

Designing a study with intensive longitudinal assessments



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Home

Welcome to the website of the *iLab* Psychiatry. On this website you will find **background information** about the *iLab*, the **idiographic method** and the **core tasks** of the *iLab*.

ilab-psychiatry.nl

Prof. P. de Jonge



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Intensive longitudinal assessments

Experience Sampling Methodology (ESM)

Ecological Momentary Assessments (EMA)



Ambulatory assessments


Daily diary




Macro-level: mental disorders



DE**PRE**SSION

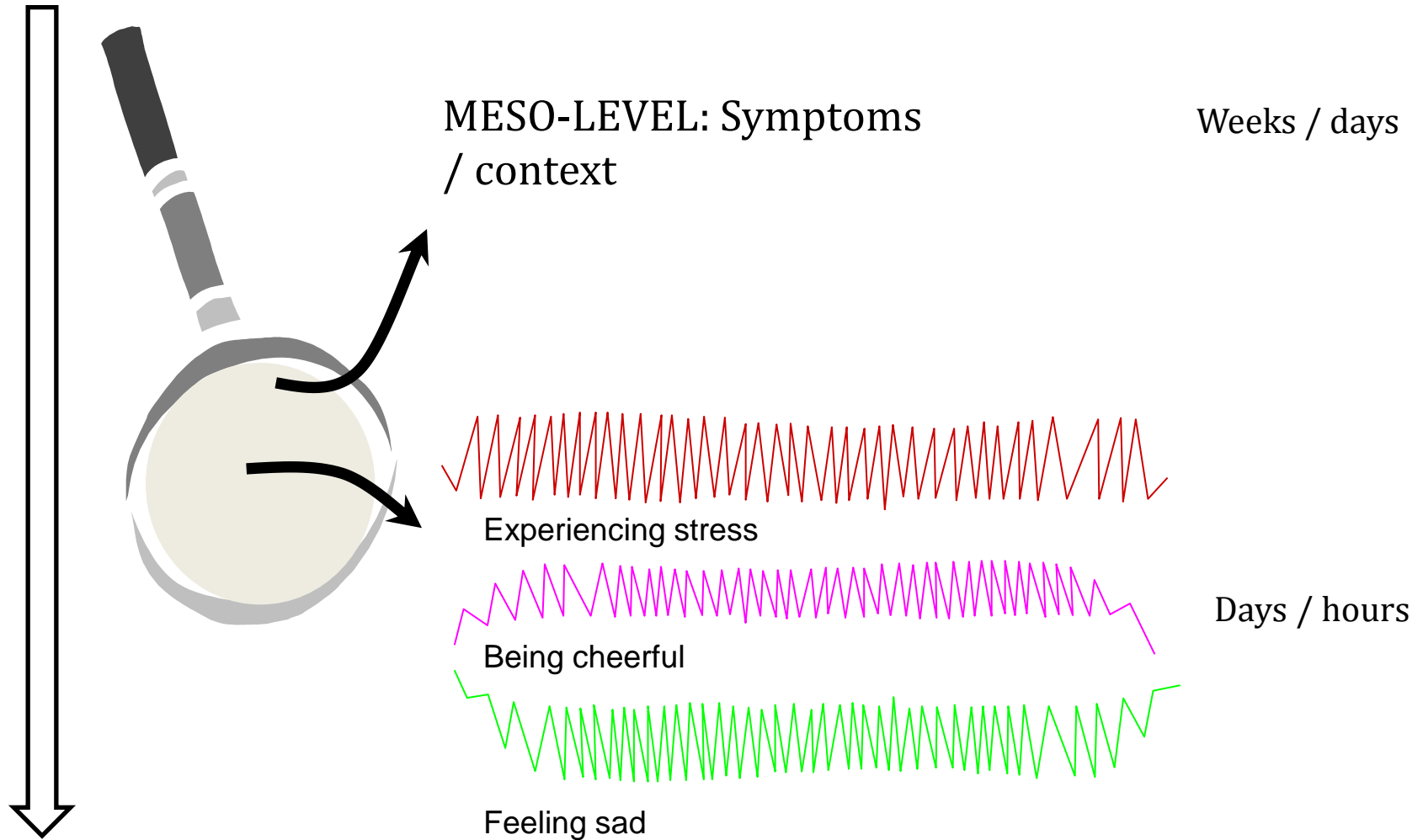


PSY**CHO**SIS



PSYCHO**PAT**HODOLOGY

Experience Sampling: Micro level



MICRO-LEVEL: dynamics of experiences and context in daily life

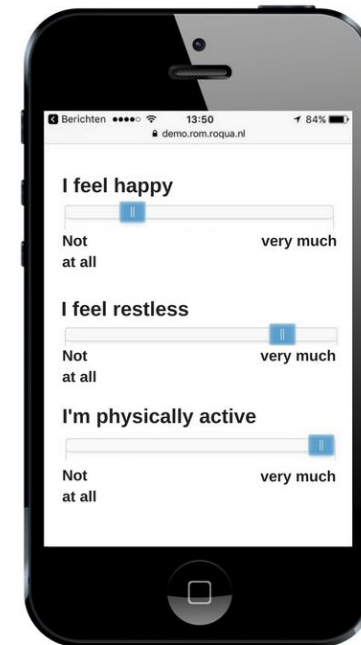
The Experience Sampling Method

