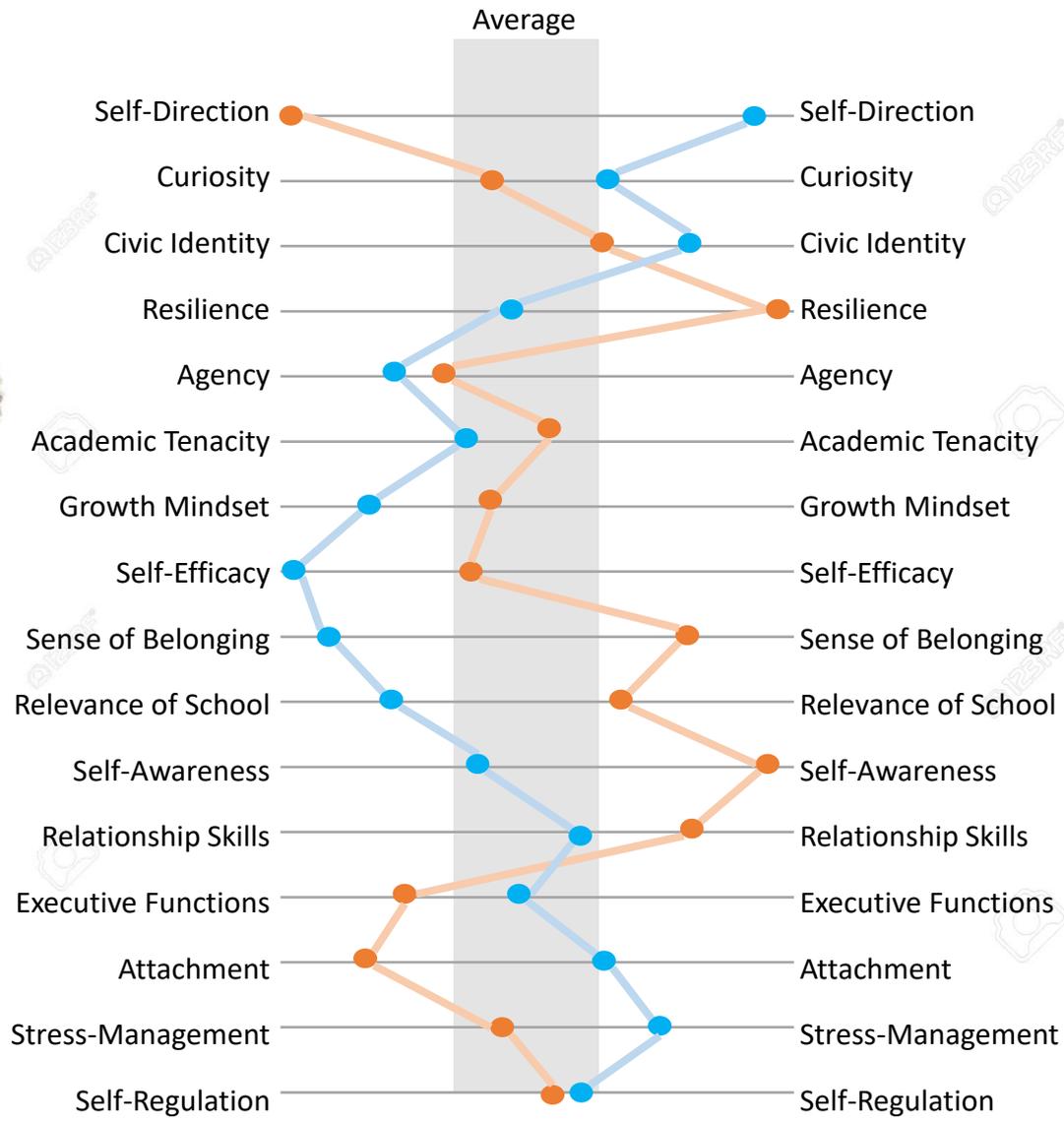
# A Person-Specific Approach to Theory-Based Measurement of Youth Development

- The Science of Learning and Development (SoLD) Alliance
- The Measures and Methods Across the Developmental Continuum (MMDC) Project
  - A collaboration involving the Tufts University Institute for Applied Research in Youth Development, the American Institutes for Research, and Turnaround for Children



# Three Concepts that Go Beyond an Exclusive Focus on Average

1. **Jaggedness**: At any point in time each person has a specific and unique constellation of attributes (e.g., academic, moral, civic, social, and leadership).



# Three Concepts that Go Beyond an Exclusive Focus on Average

2. **Context**: The attributes shown by an individual at any point in time are shaped by the specific context of development.

# Context

- ▶ Monozygotic rodents exposed to different in utero and post-natal experiences.



Slavich & Cole (2013, p.332)

# Three Concepts that Go Beyond an Exclusive Focus on Average

3. **Person-Specific Pathways**: We all walk the road less traveled (every individual will have a specific history of development across time and place).

