

Sudden gains in cognitive therapy for PTSD

Can large and stable improvements between sessions help us to understand how therapy works?



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Prof. Anke Ehlers and Prof. David M. Clark

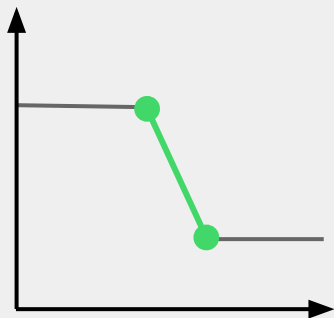
Oxford Centre for Anxiety Disorders and Trauma



Overview

Sudden gains

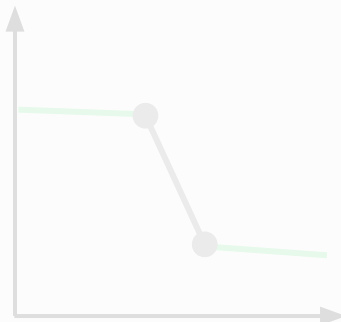
- What are sudden gains?
- What has been done?



Study

Sample 1

Sample 2



R package

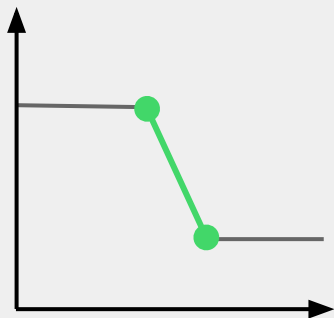
- Why?
- What are the functions?
- What's next?



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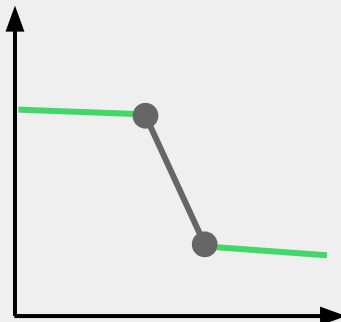
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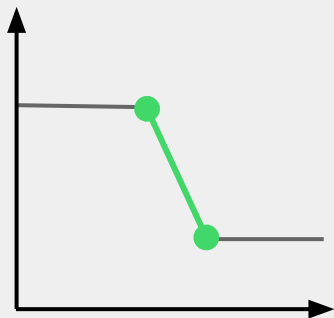
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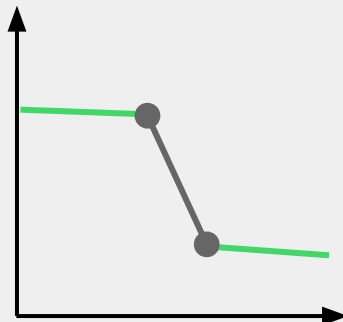
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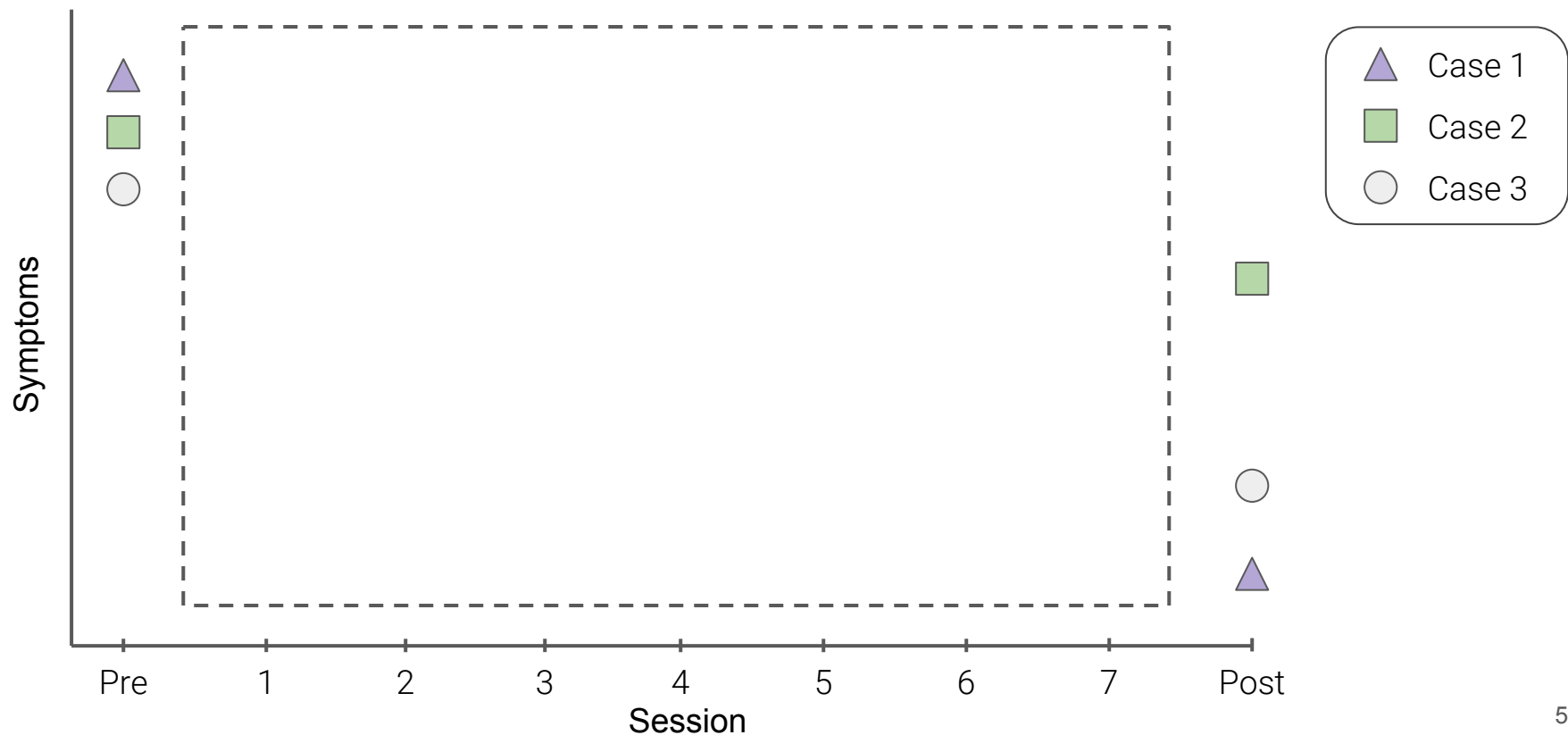