Affect, behavior, cognitions, &
context

In the moment

Multiple times a day

(Semi)random or fixed time intervals



Csikszentmihalyi & Larson, 1987; Delespaul, 1995 ; Myin-Germeys et al., 2009

Which concepts?

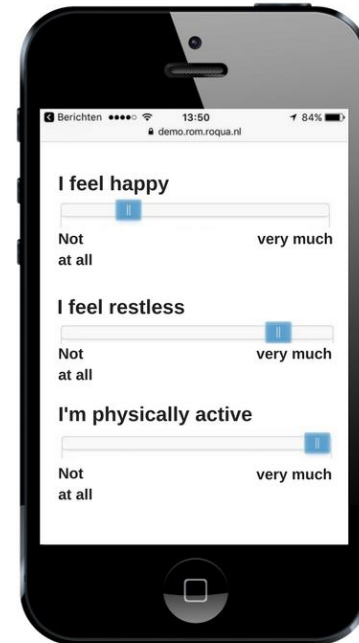
Examples:

Positive affect / negative affect / Stress

Social interactions / social context

Physical activity / Activities

Worry / attention



DO use items

From other ESM studies

You validated yourself

About the now /past few hours /
past day

“In the past 3 hours, I talked with
others”

With a continuous time scale

“Not.... Very much”

Don't use items

From validated macro
questionnaires

“I tend to avoid my negative
thoughts”

“I think I am worthless”

That need reflection

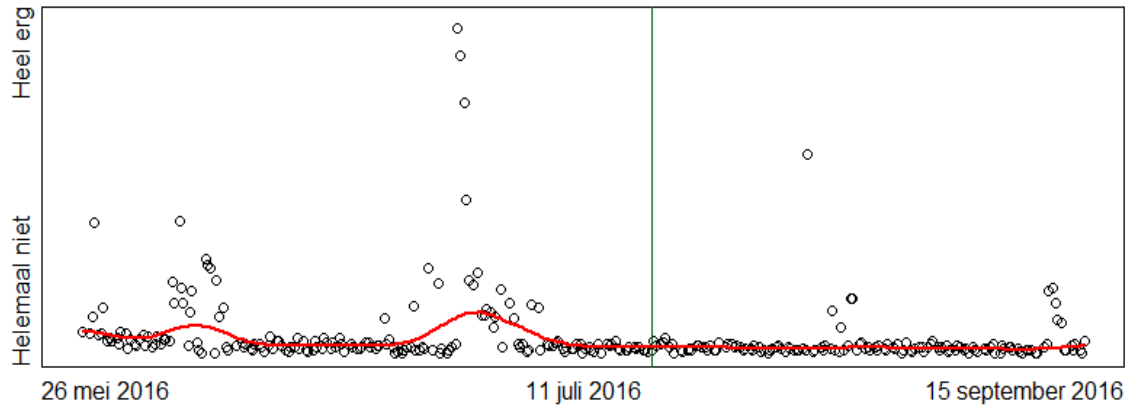
“I was thinking about something else
than I was doing just before the
beep”

