

# Ta tillbaka individen i KBT-forskning - nya metoder för att förena forskning med klinik

Hugo Hesser

Professor i psykologi, leg. psykolog

Örebro universitet, CHAMP

Linköpings universitet, IBL



# A CASE HISTORY IN SCIENTIFIC METHOD<sup>1</sup>

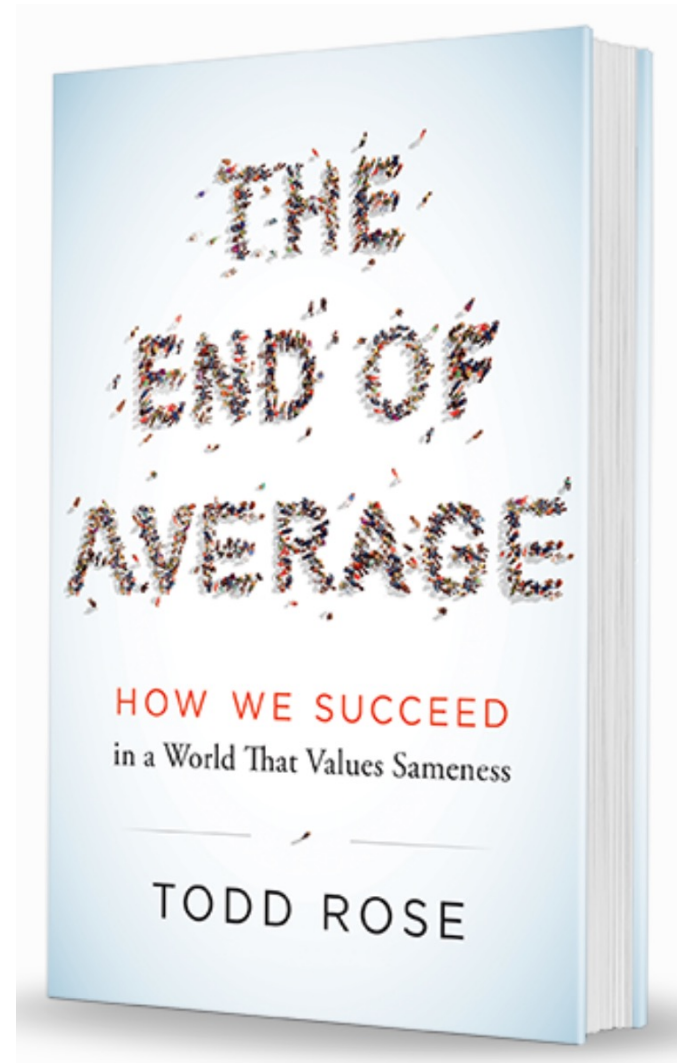
B. F. SKINNER

*Harvard University*

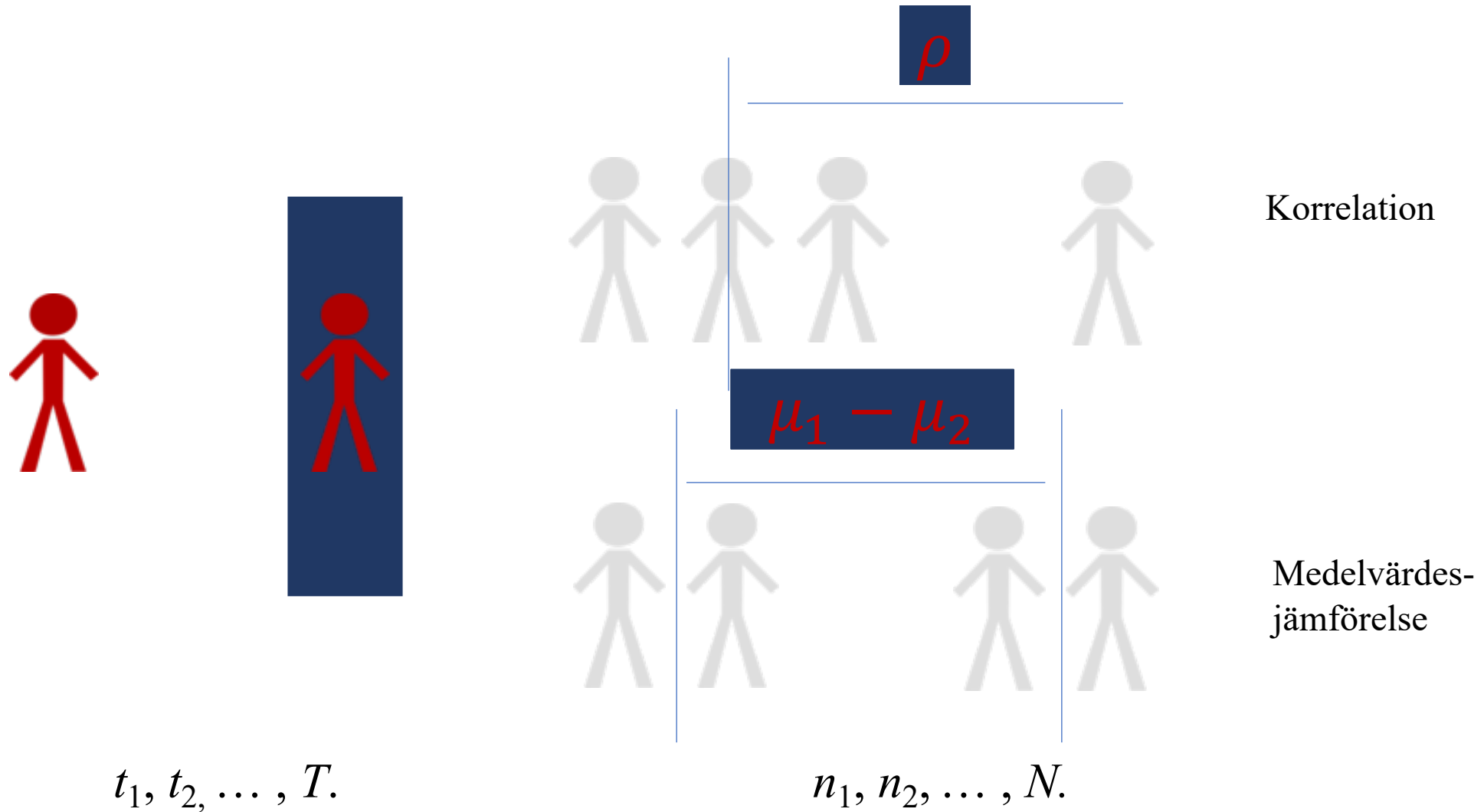
*No one goes to the circus to see the average dog jump through a hoop significantly oftener than untrained dogs raised under the same circumstances, or to see an elephant demonstrate a principle of behavior.*