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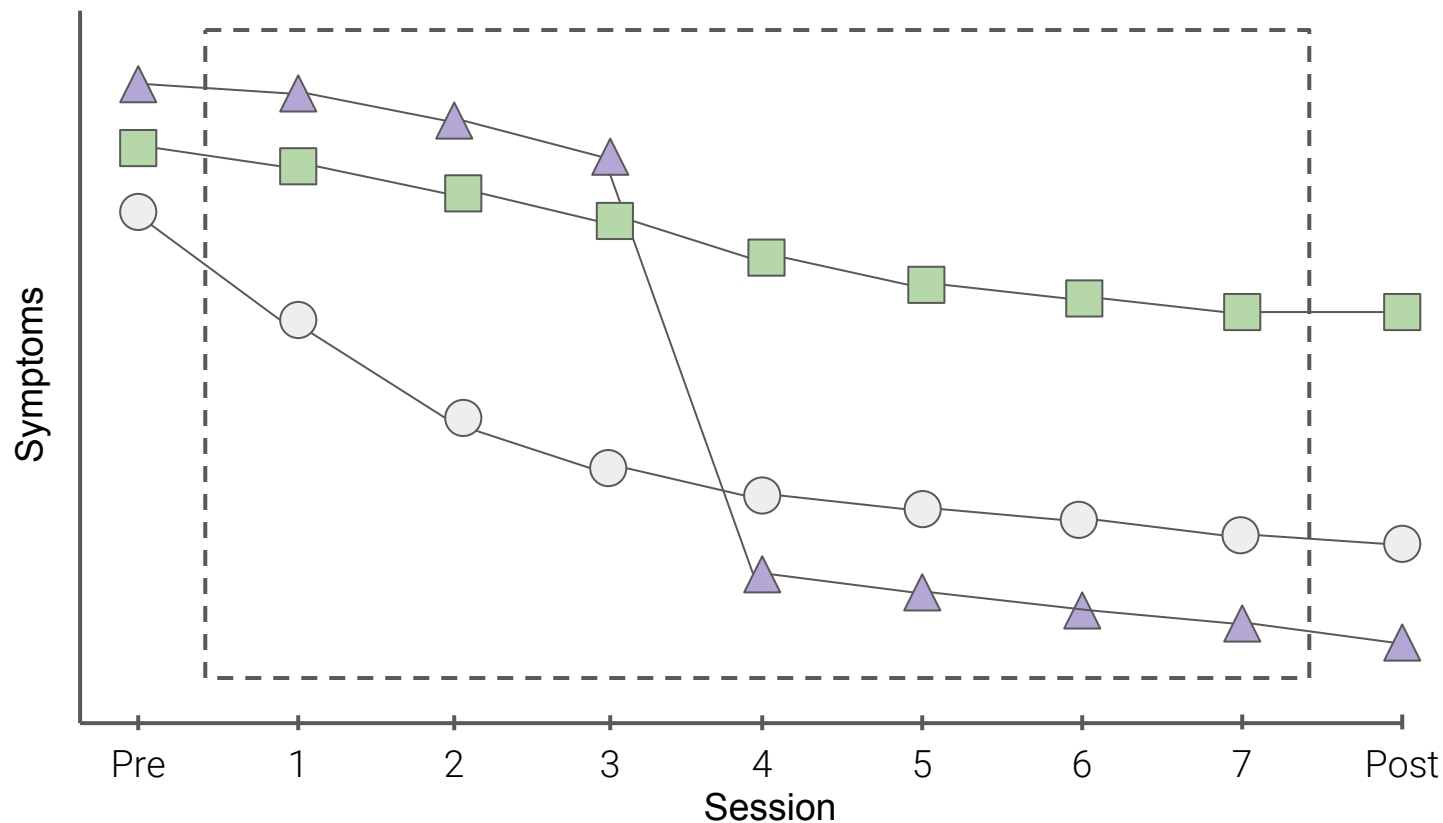
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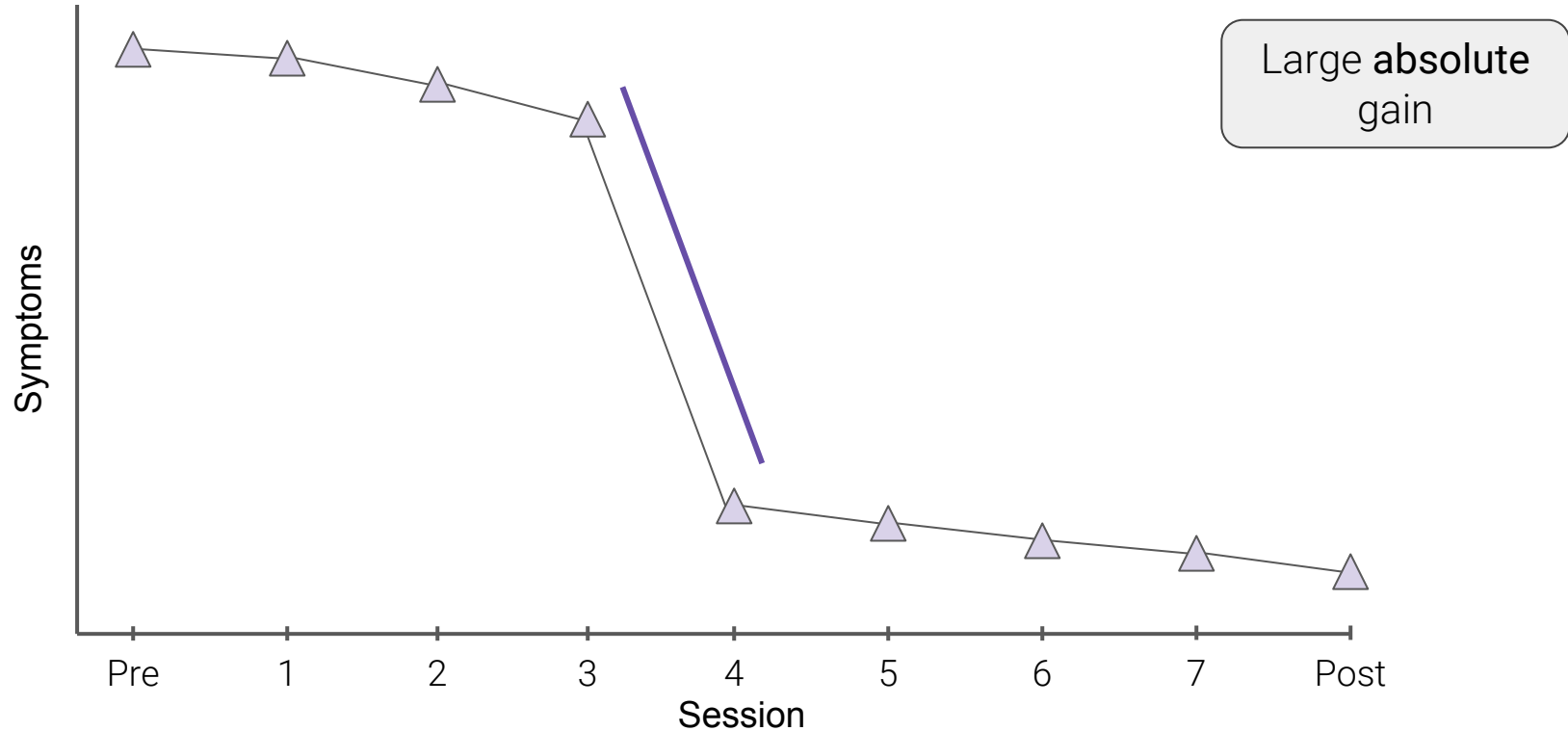
Therapy trajectories between pre & post?



