

Using Behavioral Science to Mobilize Environmental Change and to Address Environmental Distress

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Psychology Produced Progress Nearly Half a Century Ago, But . . .

JOURNAL OF APPLIED BEHAVIOR ANALYSIS 1977, 10, 425-435 NUMBER 3 (FALL) 1977

REDUCING RESIDENTIAL ELECTRICAL ENERGY USE: PAYMENTS, INFORMATION, AND FEEDBACK¹

STEVEN C. HAYES AND JOHN D. CONE

WEST VIRGINIA UNIVERSITY

JOURNAL OF APPLIED BEHAVIOR ANALYSIS 1981, 14, 81-88 NUMBER 1 (SPRING 1981)

REDUCTION OF RESIDENTIAL CONSUMPTION OF ELECTRICITY THROUGH SIMPLE MONTHLY FEEDBACK

STEVEN C. HAYES AND JOHN D. CONE

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WEST VIRGINIA UNIVERSITY

Feedback has been widely used in efforts to control the consumption of electricity. Previous efforts, however, have used forms of feedback that seem economically impractical. The present study examined the effects of a feasible program of monthly feedback. Forty matched nonvolunteer participants were randomly divided into two groups: a no-contact control group and a monthly feedback group. In an A-B-A design, the data showed a clear decrease in electricity consumption for the feedback group during the feedback phase. The effect was maintained during a 4-mo intervention period. Withdrawal of the feedback was associated with a electricity consumption.

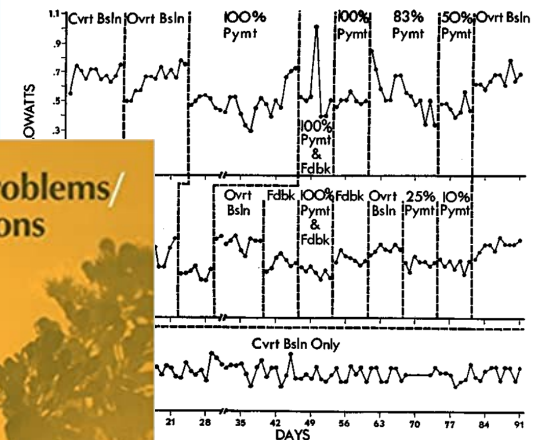
DESCRIPTORS: electrical energy, conservation, feedback
behavioral community psychology, consumer behavior

Environmental Problems/ Behavioral Solutions

John D. Cone
Steven C. Hayes

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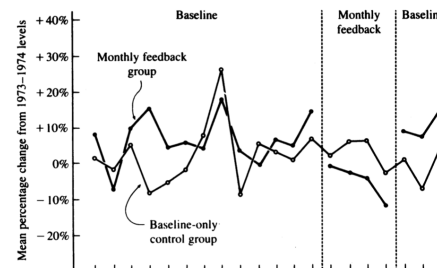
STEVEN C. HAYES and JOHN D. CONE



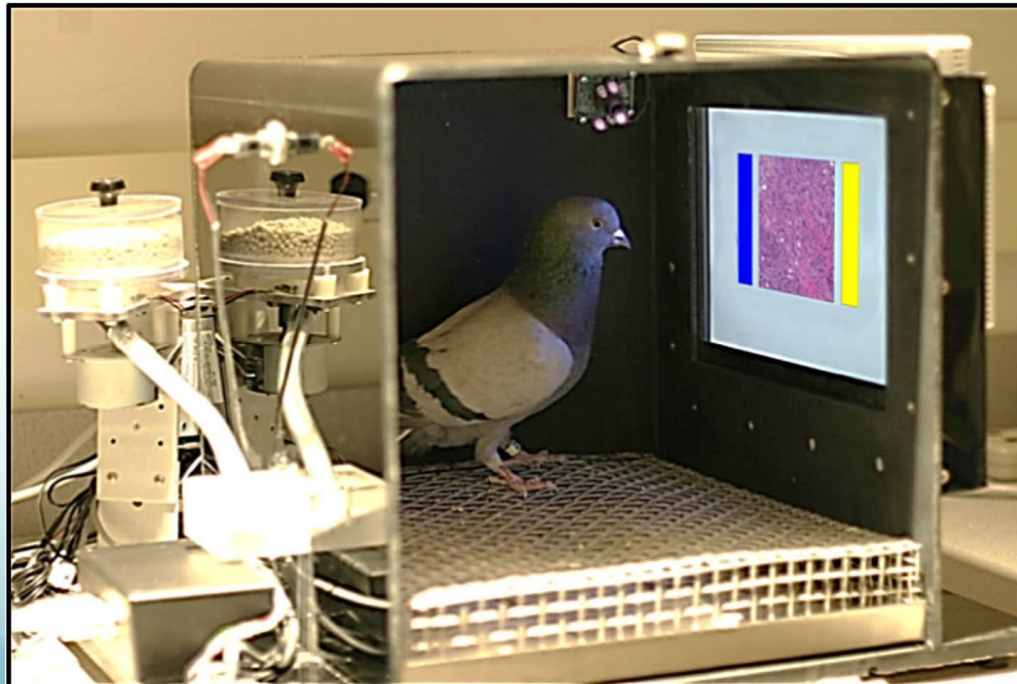
For experimental Units 3 and 4 and for the average unit in the overall complex.
Abbreviations are: Cvt = covert, Bsln = baseline, Ovt = overt, Pymt =