*The same may be said of smooth curves. In our study of anxiety, Estes and I published several curves, the reasonable smoothness of which was obtained by averaging the performances of 12 rats for each curve. The individual curves published at that time show that the mean curves do not faithfully represent the behavior of any one rat.*

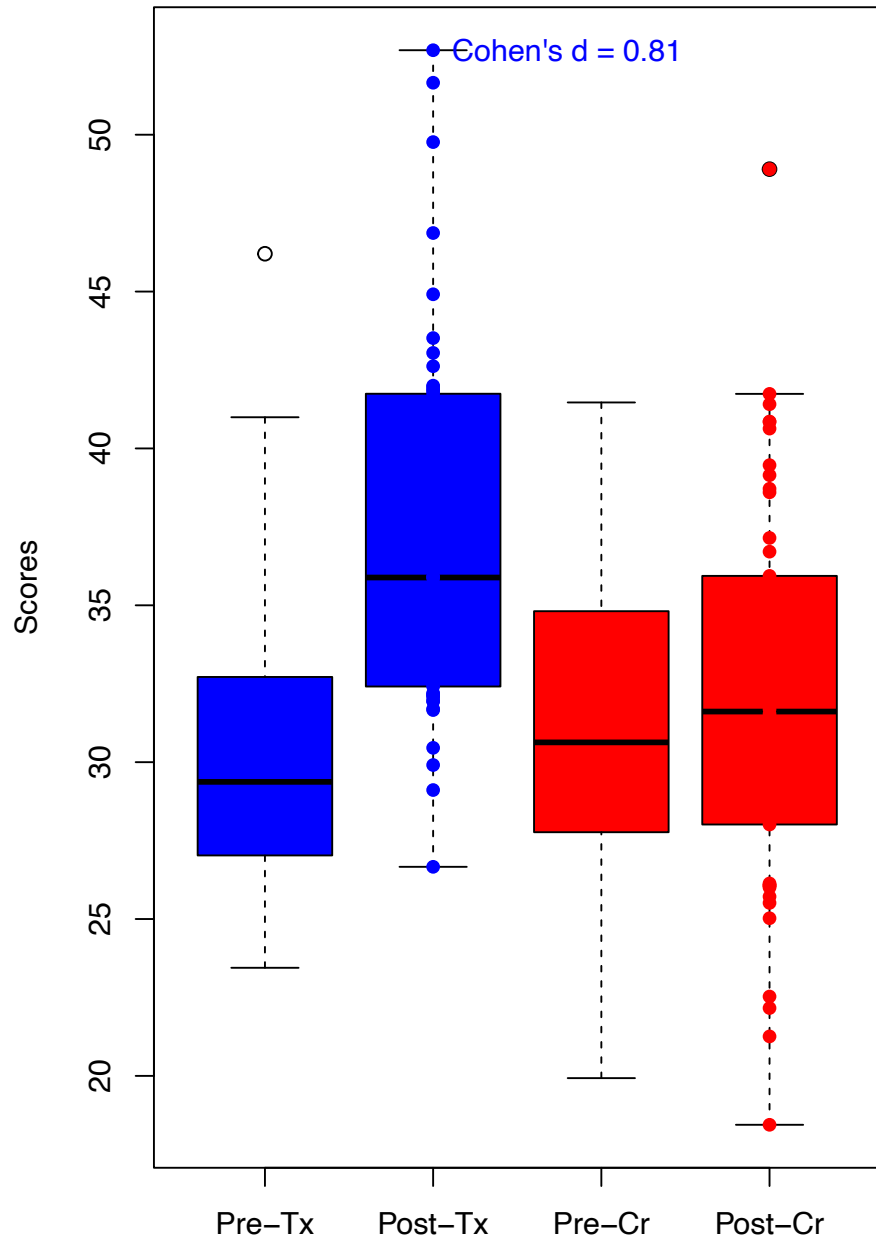
”No one is average!”