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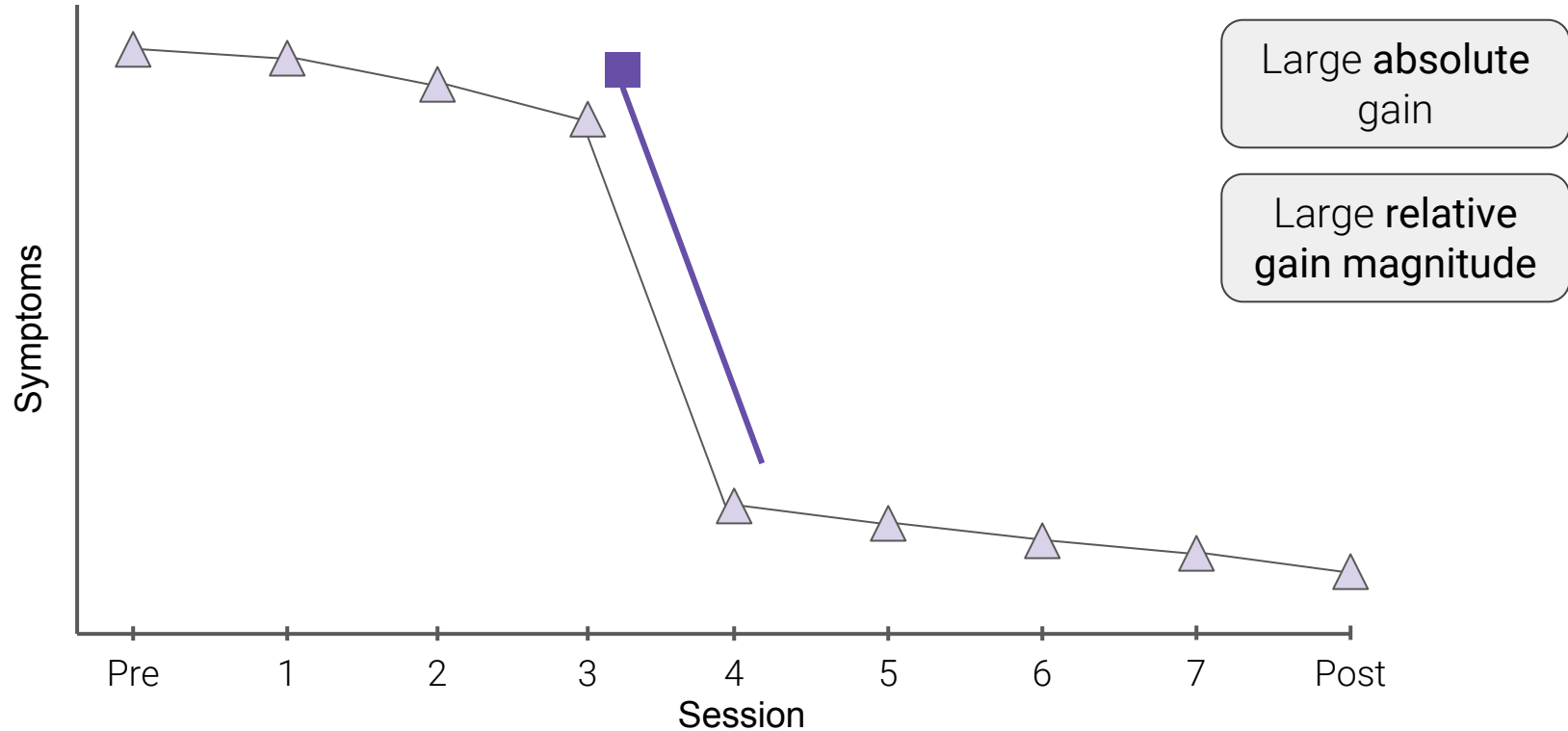