That are conditional

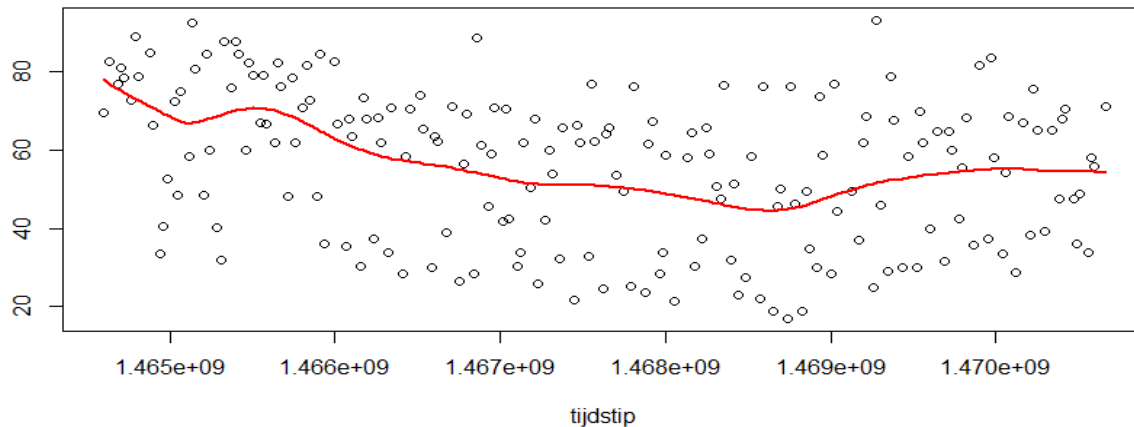
“I talked about my negative feelings”

Choose items that fluctuate within your target population

Feeling anxious



Physical activity



Present moment or since the last beep?

Momentary

Increased validity

Reduced retrospective bias

- Mood / cognitive factors

(social) context & behavior:
more assessments a day

Retrospective

When retrospect is of
interest

When little bias is induced
by current affect

- Behavior / context

Fewer assessments a day

How many assessments a day?

1. Fluctuation rate assessments:

- affect: Short time intervals
- retrospective questions: fewer
- sleep: daily
- Questions on the whole day:
 “Today, I structured my activities”

How many assessments a day?

2. How fast are the dynamic effects?

Fast: more assessments a day

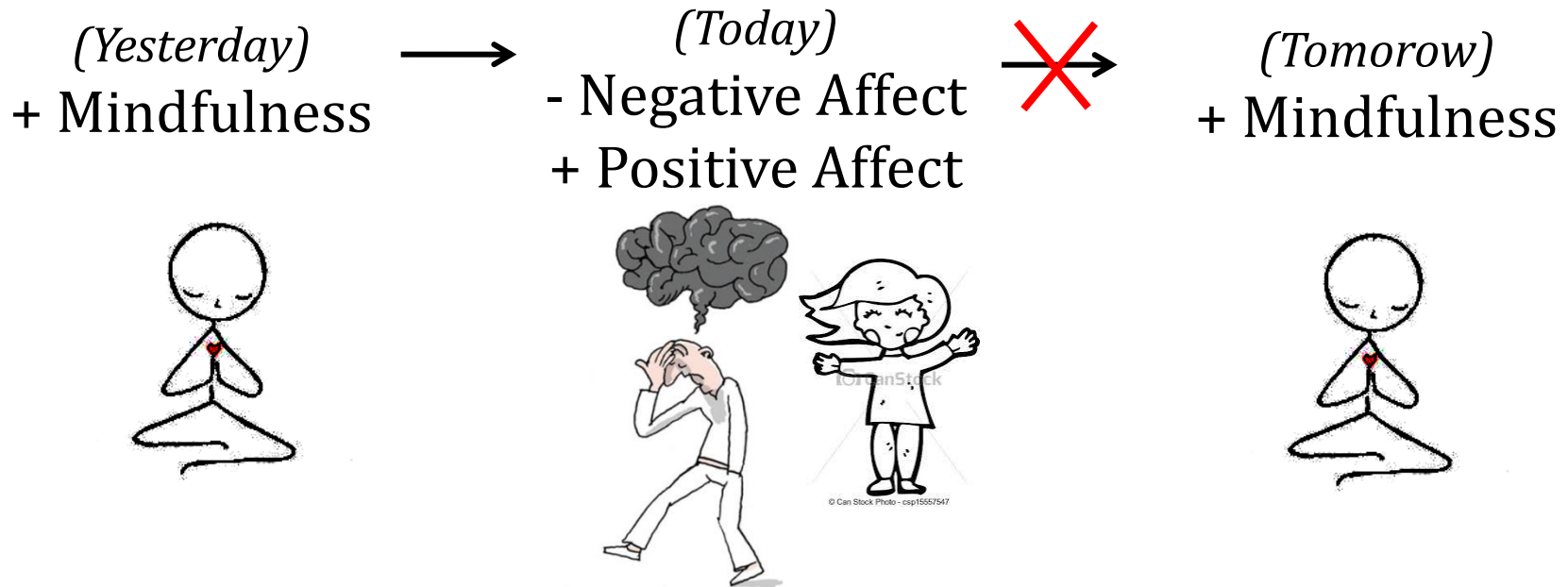
Slow / long lasting effects: fewer assessments a day

Example dynamic associations:

Prosocial behavior (past 6 hours) and Positive Affect (momentary)

Snippe, Jeronimus et al., 2017, *Journal of Personality*

Daily fluctuations in mindfulness predict fluctuations in affect the day after, not the other way around

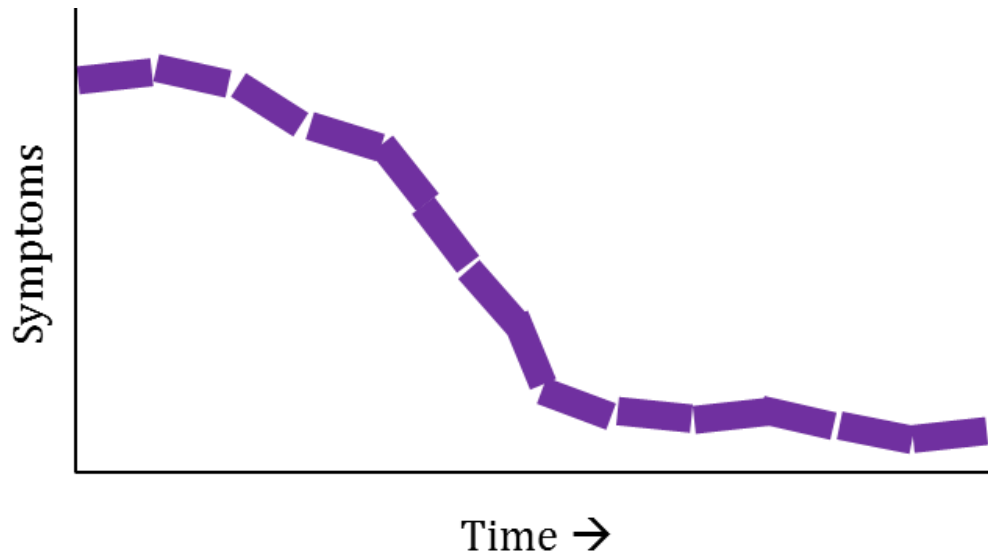


NOTE: Gotink et al., 2016 found not day-to-day associations, only moment-to moment!!

How many assessments a day?

2. What is feasible?

- long assessment period : 10 assessments is not feasible



E.g. during psychological treatment

Random or Fixed?

Random

Increased ecological validity

More assessments a day

Shorter time period (days)

Fixed

Equidistant time points

Fewer assessments a day

Longer time period (weeks)

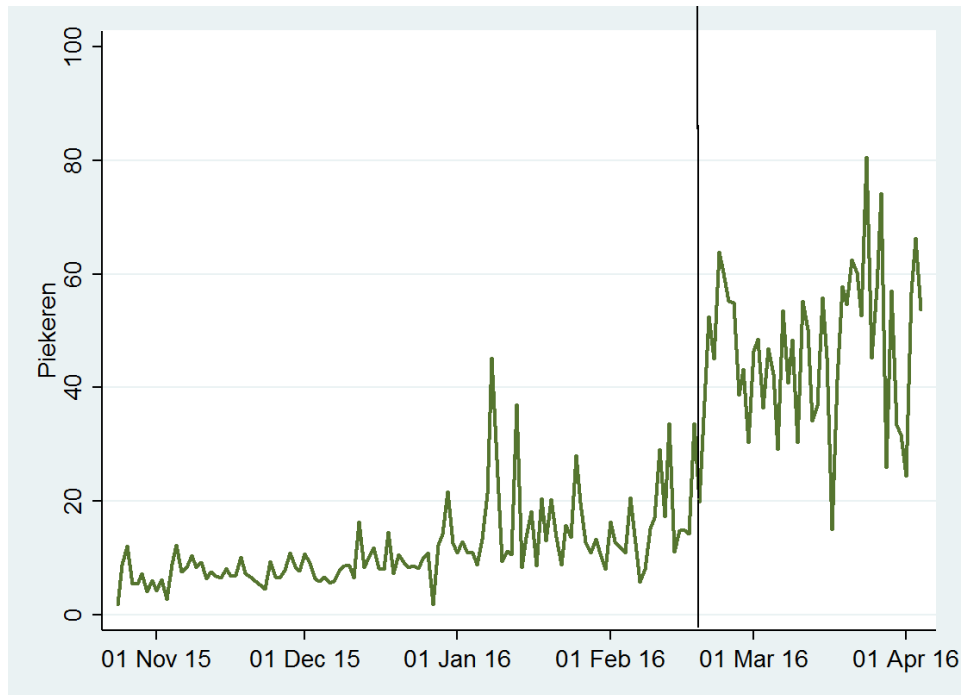
OR: event contingent!