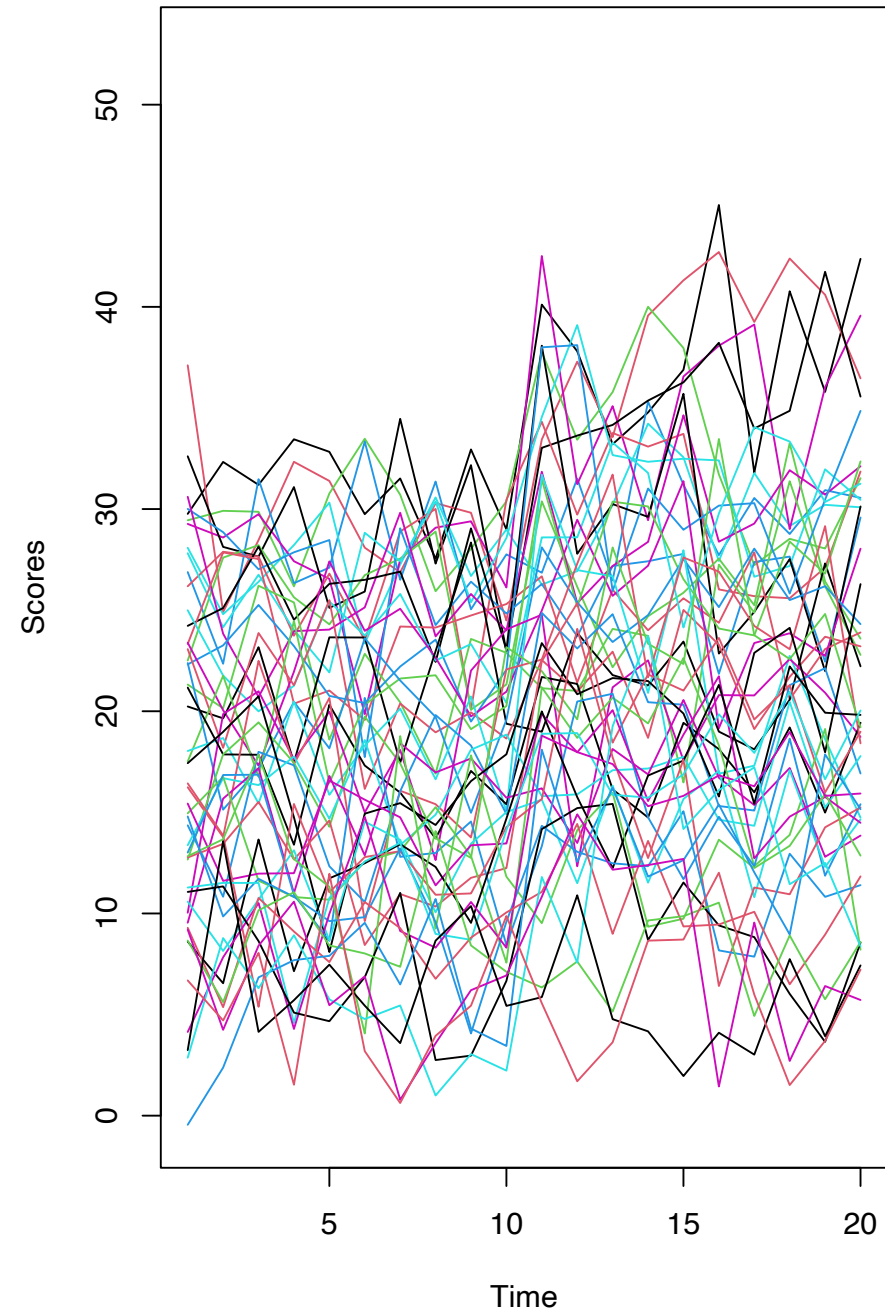
# Idiografisk vs nomotetisk ansats



### Nomothetic Approach



### Idiographic Approach



---

FOCUS ARTICLE

---

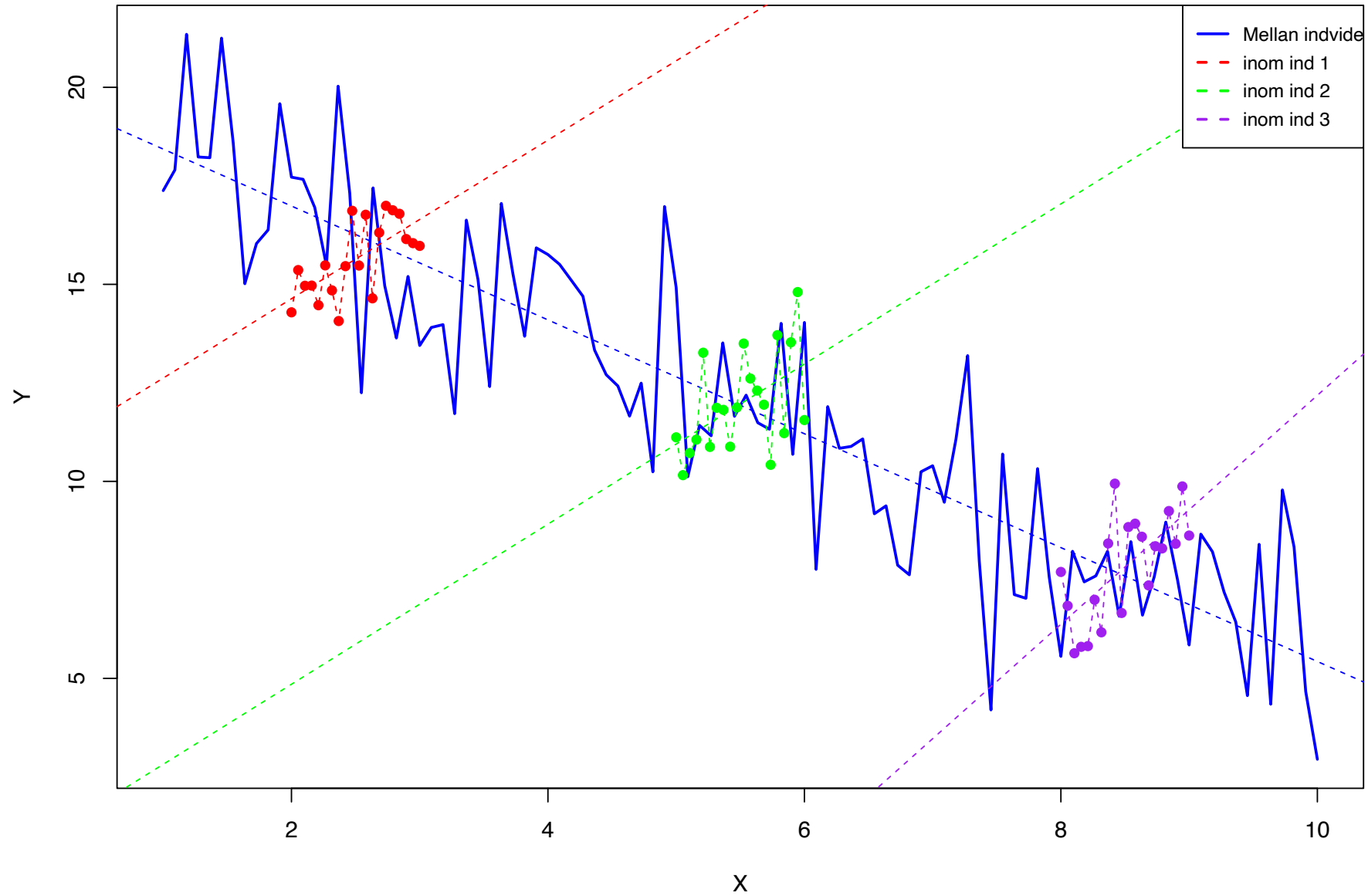
A Manifesto on Psychology  
as Idiographic Science: Bringing the  
Person Back Into Scientific Psychology,  
This Time Forever