Definition of sudden gains



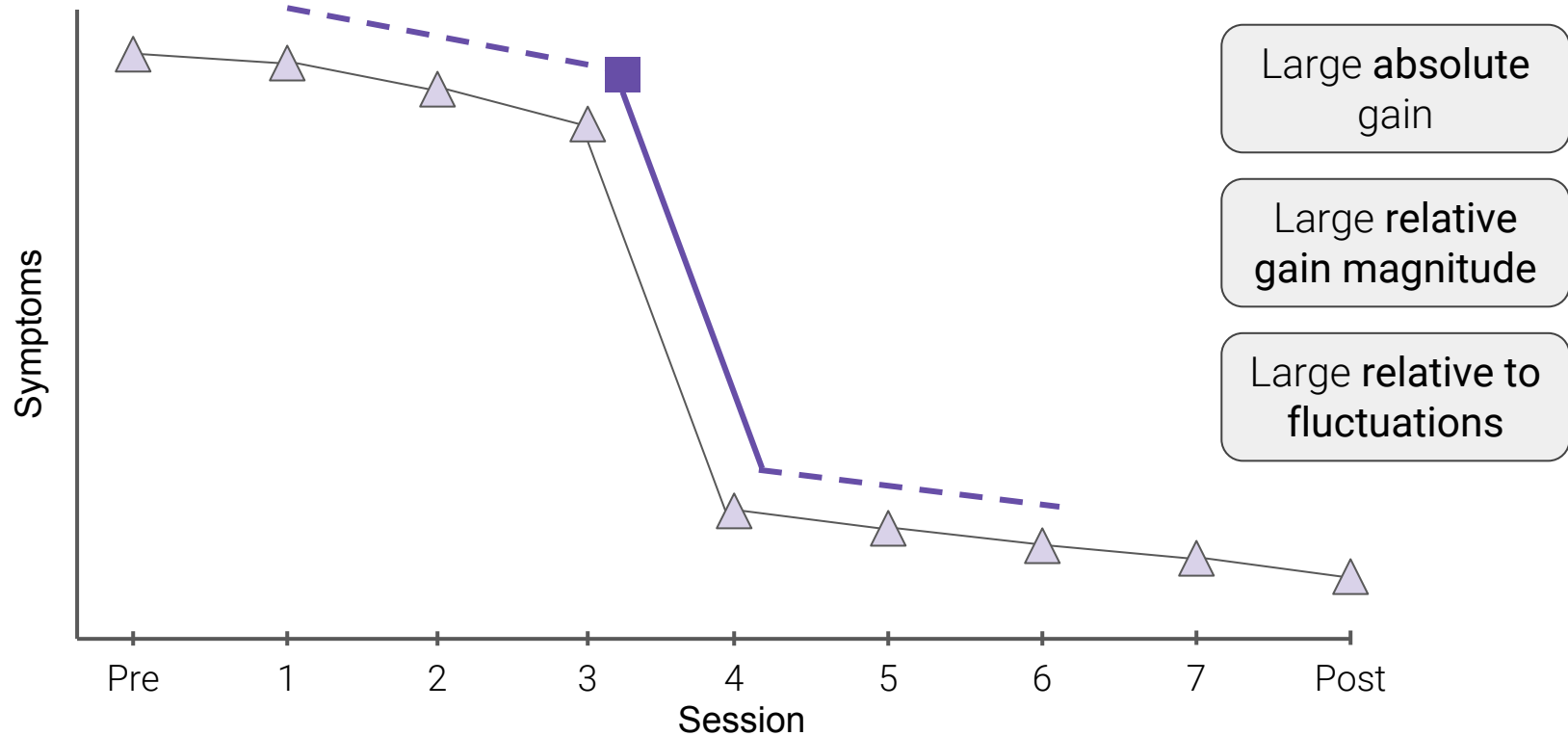
* Based on Tang & DeRubeis (1999)

Definition of sudden gains



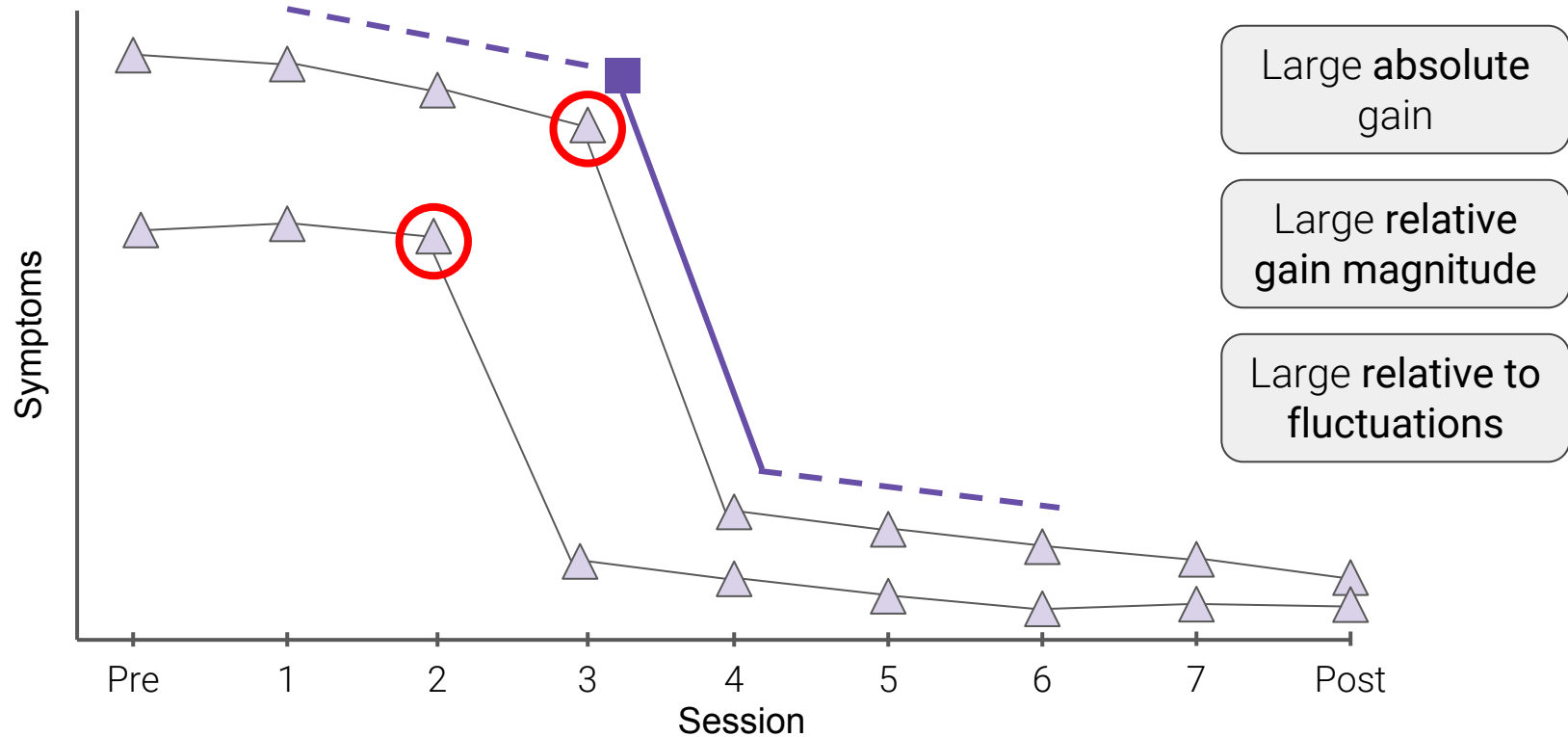
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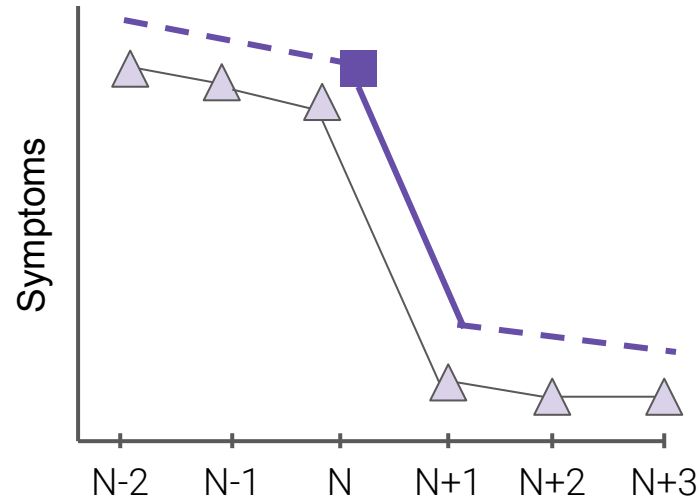
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Definition of sudden gains