MONTHLY FEEDBACK

85



Our Process Knowledge Was Too Limited and Social / Governmental Support was Absent



We Have Some Good Targets Based
on the Last Decades of Research

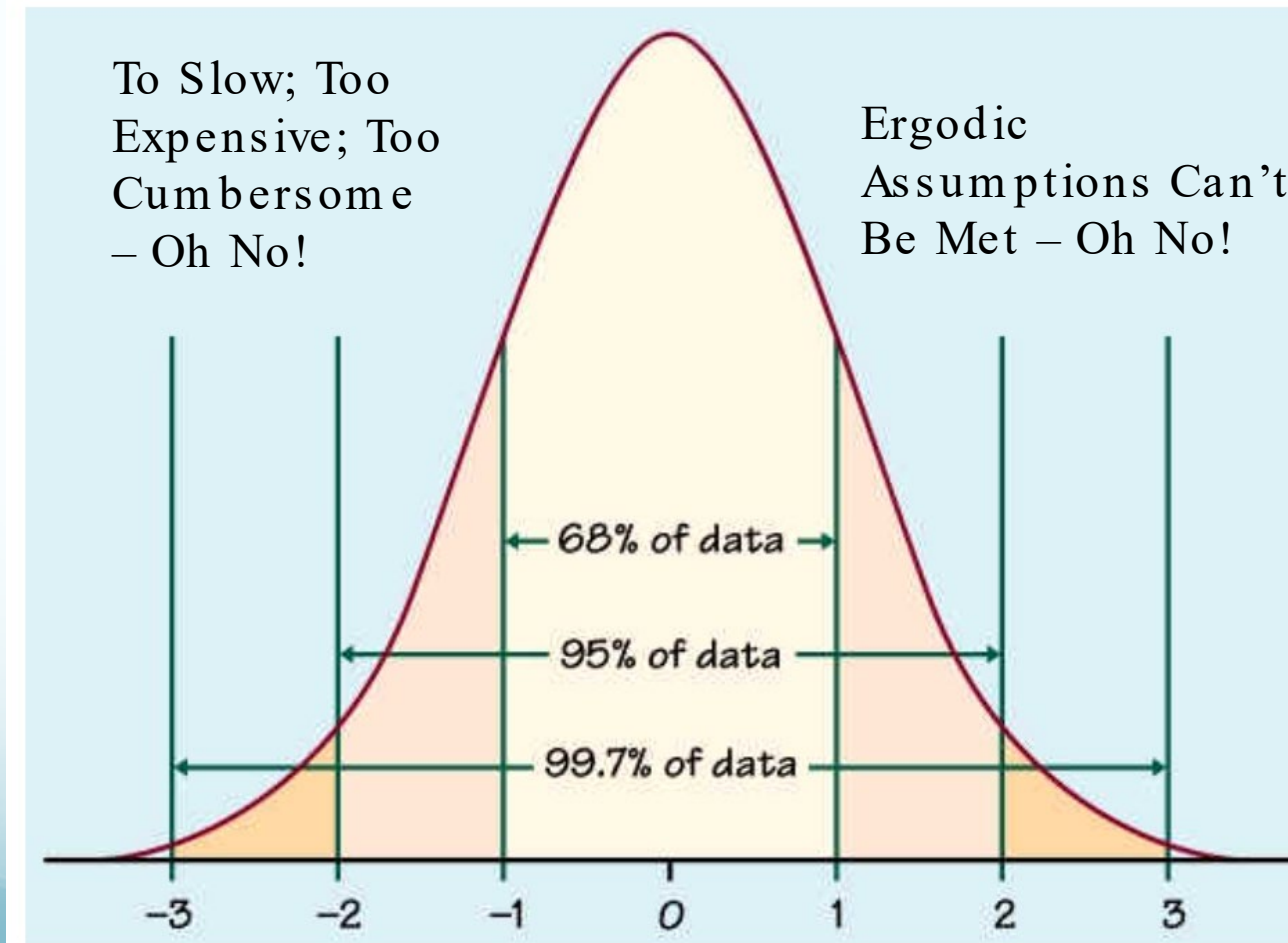
(<https://toolsofchange.com/>)

Such as Incentives, Vivid Messaging,
Commitments, or Feedback But How
Can We Build on These?