# **Empirical Examples of the Importance of Analysis of Person-Specific Pathways of Learning and Development**

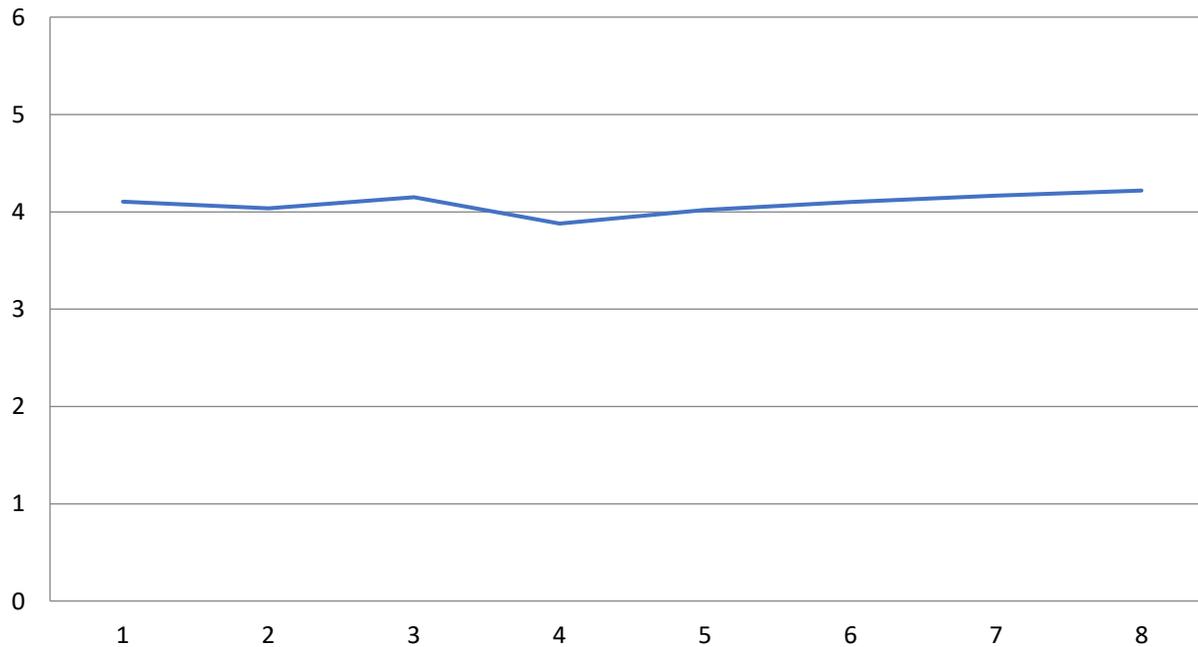
# The Lerner & Lerner 4-H Study of Positive Youth Development

- 8 waves (Grades 5 to 12, respectively), 7087 participants
- Gender: 60.6% Female; 39.4% Male
- Race: 70.7% White; 10.2% Hispanic; 7.9% Black; 3.7% Multiethnic; 3.3% Other; 2.3% Native American; 2.1% Asian
- Mother's education: 33.6% 4-year degree or higher; 37.2% 2-year or technical degree; 20.5% High School; 8.6% less than High School
- Mean per capita income \$15,279.26

*Note that the longitudinal sample presented in these analyses includes all cases with at least 6 waves of data.*

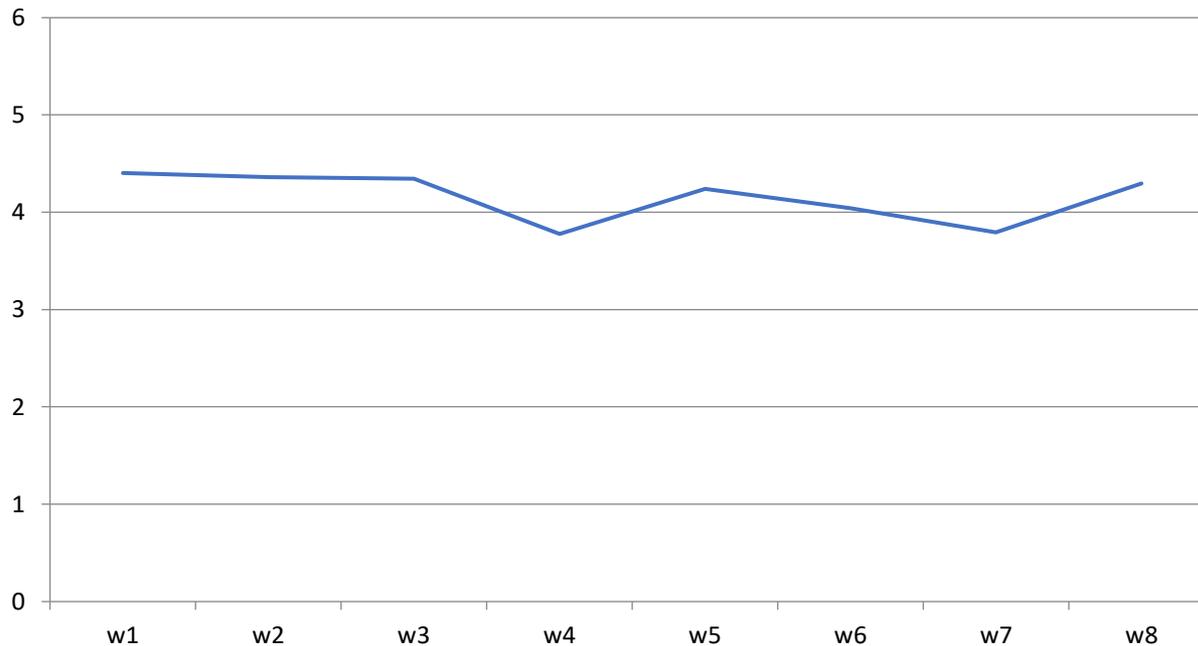
# Goal Optimization Skills:

Full Sample (N = 7,087)



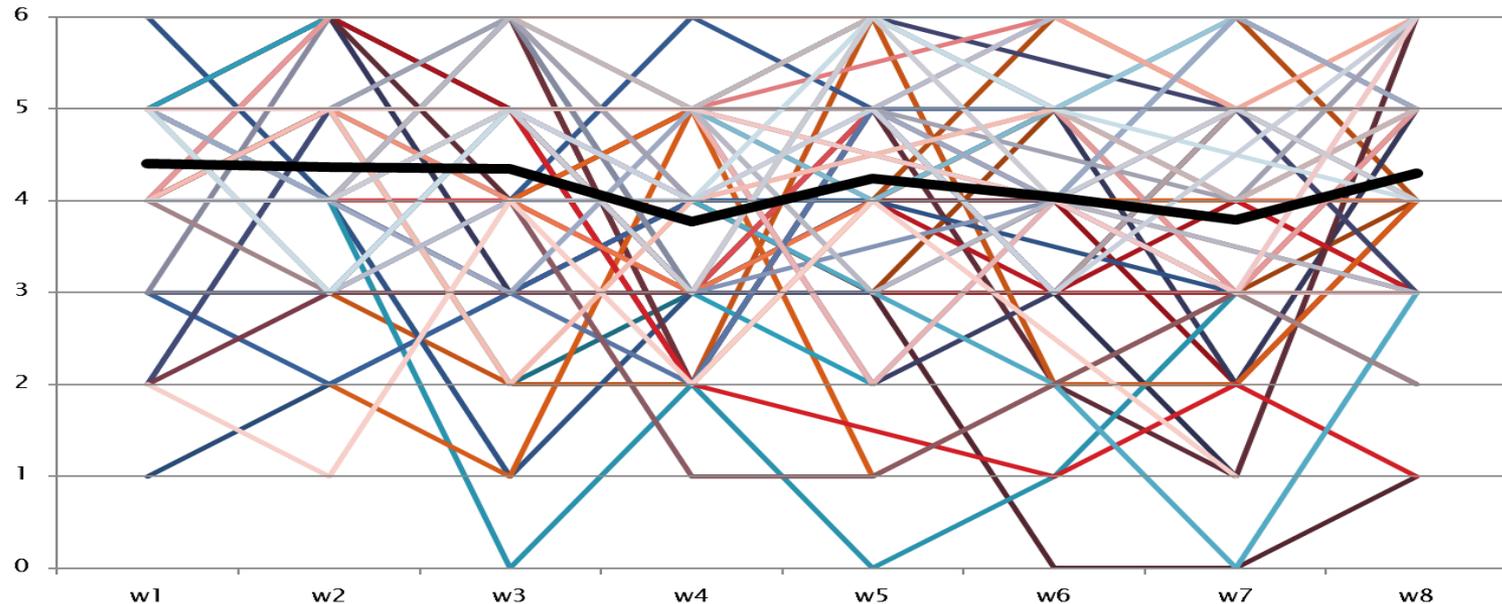
# Goal Optimization Skills:

## Longitudinal Sample Average (N = 59)



# Goal Optimization Skills:

## Person-Specific Pathways for Longitudinal Sample (N = 59)



# **THE SAMPLE CASE OF CHANGE IN DAILY EMOTIONAL EXPERIENCE**

**Data from a Study Conducted by**

**Nilam Ram, Peter Molenaar, and Colleagues  
Developmental Systems Group  
@ PSU**

**and**

**John R. Nesselroade and Colleagues  
Center for Developmental & Health Research Methodology  
@ UVA**

# DATA SET

- ***Participants:***

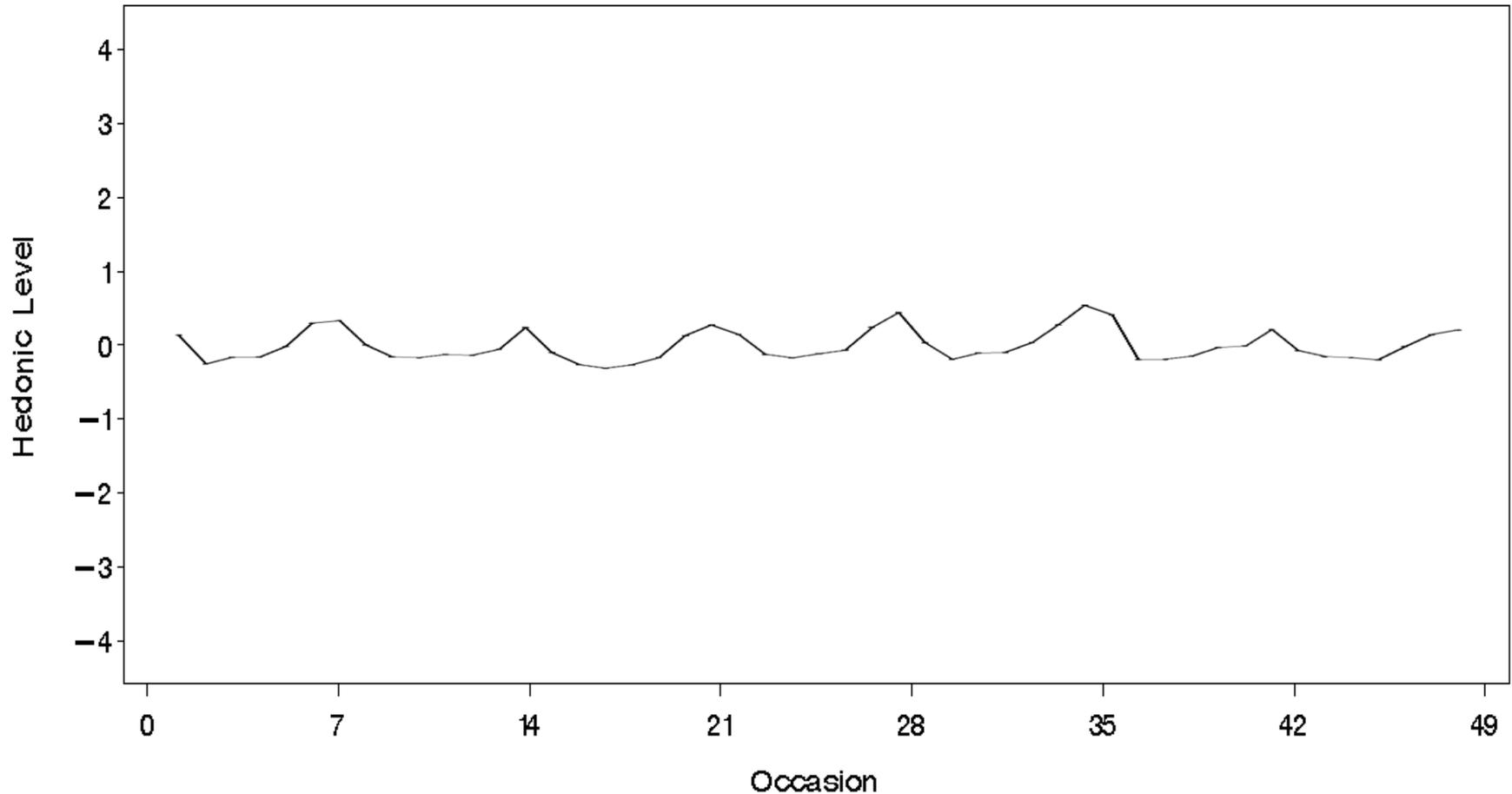
- 180 students enrolled in a semester-long course on subjective well-being at the Univ. of Illinois: Mean age = 20.2 (SD=1.8)