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Identifying sudden gains - Step by step



id	s1	s2	s3	s4	s5	s6	s7
1	60	50	40	30	20	10	10
2	55	55	50	20	NA	10	0
3	50	40	30	30	30	20	10
4	50	40	50	40	30	5	0

Large **absolute** gain

Large **relative** gain
magnitude

Large **relative** to
fluctuations

Summary of the sudden gains literature

YES

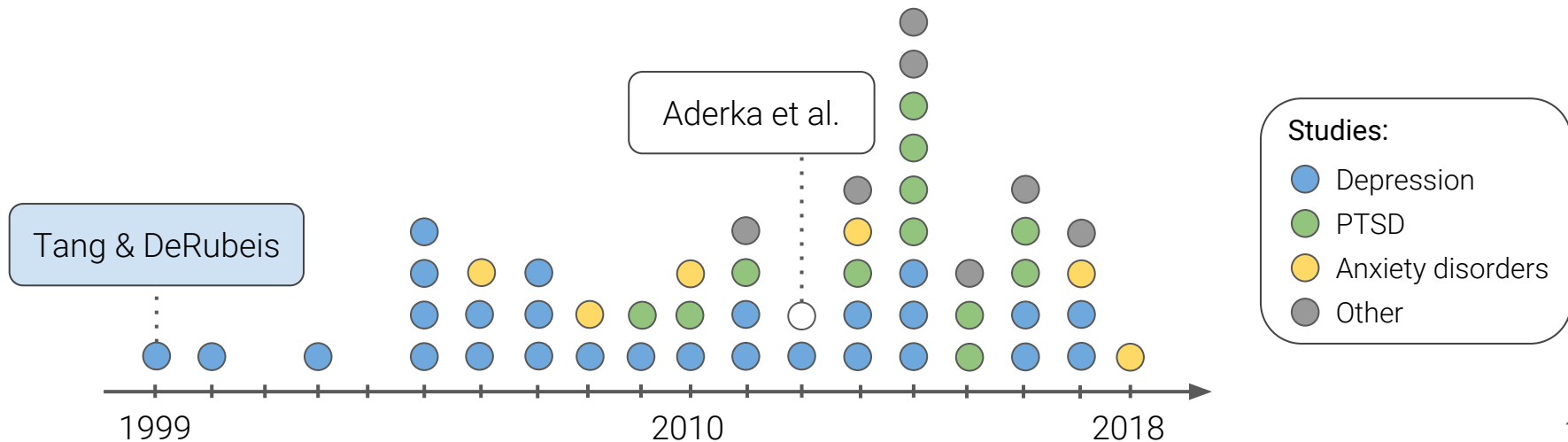
Are sudden gains linked to better treatment outcome?

Why?

???

What happens before and after sudden gains?

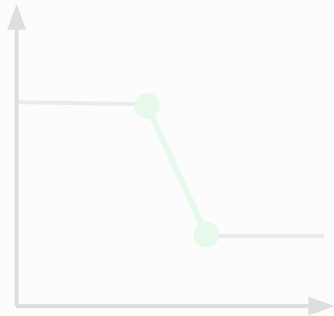
How do people with and without sudden gains differ?



Overview

Sudden gains

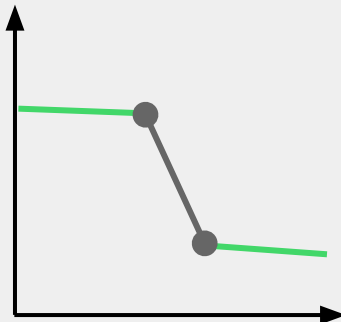
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Key challenges & Aims

Limited studies in **routine care**

Differences in
methods used to

Identify

Analyse

Few studies* with **control group**

Routine clinical care

Identical
methods

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Matched control group

* No PTSD studies with control group.

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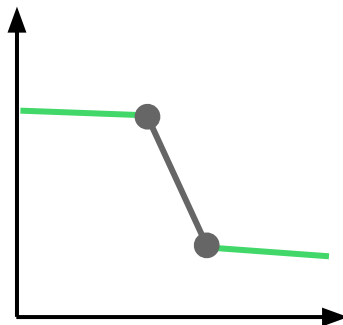
Research questions

How do process variables^{*1} and symptoms^{*2} change **before, during, and after** sudden gains?

^{*1} Negative appraisals, memory characteristics.

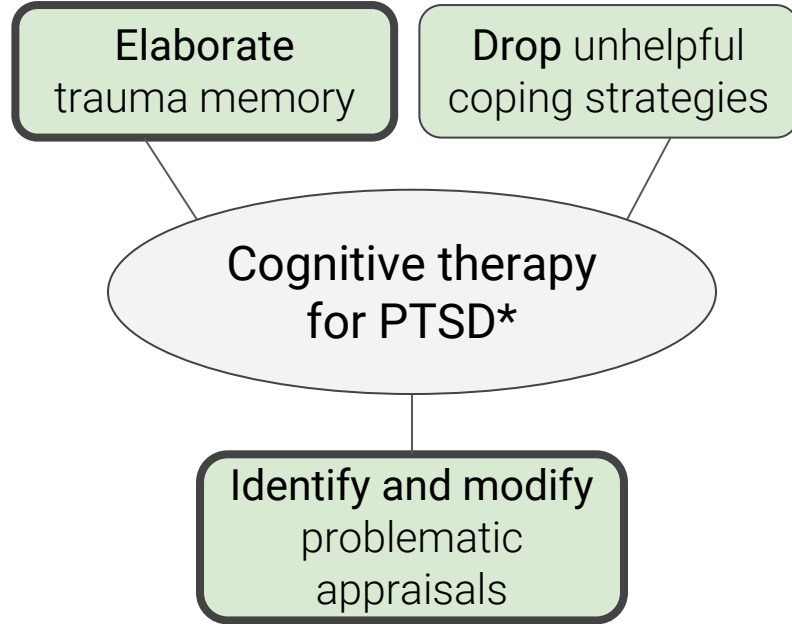
^{*2} Depression and anxiety symptoms.