Time is Too Short Now to Succeed by Throwing Techniques at a Goal Focus



We Need Rapid Research and RCTs Alone Can't Take Us There



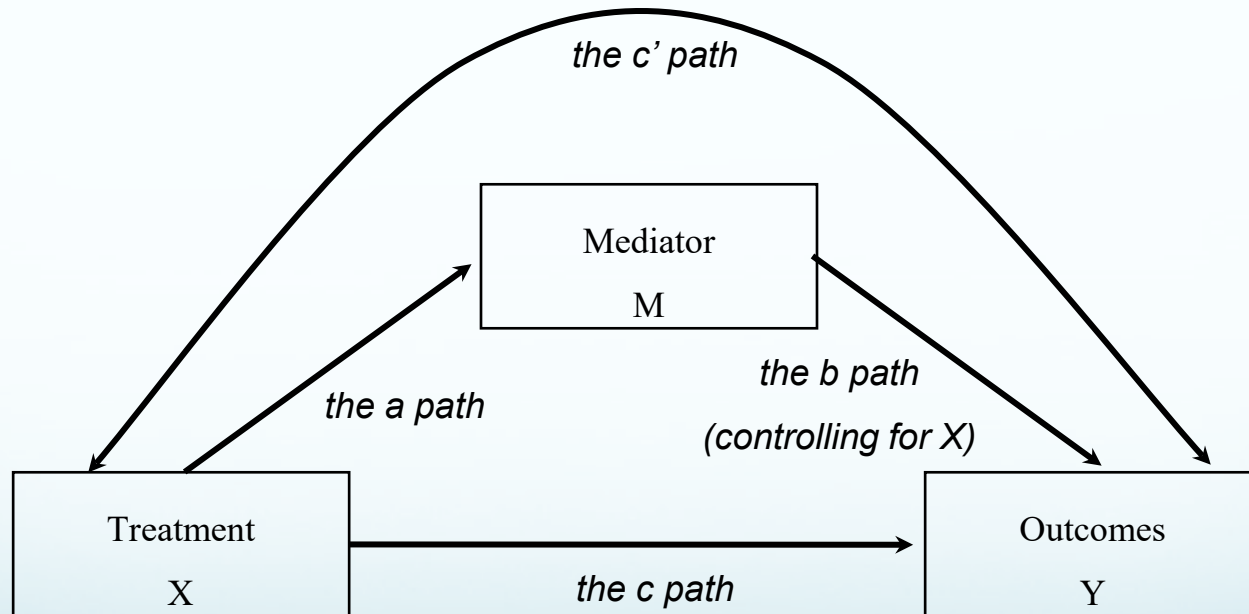
We Need to Build on Powerful Processes that Reliably Produce Behavior Change



There are a Cacophony of Competing Processes and Models



But We Can Simplify that Problem Space By Looking at Processes that Mediate Behavior Change



$$a * b = c - c'$$



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

Behaviour Research and Therapy

journal homepage: www.elsevier.com/locate/brat



Evolving an idionomic approach to processes of change: Towards a unified personalized science of human improvement

Steven C. Hayes^{a,*}, Joseph Ciarrochi^b, Stefan G. Hofmann^c, Fredrick Chin^a, Baljinder Sahdra^b