- ***Measures:***

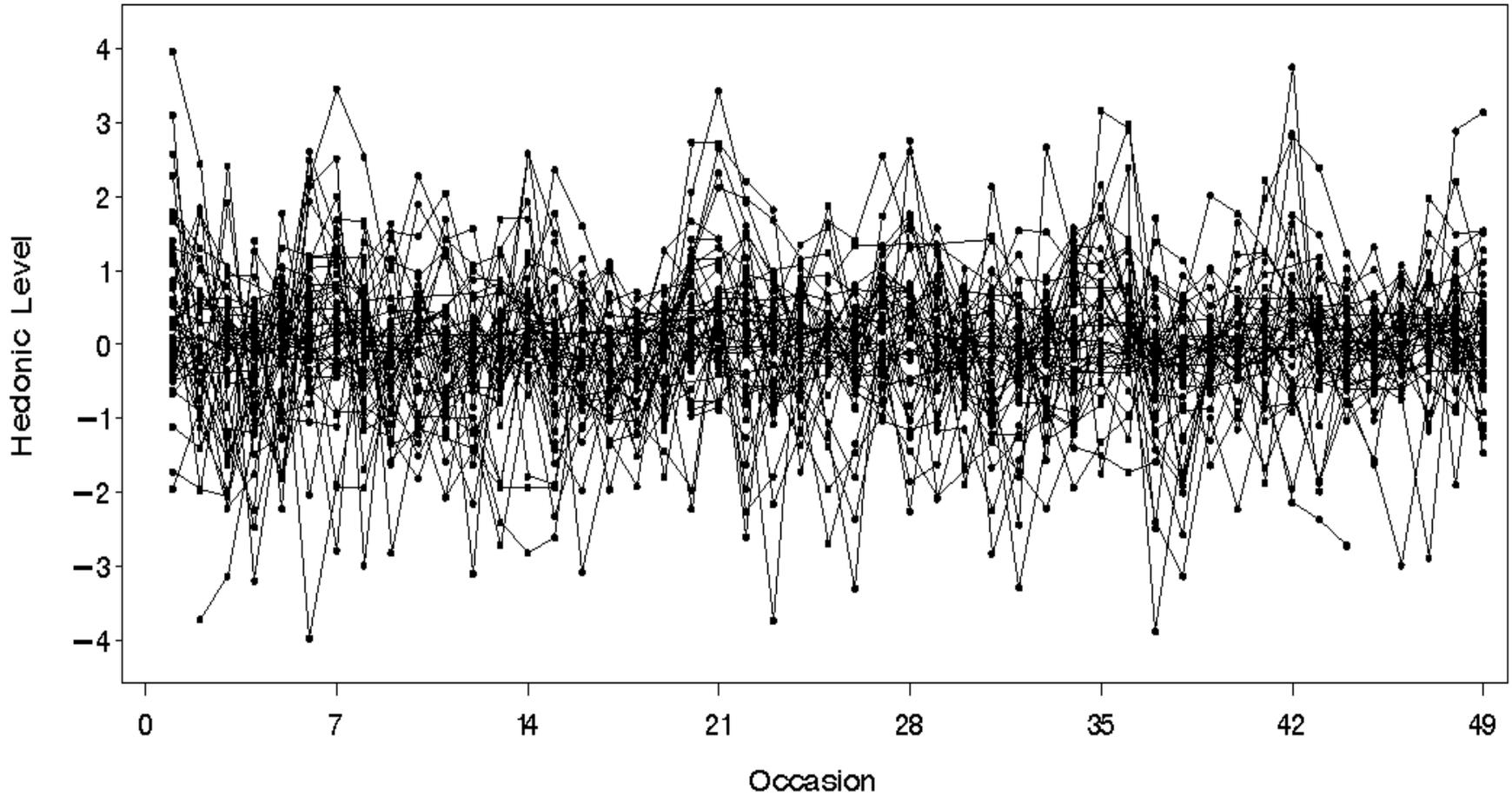
- Daily Diary of Emotion Ratings completed on 50 successive days
  - How often was each emotion felt today?
- Hedonic Level
  - 8 Pleasant and 8 Unpleasant Affect Items

# Daily Mood – Averaged Across All Individuals

(No assessment of, or possible conclusions about, changes in any individual's mood)



# Individual Daily Mood



# **THE SAMPLE CASE OF “*MEASURES AND METHODS ACROSS THE DEVELOPMENTAL CONTINUUM*” PROJECT**

Data from a Study Conducted by:



Institute for Applied Research  
in Youth Development



# DATA SET

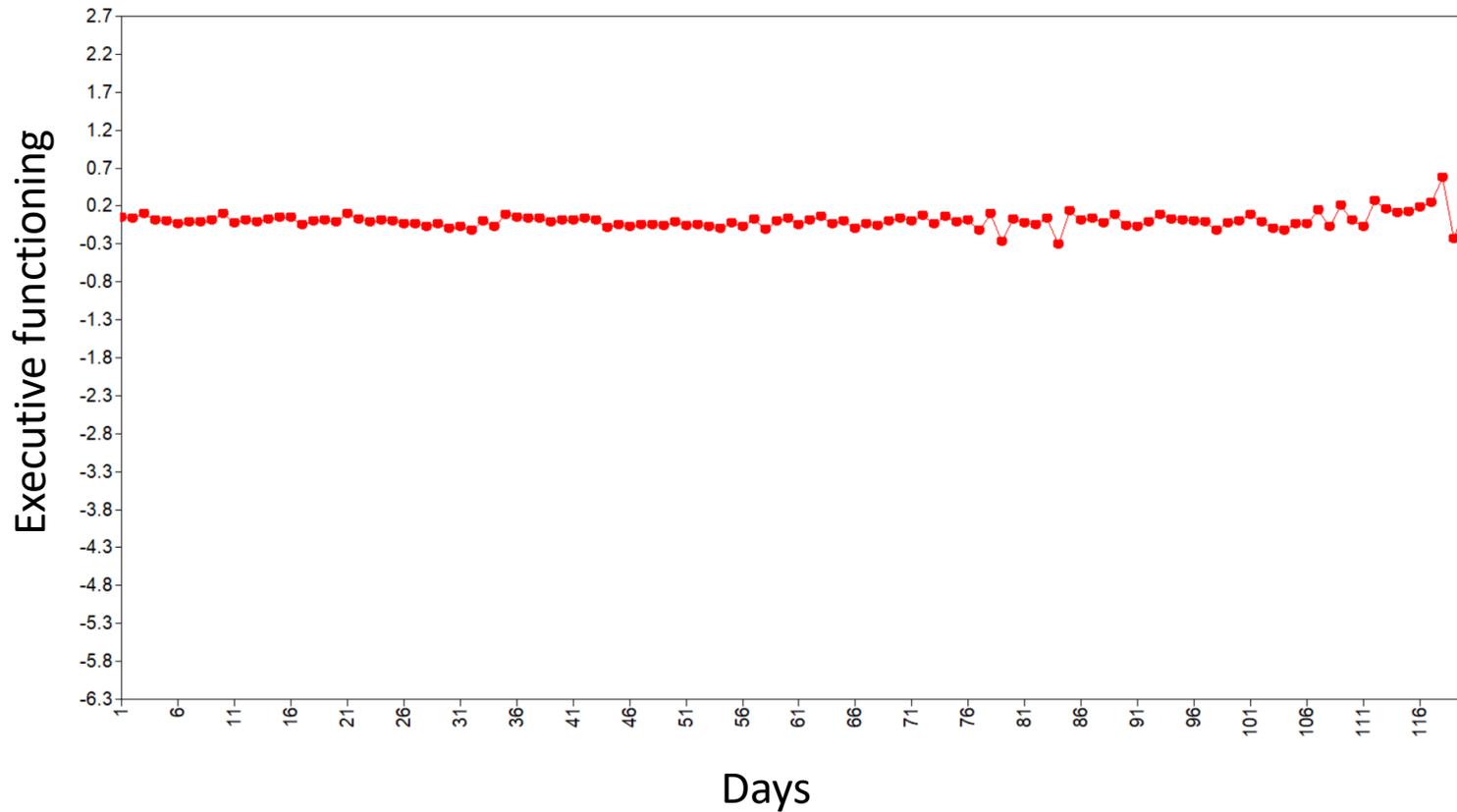
- ***Participants:***

- 64 students enrolled for repeated measures of Executive Functioning ( $M$  age = 14.60,  $SD=2.53$ )
- 35 students enrolled for repeated measures of Empathic Concern ( $M$  age = 15.91,  $SD=1.69$ )

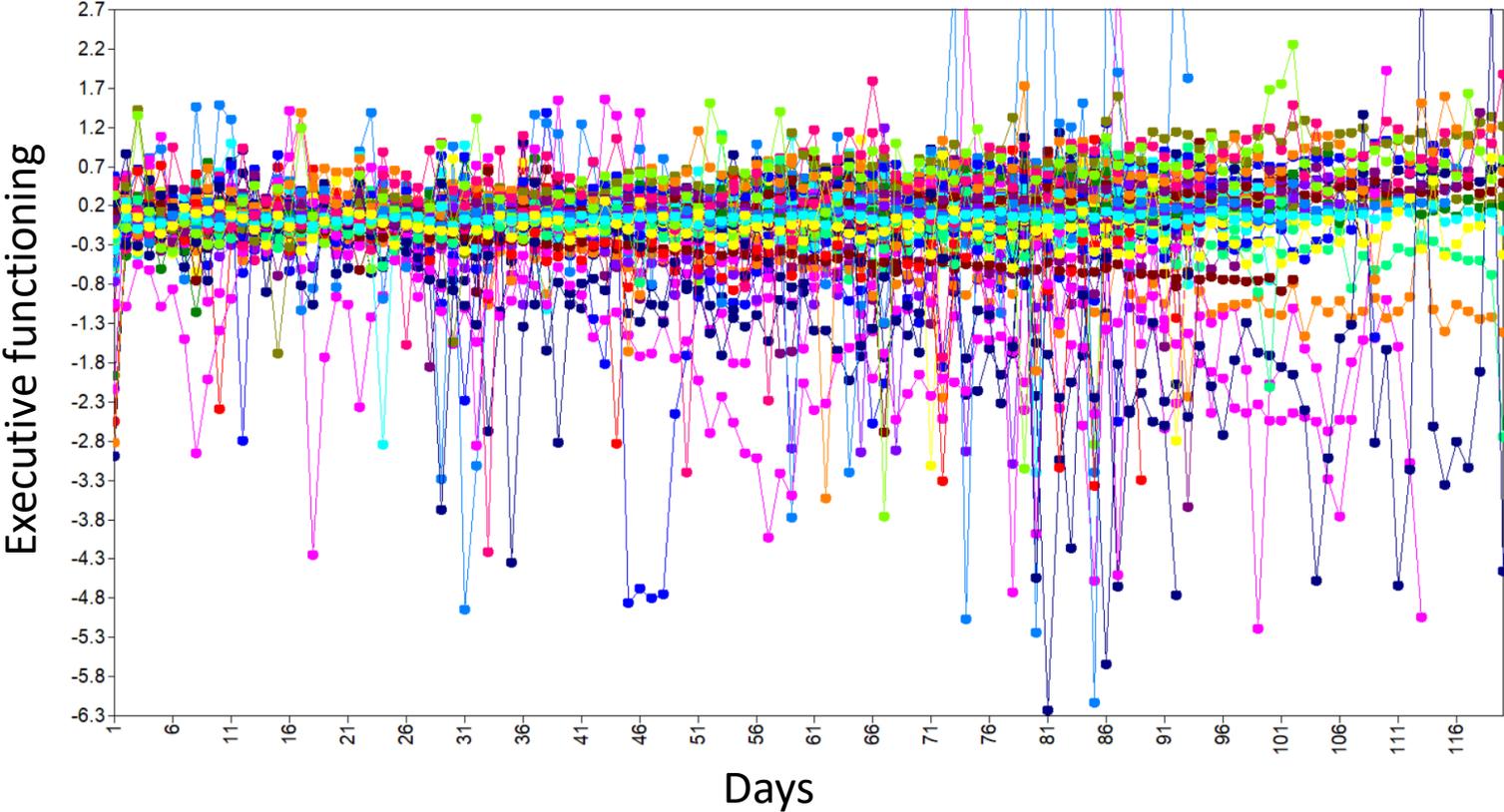
- ***Measures:***

- Behavioral tasks of Executive Functioning on approximately 30 occasions across one academic semester
- Self-reports of Empathic Concern for classmates on approximately 36 occasions across one academic semester