Baseline
Predictors of
sudden gains?



Differences in
treatment outcomes
at **end** and **follow up**?

Treatment & Samples



Sample 1

2001 - 2008

($n = 248$)

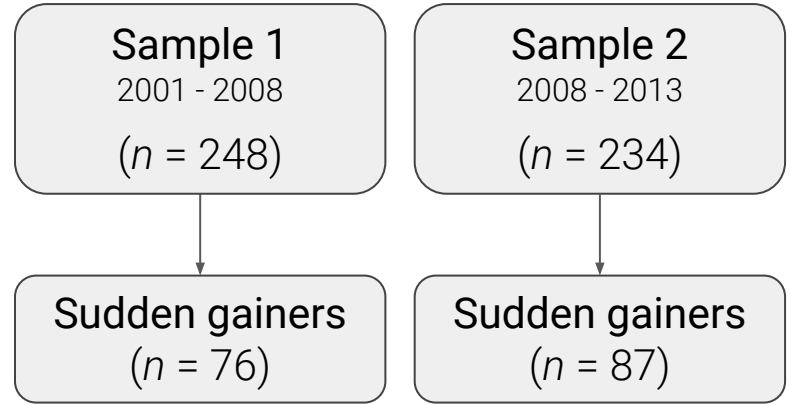
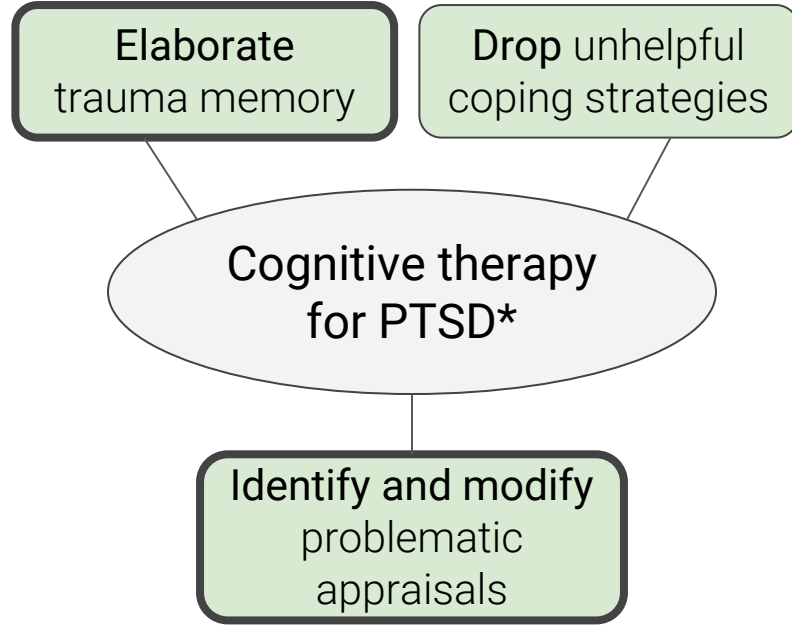
Sample 2

2008 - 2013

($n = 234$)

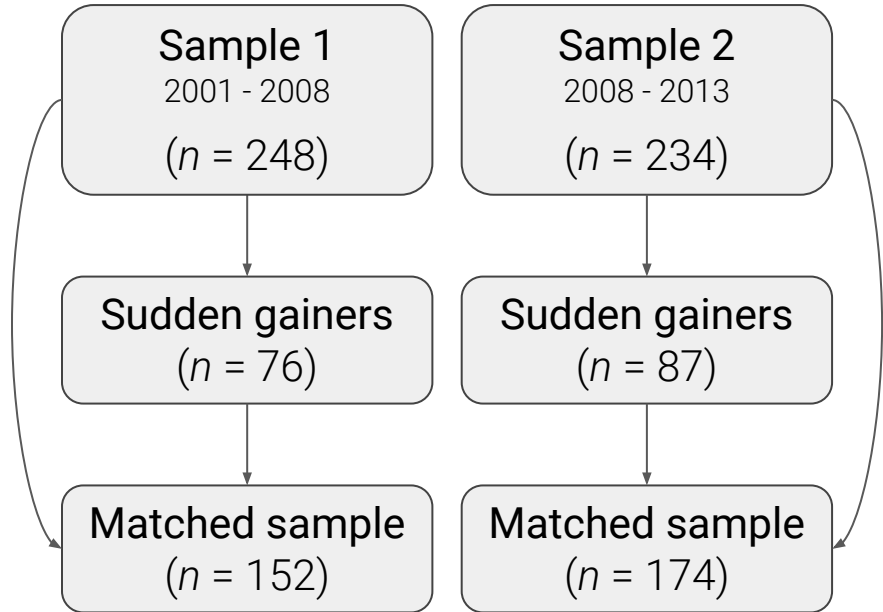
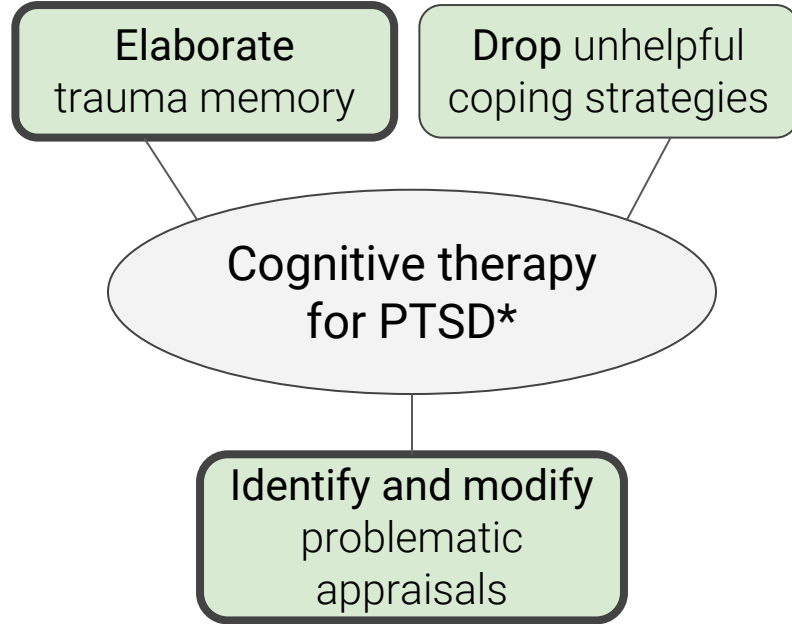
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Treatment & Samples