Peter C. M. Molenaar  
Department of Psychology  
University of Amsterdam

*”...psychology as an idiographic science restores the balance by focusing on the neglected time-dependent variation within a single individual (IAV). It brings back into scientific psychology the dedicated study of the individual, prior to pooling across other individuals. Each person is initially conceived of as a possibly unique system of interacting dynamic processes, the unfolding of which gives rise to an individual life trajectory in a high-dimensional psychological space. Bringing thus back the person into scientific psychology, it can be proven that her return is definitive this time.”*

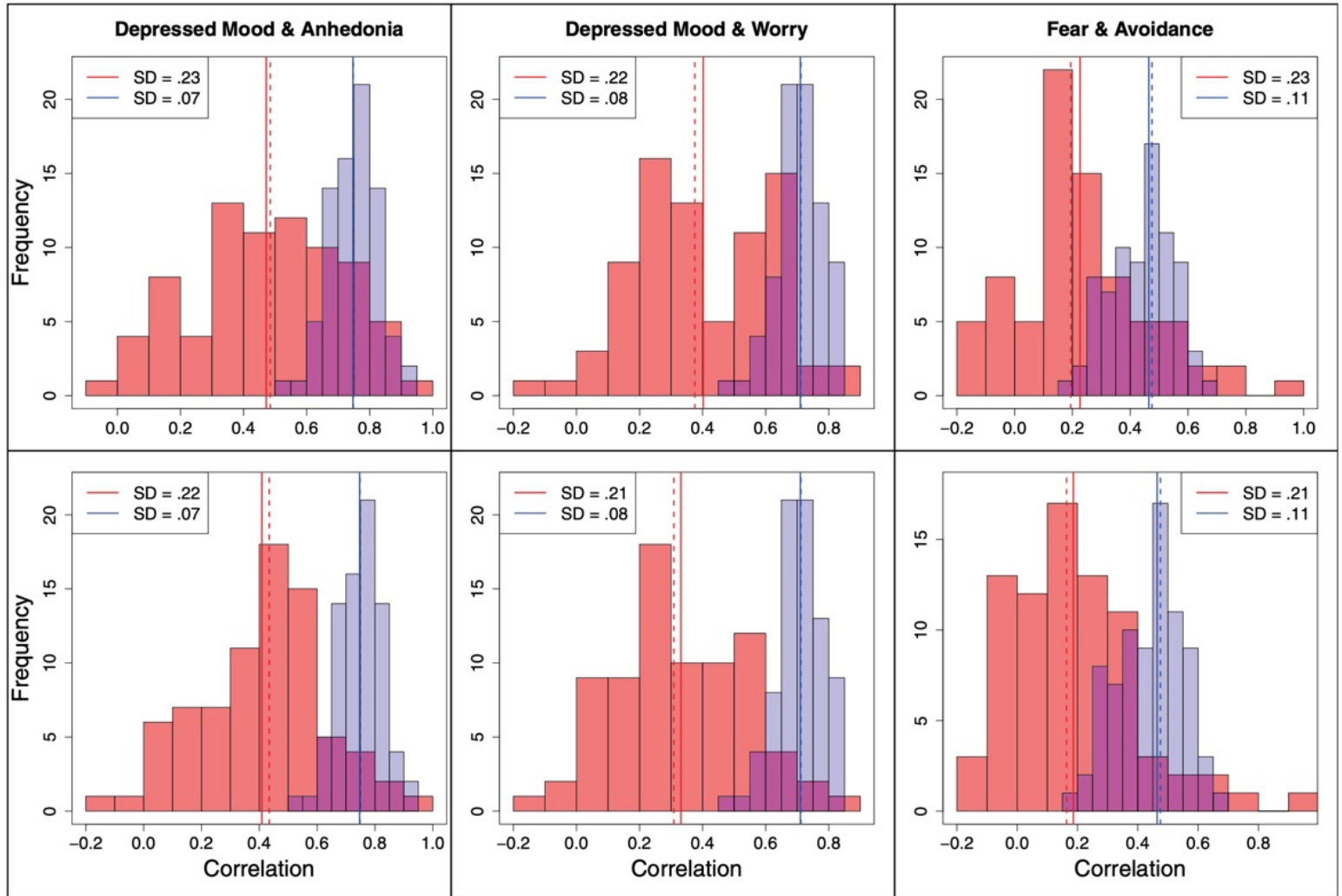
# Det som händer mellan individer är inte samma sak som händer inom individer

Samband MELLAN vs INOM individer



# Lack of group-to-individual generalizability is a threat to human subjects research

Aaron J. Fisher<sup>a,1</sup>, John D. Medaglia<sup>b,c</sup>, and Bertus F. Jeronimus<sup>d</sup>



**Fig. 1.** Histograms for intraindividual (red) and interindividual (blue) correlations for four bivariate relationships in sample 1. *Top* depicts intraindividual correlations calculated from raw data. *Bottom* depicts intraindividual correlations calculated from data with temporal dependence removed.



# Replikationskrisen inom psykologi

*“Don’t trust everything you read in the psychology literature. In fact, two-thirds of it should probably be distrusted.”*

(Baker, [2015](#))

## Small is beautiful: In defense of the small-*N* design

Philip L. Smith<sup>1</sup> · Daniel R. Little<sup>1</sup>

*This editorial stance reaffirms the view that the ultimate goal of data analysis is to estimate population parameters from measures aggregated across the individuals in a sample. Our goal in this article is to argue for a contrary view. We argue that some of the most robust, valuable, and enduring findings in psychology were obtained, not using statistical inference on large samples, but using small-*N* designs in which a large number of observations are made on a relatively small number of experimental participants.*

# Är det tid för en (ny) revolution inom psykologin?

## **From means and variances to persons and patterns**

James W. Grice\*

*”There is a genuine and potentially hazardous disconnect, then, between conclusions drawn from between-person, aggregate statistics and statements or theories meant to offer insight into the psychology of individual persons.”*

# Tanken börjar få genomslag inom flera områden...

Behaviour Research and Therapy 117 (2019) 40–53



Contents lists available at [ScienceDirect](https://www.sciencedirect.com)