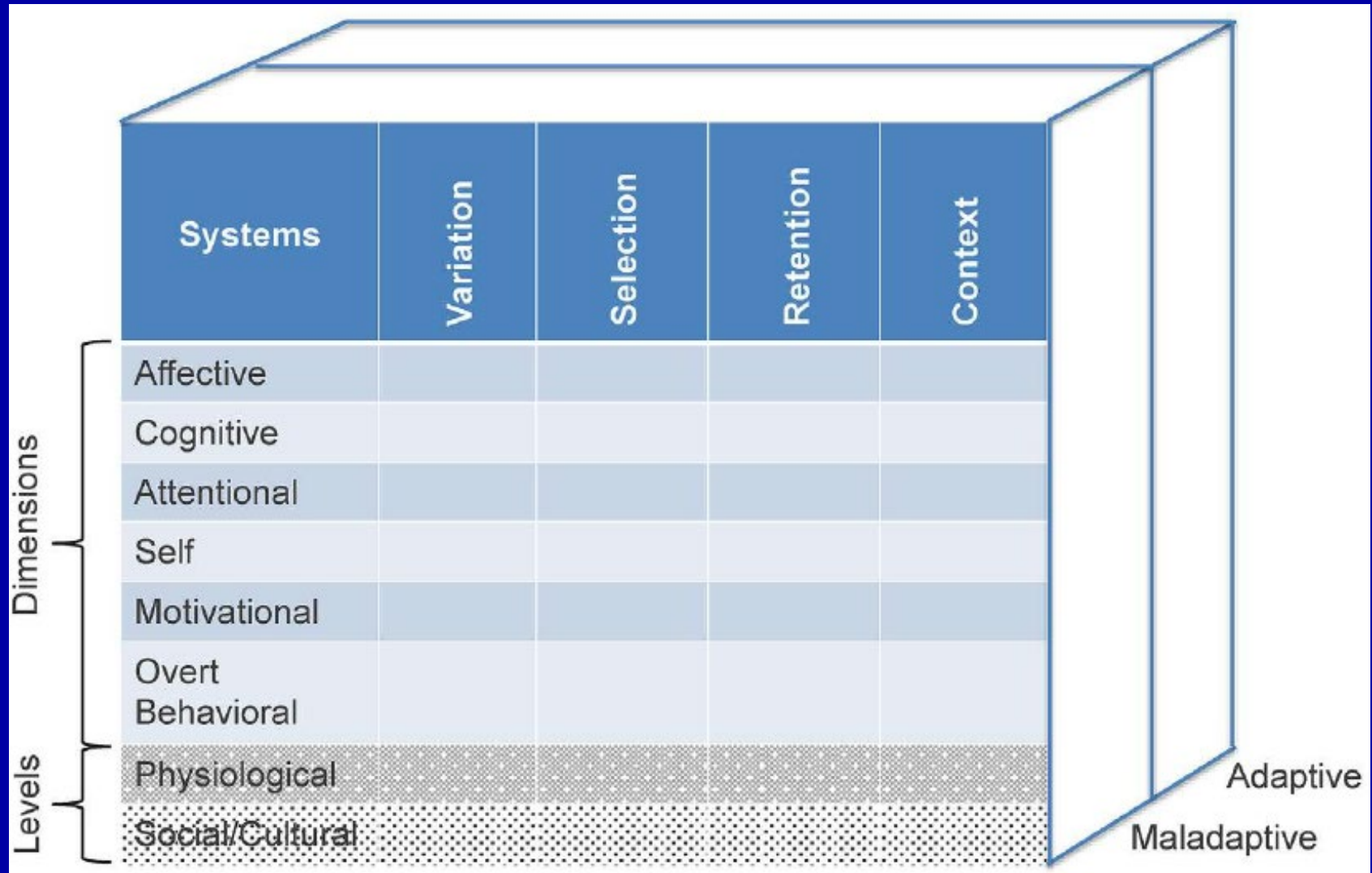
^a University of Nevada, Reno, United States

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