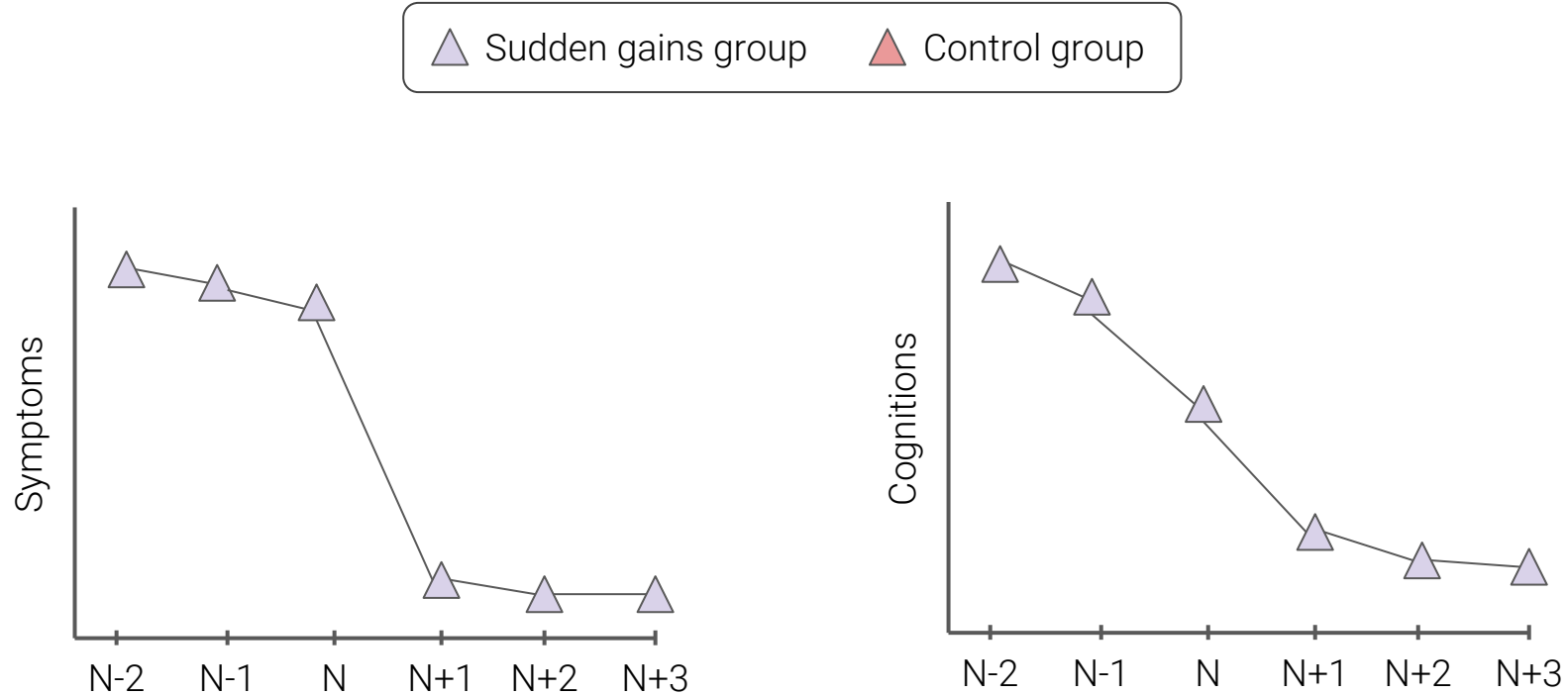
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Treatment & Samples

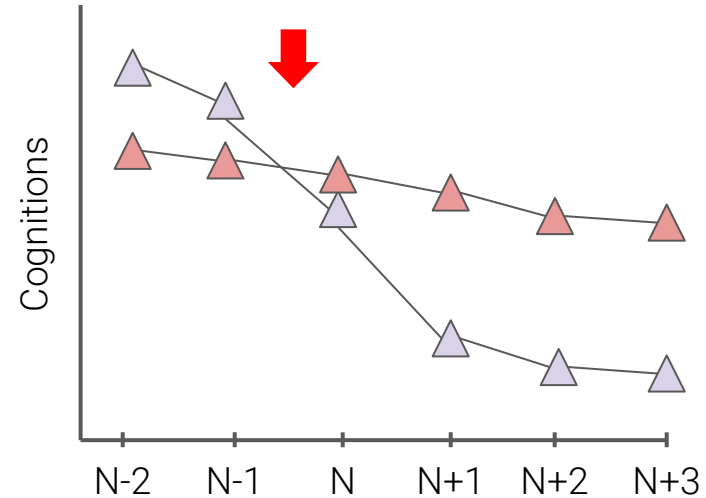
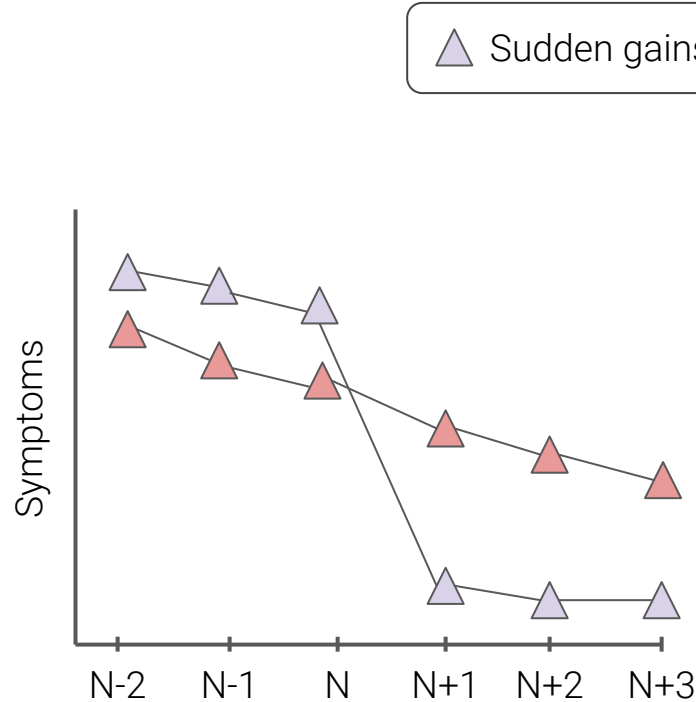