Behaviour Research and Therapy

journal homepage: [www.elsevier.com/locate/brat](http://www.elsevier.com/locate/brat)



## The role of the individual in the coming era of process-based therapy

Steven C. Hayes<sup>a,\*</sup>, Stefan G. Hofmann<sup>b</sup>, Cory E. Stanton<sup>a</sup>, Joseph K. Carpenter<sup>b</sup>,  
Brandon T. Sanford<sup>a</sup>, Joshua E. Curtiss<sup>b</sup>, Joseph Ciarrochi<sup>c</sup>

Affective Science

<https://doi.org/10.1007/s42761-023-00182-5>

SHORT REVIEW

## Why the Single-N Design Should Be the Default in Affective Neuroscience

Håkan Fischer<sup>1,2,3</sup>  · Mats E. Nilsson<sup>1</sup> · Natalie C. Ebner<sup>3,4,5,6</sup>

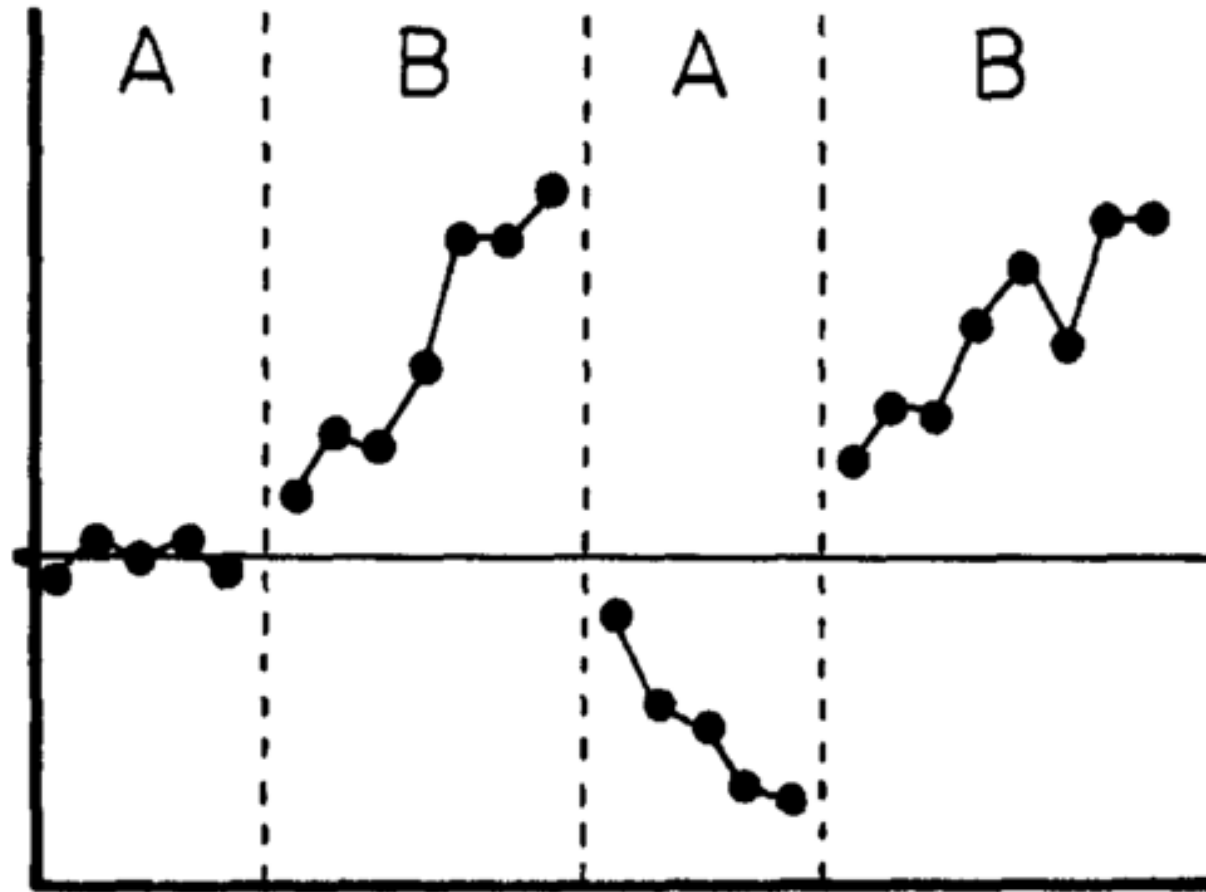
ILLUSTRATION BY GREG CLARKE



## Time for one-person trials

Precision medicine requires a different type of clinical trial that focuses on individual, not average, responses to therapy, says **Nicholas J. Schork**.

# Single case experimental design - SCED



# Att mäta regelbundet är centralt – både för kliniker och forskare

- Feedback – för både patient och behandlare
- Möjliggör att individer kan studeras över tid och i olika kontexter
- Öppnar upp för manipulation inom individ snarare än mellan
- Som kliniker är varje patient en unik möjlighet att studera mönster i förändring över tid som funktion av kontextuella variabler



# Utmaningen: gå från det specifika till det generella

*We are left with an infinite number of life stories, the characteristics of any one wholly unrelated to any other. This does not allow for the systematic building of an empirically based knowledge structure about human development because no knowledge can be generalized beyond the specifics of any single individual. We see this perspective as undermining one of the key goals of an empirical science, that being external validity.*

Curran et al. 2004, commentary on Molenaar 2004

# Går perspektiven verkligen att förena?

*Correlational psychology studies only variance among organisms; experimental psychology studies only variance among treatments. A united discipline will study both of these, but it will also be concerned with the otherwise neglected interactions between organismic and treatment variables (...). Our job is to invent constructs and to form a network of laws which permits prediction. From observations we must infer a psychological description of the situation and of the present state of the organism. Our laws should permit us to predict, from this description, the behavior of organism-in-situation.*

(Cronbach, 1957, pp. 681–682)



# En ny era i psykologin?

En (ny) personcentrerad forskning inom psykologi är

- a) idiografisk i den meningen att den fokuserar på vad som händer inom individ över tid i relation till specifika kontextuella förändringar (tex. interventioner)
- b) nomotetisk i den meningen att den strävar att upptäcka funktionella mönster över flera situationer och människor
- c) är holistisk i den meningen att den studerar dynamiska samband mellan variabler över olika nivåer (t.ex. inom och mellan individer)

# The best of both worlds....

- Börja med individen – inte gruppen
- Identifiera mönster i förändring och relationer över tid på individnivå
- Aggregera där det är *meningsfullt och där individer i specifika sammanhang uppvisar liknande mönster* – ”bygga modeller nerifrån och upp”
- Nya statistiska metoder öppnar upp för nya möjligheter att get the best of both worlds....