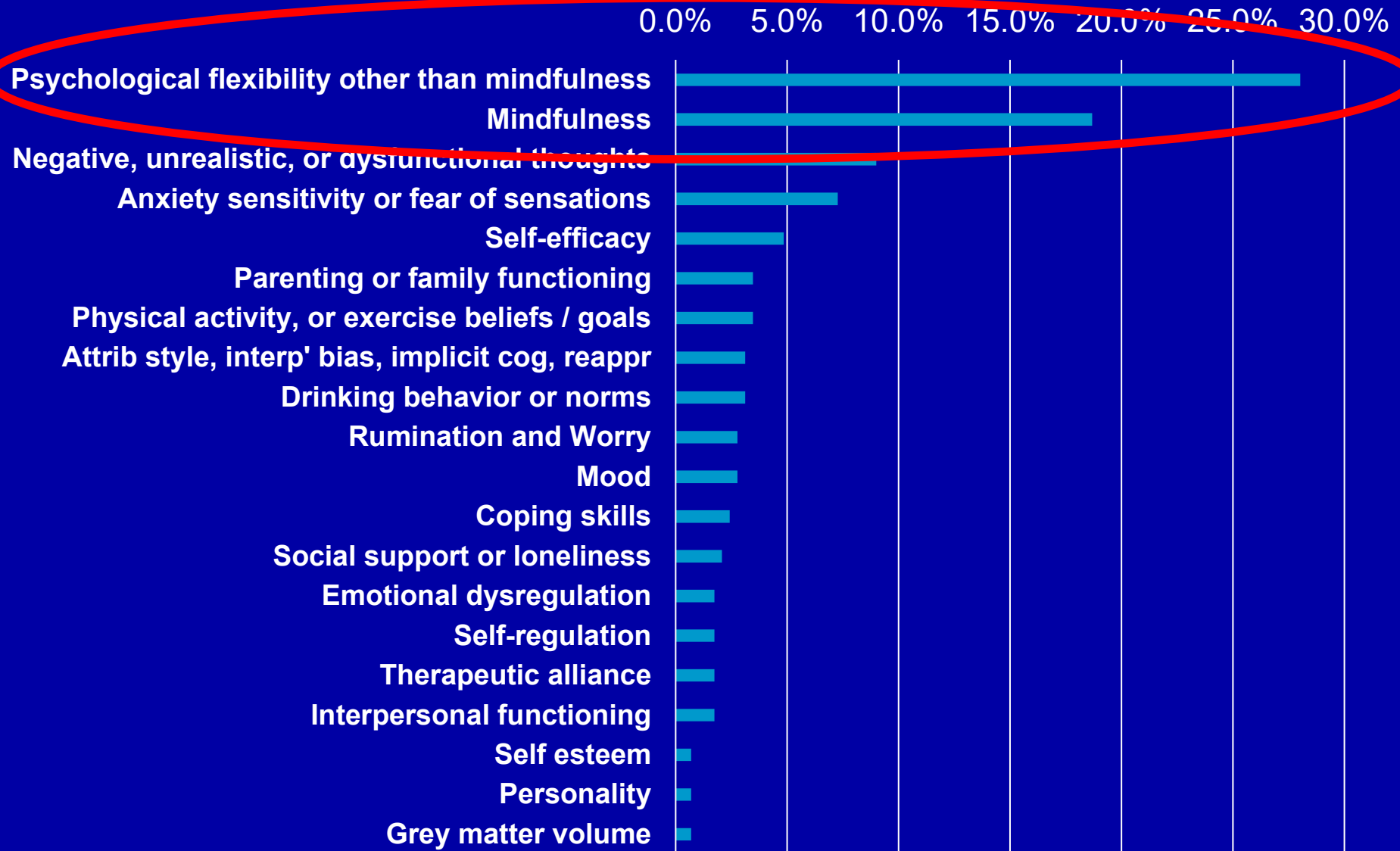
^c Philipps-University, Marburg, Germany and Boston University, Boston, United States