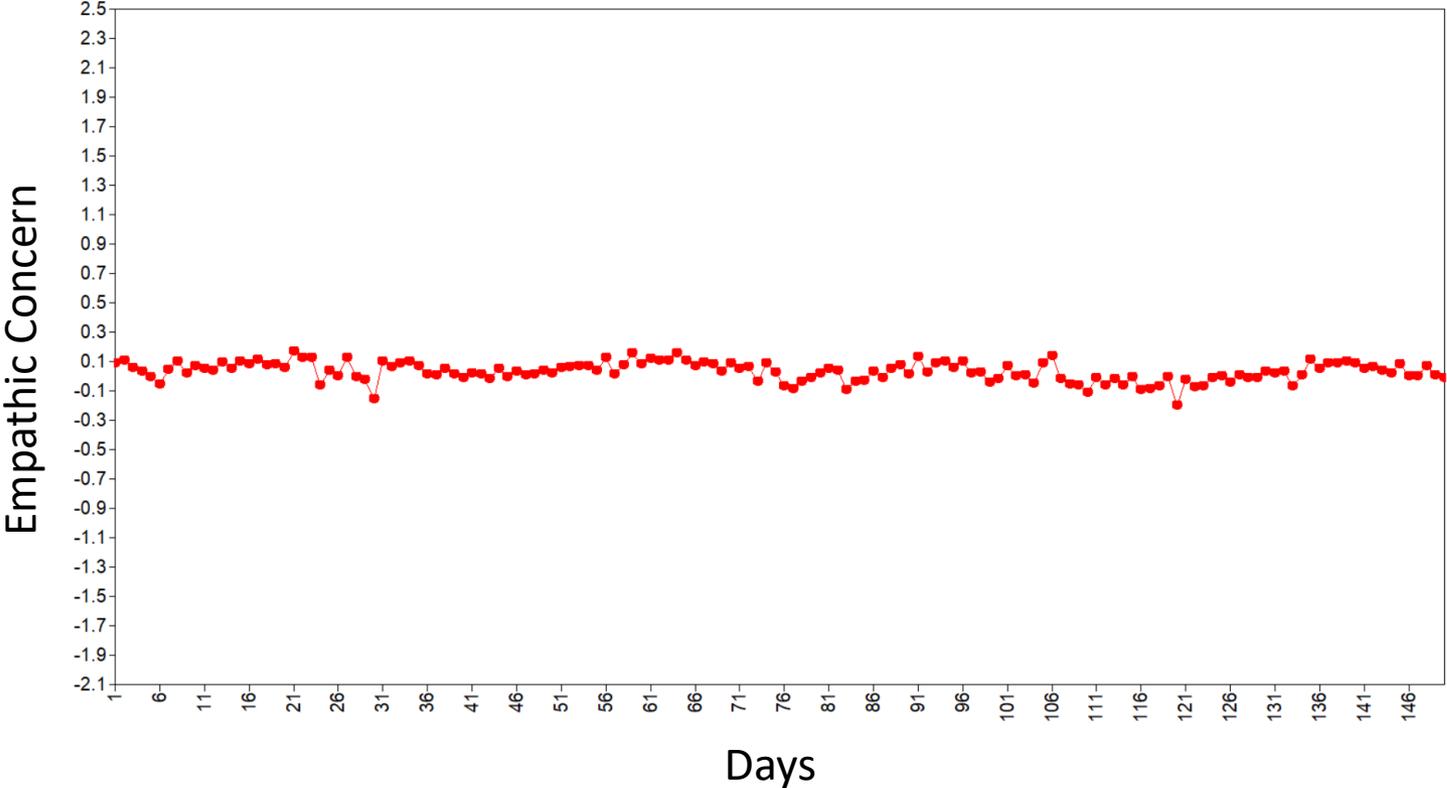
# The Average Time-Series Plot of Executive Functioning