# Förena grupp med individ – metoder som tar hänsyn till individuella skillnader i förändring

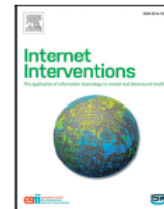
Internet Interventions 2 (2015) 110–120



Contents lists available at [ScienceDirect](#)

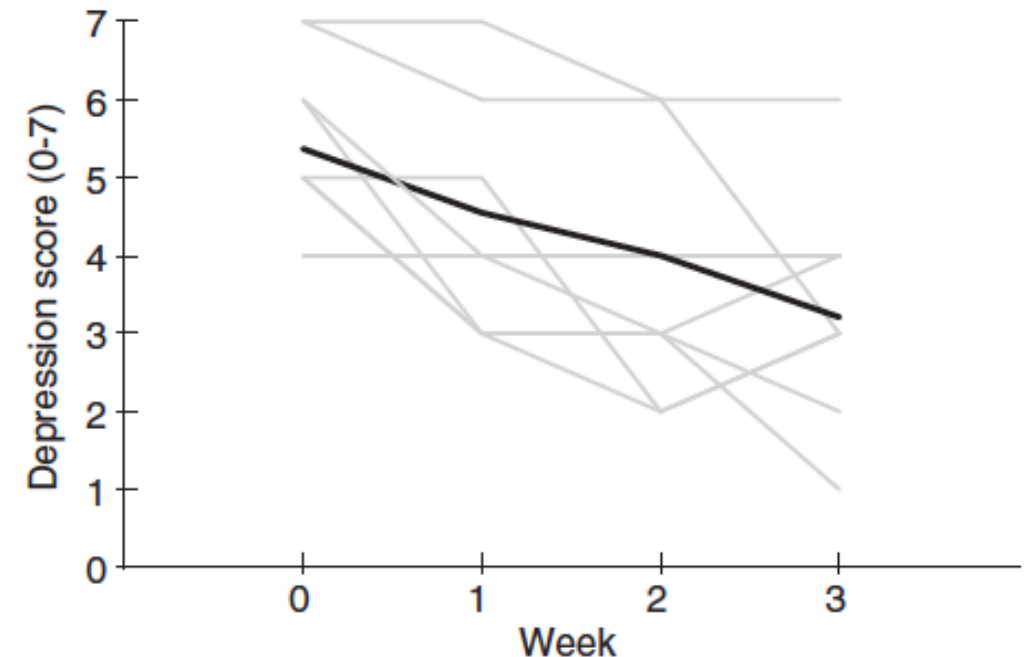
Internet Interventions

journal homepage: [www.invent-journal.com/](http://www.invent-journal.com/)



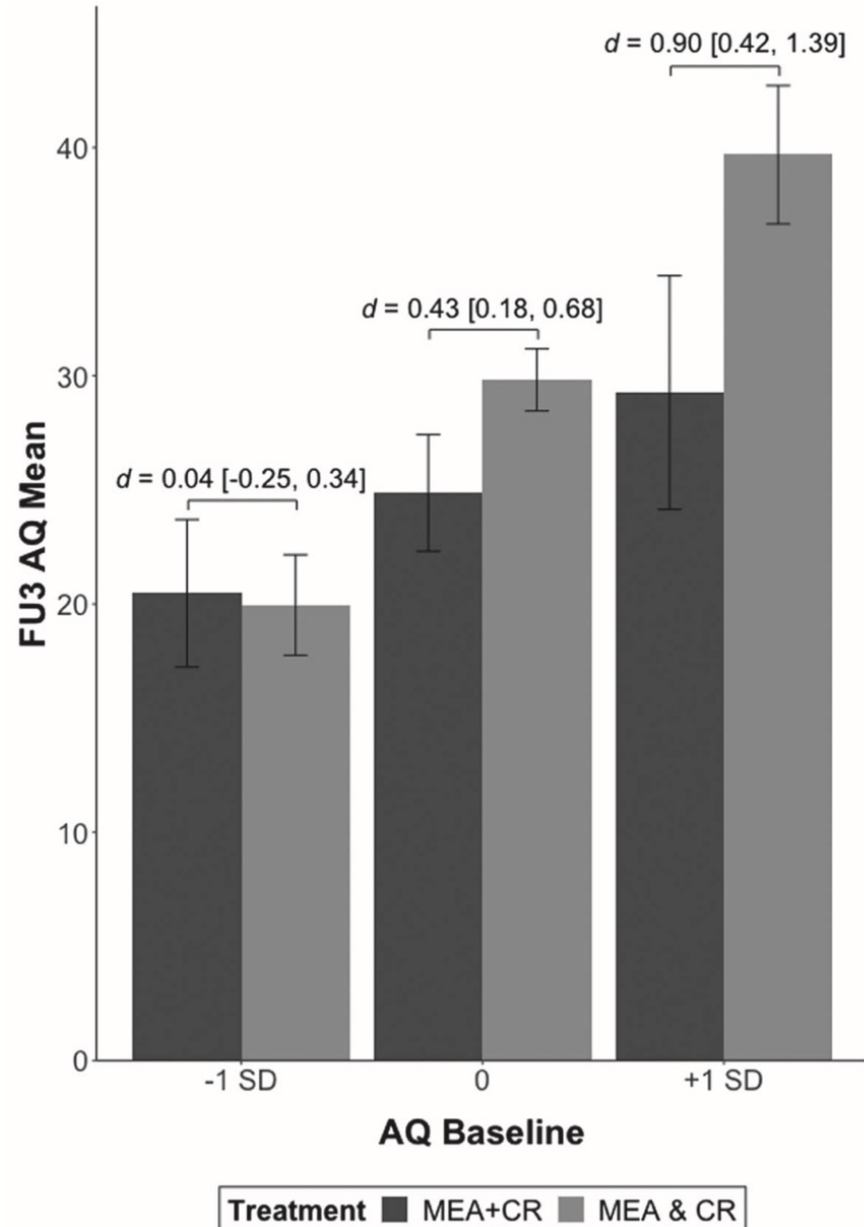
Modeling individual differences in randomized experiments using growth models: Recommendations for design, statistical analysis and reporting of results of internet interventions