- We examined every single randomized trial ever done on any psychosocial intervention that claimed to properly identify a process of change (“mediational analysis”) for any mental health outcome
- Just under 54,633 studies each rated twice
- 73 replicated measures in 281 correct analyses

An Extended Evolutionary Approach Creates Consilience Among All Replicated Mediators Change



Percentage of Mediation Findings



HEALTHY
VARIATION

FITTED TO
CONTEXT

SELECTED &
RETAINED

OPEN

AWARE

ENGAGED

Emotional
Flexibility

Attentional
Flexibility

Chosen
Purpose /
Consequences

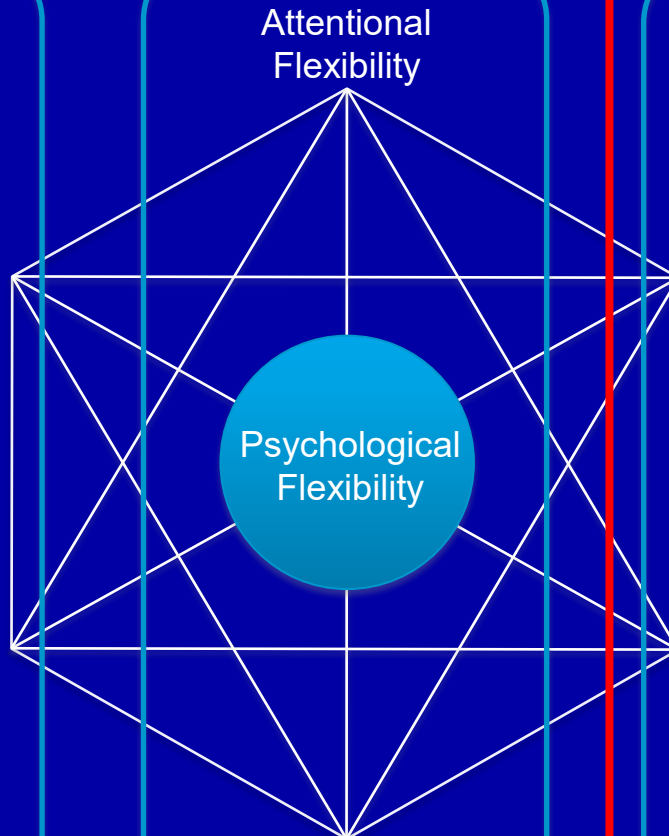
Cognitive
Flexibility

Psychological
Flexibility

Committed
Actions and
Behavioral
Habits

Flexible
Perspective-Taking

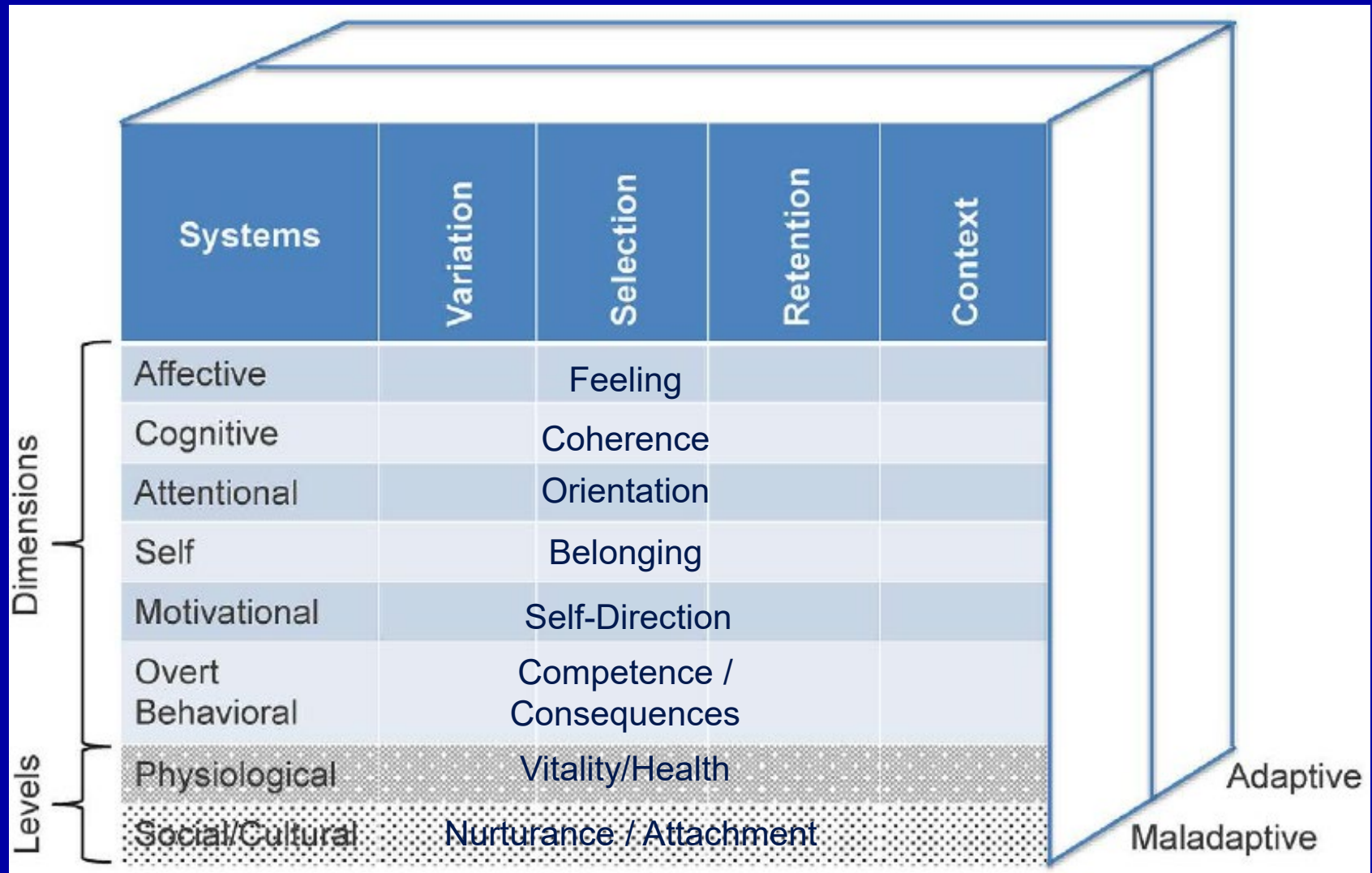
Mindfulness



Extended Psychological Flexibility is the Process Elephant and ...