After social interaction, smoking, stress event

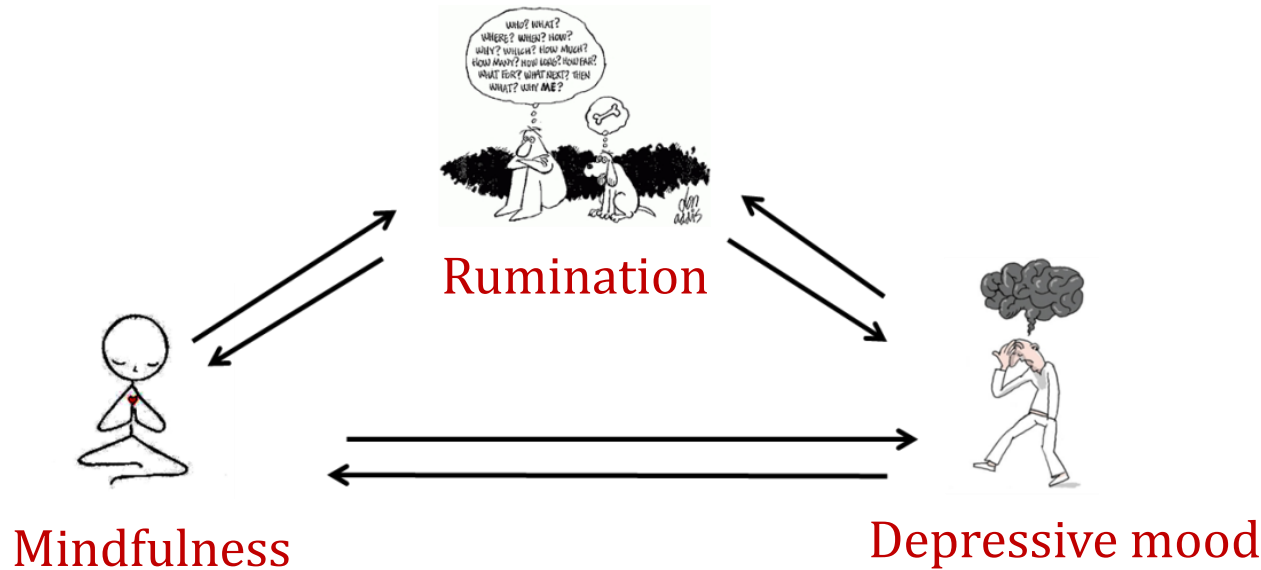
Choose a period that is stationary

Problems with detrending in non-stationary time-series

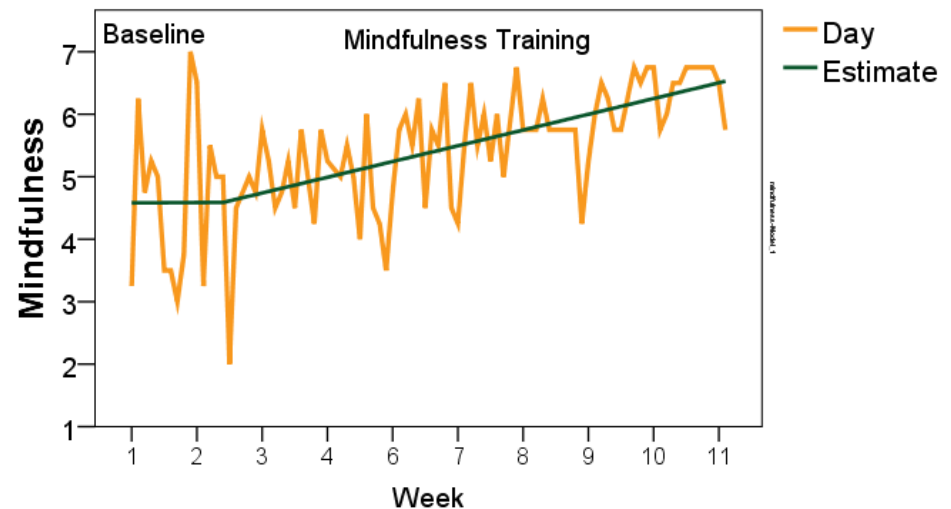
- Trend may have any form
- Nothing left if you detrend too much



Dynamic associations during treatment might change over time



Snippe, Bos, et al.,
2015, *Mindfulness*



Do: pilot before you start!

Check:

- Understanding of items
- Variability in items
- Feasibility
- Concurrent / lagged associations present?
- Redundant items: PCA?

Thank you



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