Hugo Hesser\*

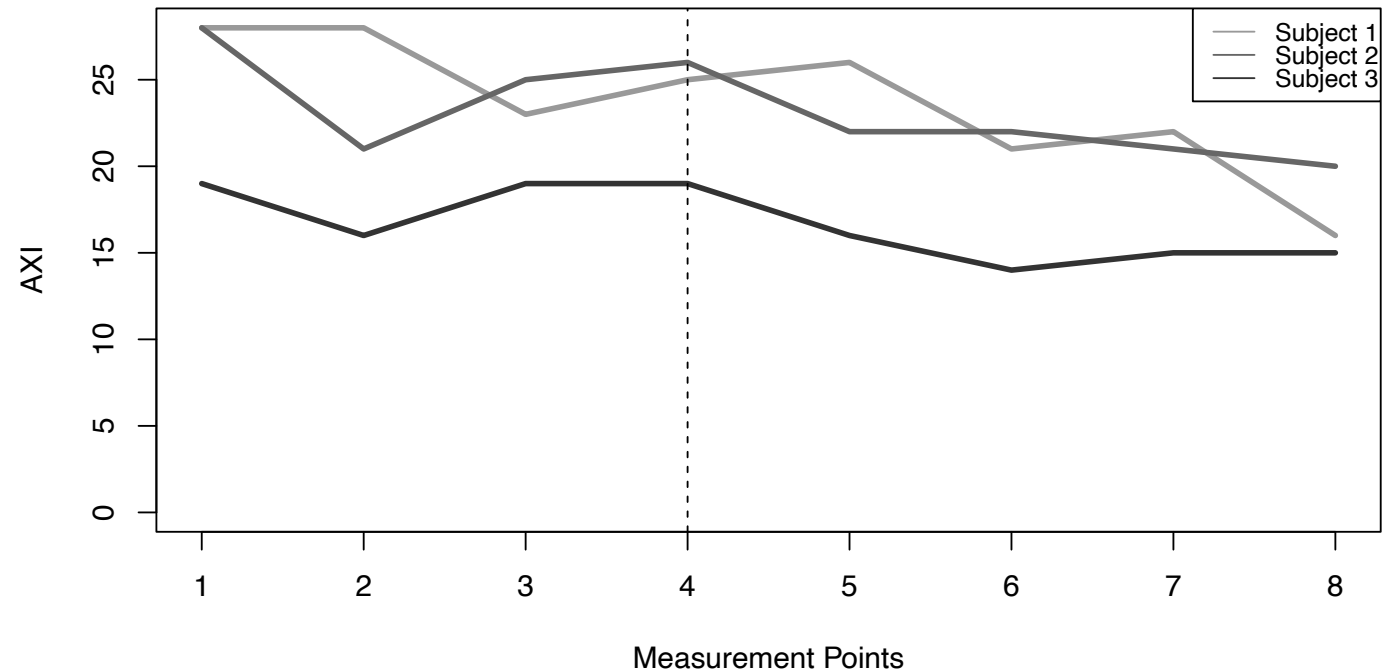


## Targeting Maladaptive Anger With Brief Therapist-Supported Internet-Delivered Emotion Regulation Treatments: A Randomized Controlled Trial

Johan Bjureberg<sup>1, 2, 3</sup>, Olivia Ojala<sup>2, 3</sup>, Anton Berg<sup>4</sup>, Elin Edvardsson<sup>2</sup>, Örn Kolbeinsson<sup>4</sup>, Olof Molander<sup>2, 3</sup>, Evelina Morin<sup>4</sup>, Line Nordgren<sup>4, 5</sup>, Kristin Palme<sup>4</sup>, Josefin Särholm<sup>6</sup>, Leif Wedin<sup>2</sup>, Christian Rück<sup>2, 3</sup>, James J. Gross<sup>1</sup>, and Hugo Hesser<sup>4, 7</sup>



### Individual Trajectories



# Personcentrerade metoder

RESEARCH ARTICLE

WILEY

## Anger profiles among individuals seeking treatment for maladaptive anger: Associations with emotion regulation

Johannes Larsson<sup>1</sup>  | Johan Bjureberg<sup>2</sup>  | Hugo Hesser<sup>1,3</sup> 



Psychological Assessment

© 2021 American Psychological Association  
ISSN: 1040-3590

2022, Vol. 34, No. 4, 367–378  
<https://doi.org/10.1037/pas0001103>

## Identifying Subgroups of Patients With Eating Disorders Based on Emotion Dysregulation Profiles: A Factor Mixture Modeling Approach to Classification

Line Nordgren<sup>1, 2</sup>, Ata Ghaderi<sup>3</sup>, Brjánn Ljótsson<sup>3</sup>, and Hugo Hesser<sup>1, 4</sup>