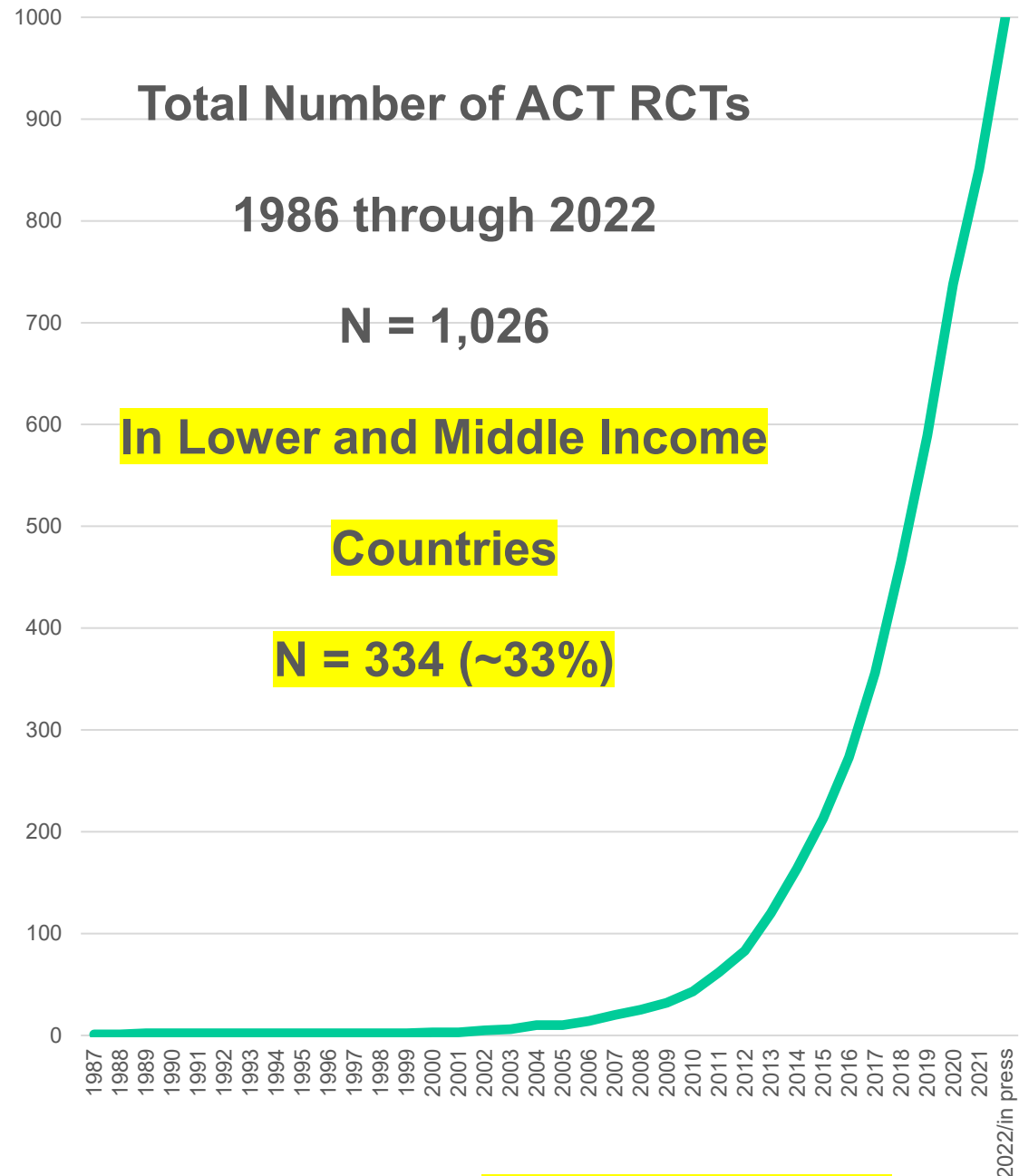


An Extended Evolutionary Approach Fosters Consilience Among Many Other Processes as Well



Does This Apply to LAMICs and the Global South?

**RCTs in
Acceptance and
Commitment
Therapy or
Training (ACT) as
a Major
Psychological
Flexibility Based
Approach**



Source: bit.ly/ACTRCTs

WHO Found that Psychological Flexibility Based Self-Help Applies Across the World to Any Distressing Circumstance

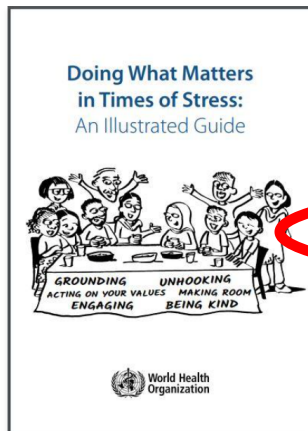
[Health Topics](#) ▾[Countries](#) ▾[Newsroom](#) ▾[Emergencies](#) ▾[Data](#) ▾[Home](#) / [Publications](#) / [Overview](#) / Doing What Matters in Times of Stress

Doing What Matters in Times of Stress

An Illustrated Guide

29 April 2020 | Publication

[Bit.ly/WHO_ACT](https://bit.ly/WHO_ACT)



[Download \(2.7 MB\)](#)

Overview

Doing What Matters in Times of Stress: An Illustrated Guide is a stress management guide for coping with adversity. The guide aims to equip people with practical skills to help cope with stress. A few minutes each day are enough to practice the self-help techniques. The guide can be used alone or with the accompanying audio exercises.

Informed by evidence and extensive field testing, the guide is for anyone who experiences stress, wherever they live and whatever their circumstances.