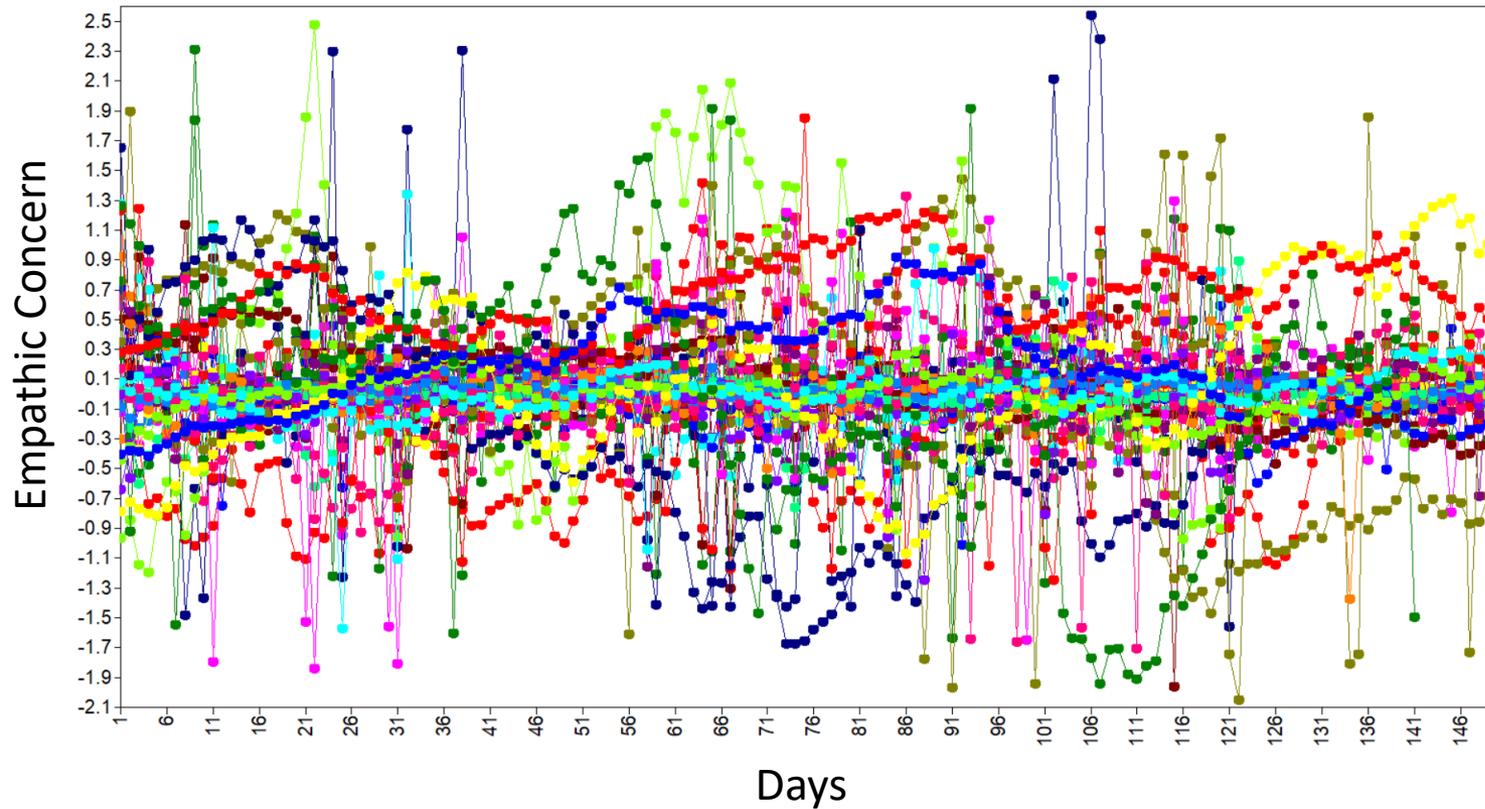
# Time-Series Plot for 64 Participants



# The Average Time-Series Plot of Empathic Concern



# Time-Series Plot for 35 Participants



# Implications for the Future of Models and Measures in the Promotion of Positive Youth Development

- Researchers, practitioners, individuals, families, and communities need to collaborate in the design of program models and measures in order to maximize the opportunity to enhance thriving for each individual across time and place.
- No one model and no one set of measures will fit every person and every program in every community:
- **There is no average individual, no average program, and no average community.**
- Researcher ⇔ Practitioner ⇔ Stakeholders Collaboration is needed to identify, measure, and evaluate the meaning and implications of the specific individual ⇔ context relations pertinent to each person.

# Possible Next Steps for Youth Development Program Practitioners

- In contemporary developmental science, there is consensus that if the specific strengths of specific youth are aligned across time and place with the specific resources of specific settings, the thriving of every person can be enhanced.
- Youth development program practitioners need to decide how to understand the specific youth ↔ context alignments needed for each specific young person in their program.
  - There is no one way (no “silver bullet”) to accomplish this task.
- Two instances of collaboration are needed to create the specific alignments needed for each young person:
  - Collaborations with youth, families, and communities
  - Collaborations with researchers
- Researcher ↔ Practitioner ↔ Stakeholders Collaboration is needed to identify, measure, and evaluate the meaning and implications of the specific youth ↔ context relations pertinent to each young person.
- The dynamics of youth ↔ context relations and the specificity of developmental change can be harnessed by practitioners, researchers, youth, and their communities, if collaboration is approached with humility and a commitment to enhancing the lives of **all** youth, that is, to equity and social justice.

**THANK YOU!**