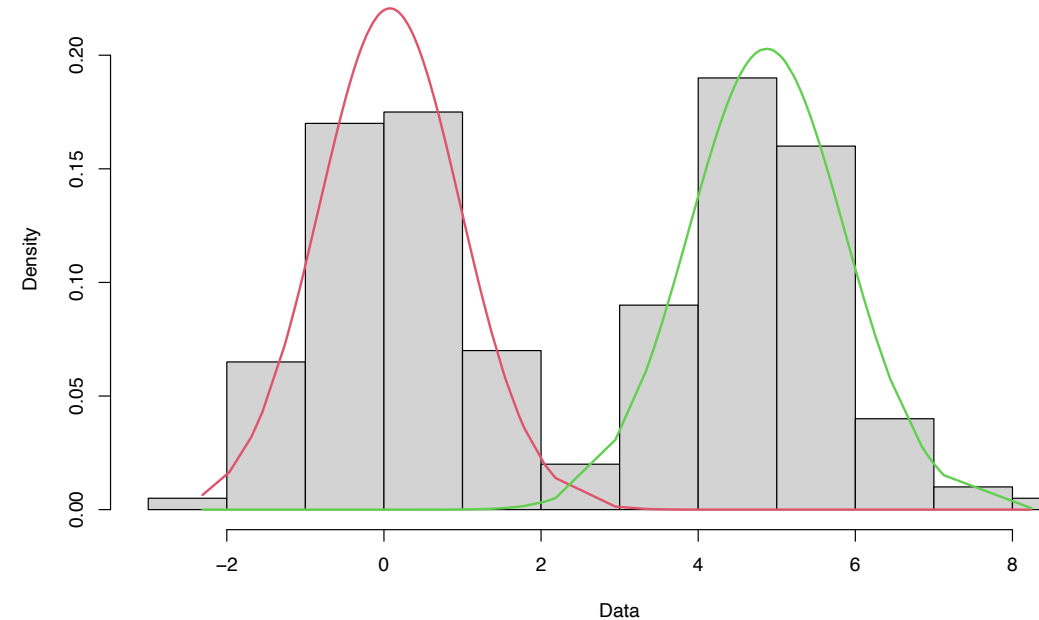
<sup>1</sup> Department of Behavioural Sciences and Learning, Linköping University

<sup>2</sup> Department of Child and Adolescent Psychiatry, Region Östergötland, Sweden

<sup>3</sup> Division of Psychology, Department of Clinical Neuroscience, Karolinska Institutet

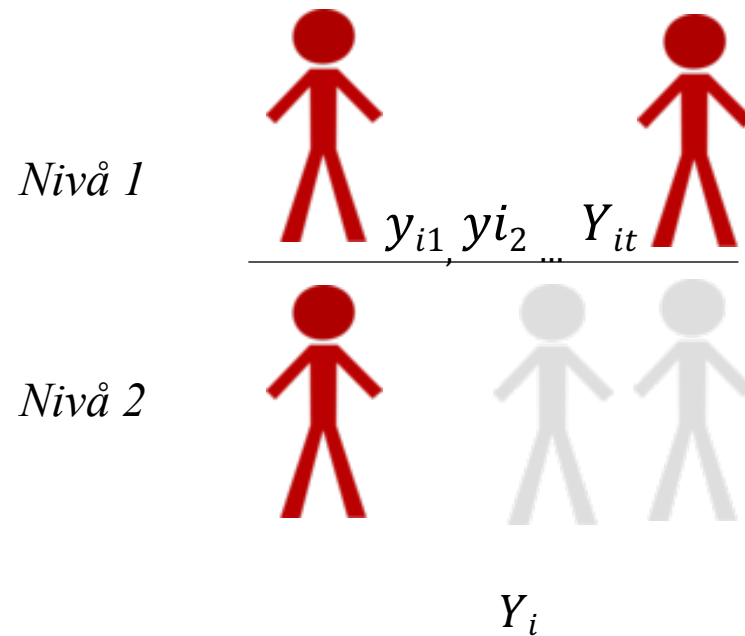
<sup>4</sup> School of Law, Psychology and Social Work, Center for Health and Medical Psychology, Örebro University

Density Curves



# Modellera dynamiska samband över tid – inom och mellan individer

**Flernivå dynamisk tidsserie- och faktoranalys (går under många namn...)**



# Instrument som är individanpassade

Clinical Psychology Review 29 (2009) 179–191



Contents lists available at [ScienceDirect](#)

Clinical Psychology Review



Idiographic assessment: Conceptual and psychometric foundations of individualized behavioral assessment

Stephen N. Haynes <sup>a,\*</sup>, Gregory H. Mumma <sup>b</sup>, Catherine Pinson <sup>c</sup>

# Individanpassad behandling

Article

## Enhancing the Personalization of Psychotherapy With Dynamic Assessment and Modeling

Aaron J. Fisher<sup>1</sup> and James F. Boswell<sup>2</sup>

Assessment  
2016, Vol. 23(4) 496–506  
© The Author(s) 2016  
Reprints and permissions:  
sagepub.com/journalsPermissions.nav  
DOI: 10.1177/1073191116638735  
asm.sagepub.com



Psychother Psychosom 2018;87:249–251

DOI: [10.1159/000487769](https://doi.org/10.1159/000487769)

### Translating Person-Specific Network Models into Personalized Treatments: Development and Demonstration of the Dynamic Assessment Treatment Algorithm for Individual Networks (DATA-IN)

Julian A. Rubel<sup>a</sup> Aaron J. Fisher<sup>b</sup> Kristin Husen<sup>a</sup> Wolfgang Lutz<sup>a</sup>

<sup>a</sup>University of Trier, Trier, Germany; <sup>b</sup>University of California, Berkeley, CA, USA



# Kontentan

- Teorier måste återigen utgå från individen. Frågorna *för vem, under vilka omständigheter* och *hur* är avgörande!
- Vi behöver fortsättningsvis gruppera - men enbart när det är meningsfullt!
- TÄNK SCED i klinik och forskning
  - Mätmetoder behöver individanpassas och utvärderas på den nivån
  - Mäta regelbundet och ofta
    - “It is more useful to study one animal for 1000 hours than to study 1000 animals for one hour” — B. F. Skinner
  - Mät tänkbara förändringsprocesser som ligger nära din manipulation
  - Som kliniker är varje patient en unik möjlighet att studera mönster i förändring – som i vissa fall går att generalisera till andra patienter i liknande omständigheter
  - **N = 1 är inte längre förstadiet till en ”riktig studie” (som det ibland styvmoderligt behandlats) – det är kärnan i psykologin som vetenskap!**

# Låt Skinner sammanfatta målsättningen

*We are within reach of a science of the individual. This will be achieved, not by resorting to some special theory of knowledge in which intuition or understanding takes the place of observation and analysis, but through an increasing grasp of relevant conditions to produce order in the individual case.*

*Skinner, 1956*