[Arabic](#)
[Chinese](#)
[Dari](#)
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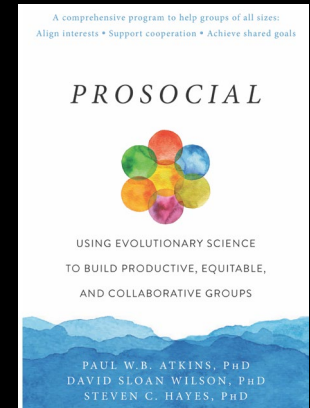
<https://www.who.int/publications-detail/9789240003927>

We Do Need to Socially Extend the Psychological Flexibility Model

Psychological Process	Psychosocial Process
Cognitive Flexibility	Mutual Understanding
Emotional Flexibility	Compassion and Empathy
Perspective-Taking Sense of Self	Attachment and Conscious Connection
Attentional Flexibility	Joint Attention
Chosen Purpose	Shared Values and Social Consequences
Committed Actions	Shared Commitments and Cooperation

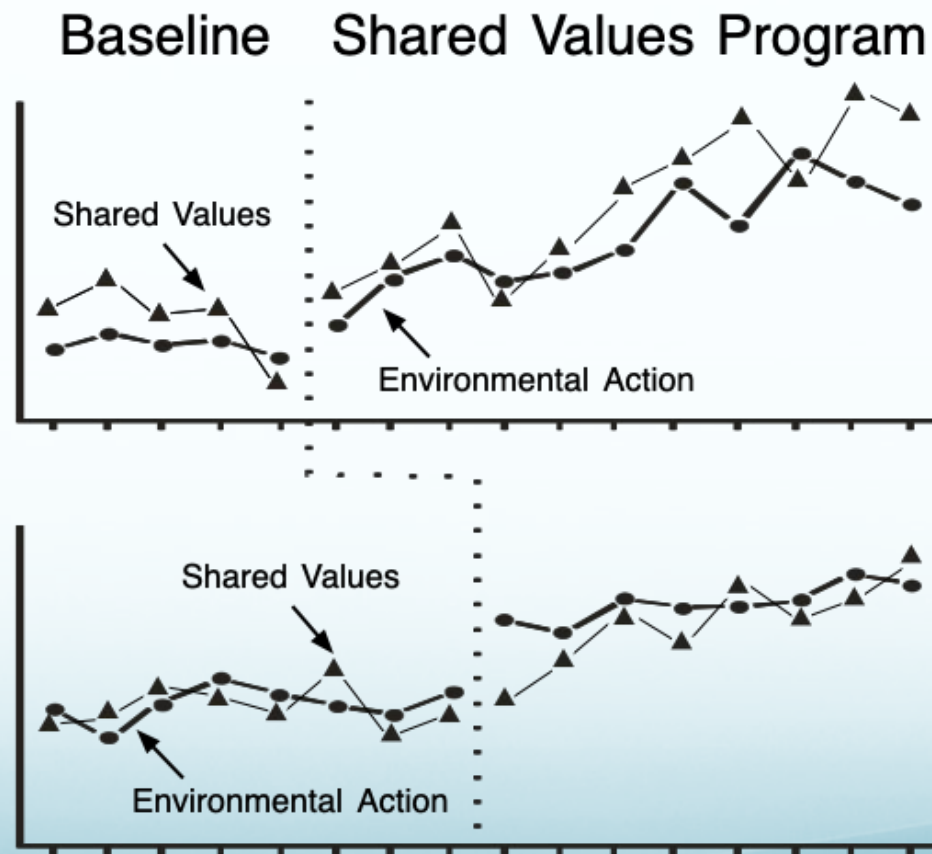
And Combine Psychological Flexibility with Purely Social Processes Such as Elinor Ostrom's Nobel Prize Winning Core Design Principles

- 1) Clear purpose and delineation**
- 2) Fair balance of benefits and costs**
- 3) Choice in how decisions are made**
- 4) Monitoring of agreements**
- 5) Graduated consequences**
- 6) Conflict resolution mechanisms**
- 7) Right to organize**
- 8) Nested enterprises**



www.prosocial.world

Then Test Processes and Outcome Longitudinally Within Groups

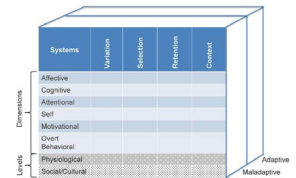


Climate Change and Distress Needs a Rapid Iterative Form of Beh'l Science

1. Test Modularized Interventions that are
2. Focused on Process to Outcome Linkages
3. Evaluated longitudinally so we can
4. Broaden and build packages that work

Underneath the cacophony there's consilience about the processes to target

Let's Get to It!



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