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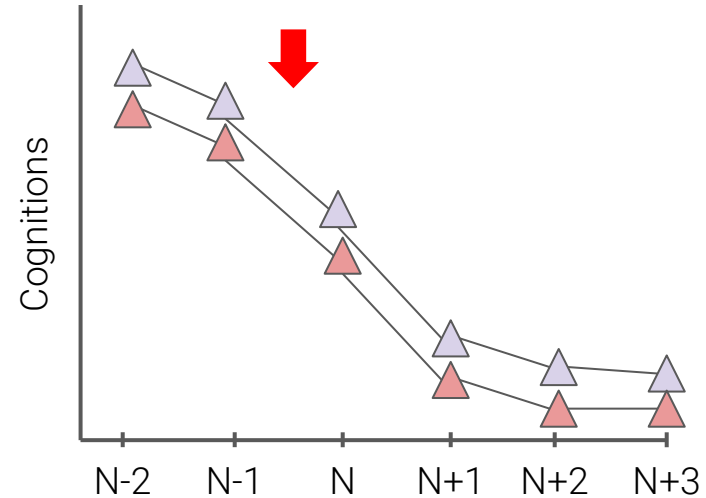
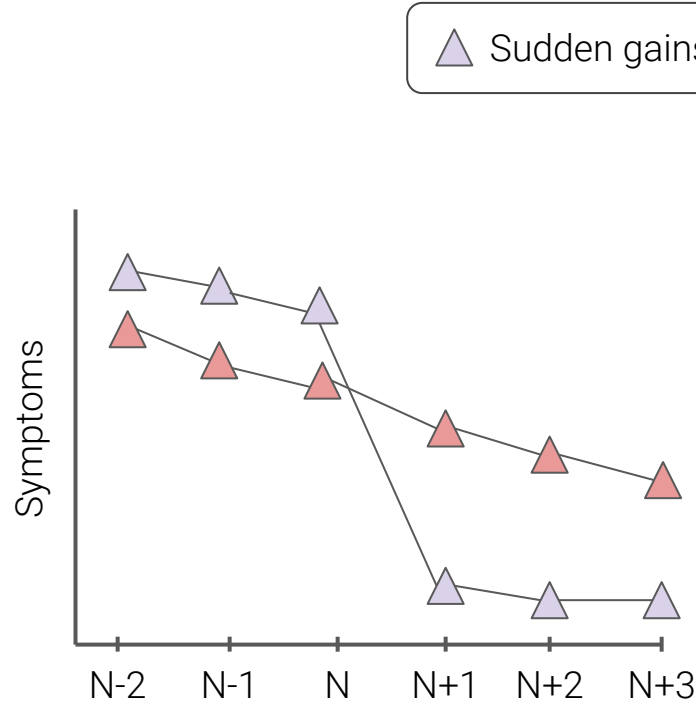
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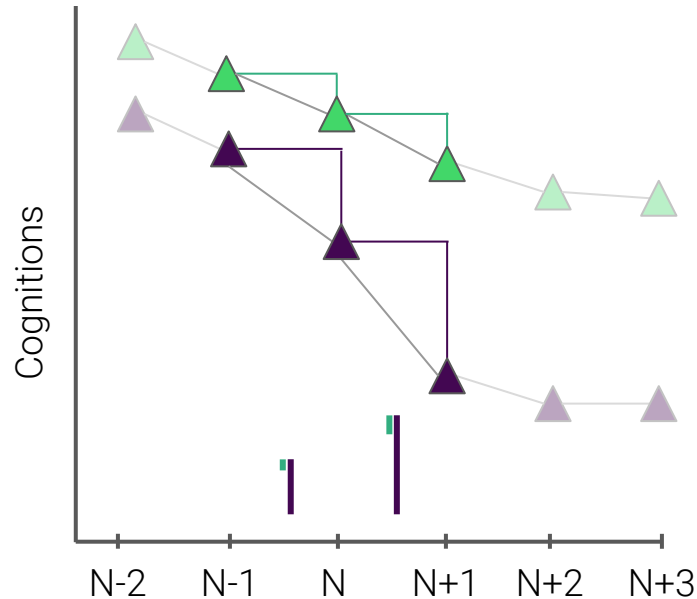
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Modeling approach

▲ Matched patients without sudden gain ▲ Patients with sudden gain

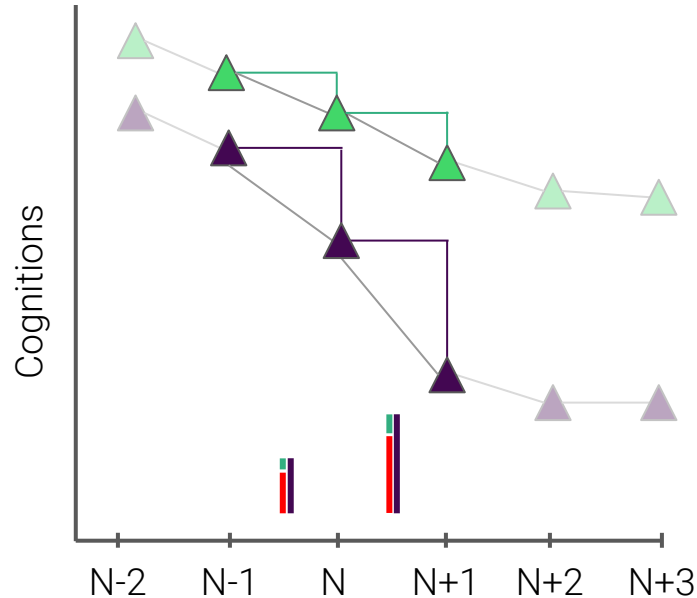
Change between
two time point
within each group



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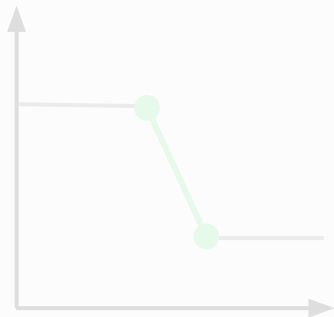


Difference in
change between
the groups

Overview

Sudden gains

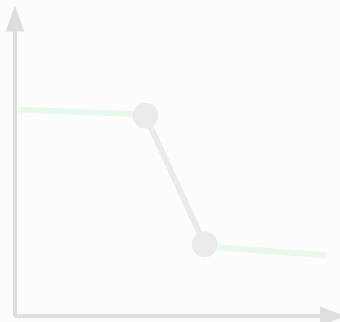
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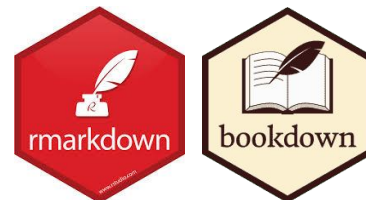
> What is  ?

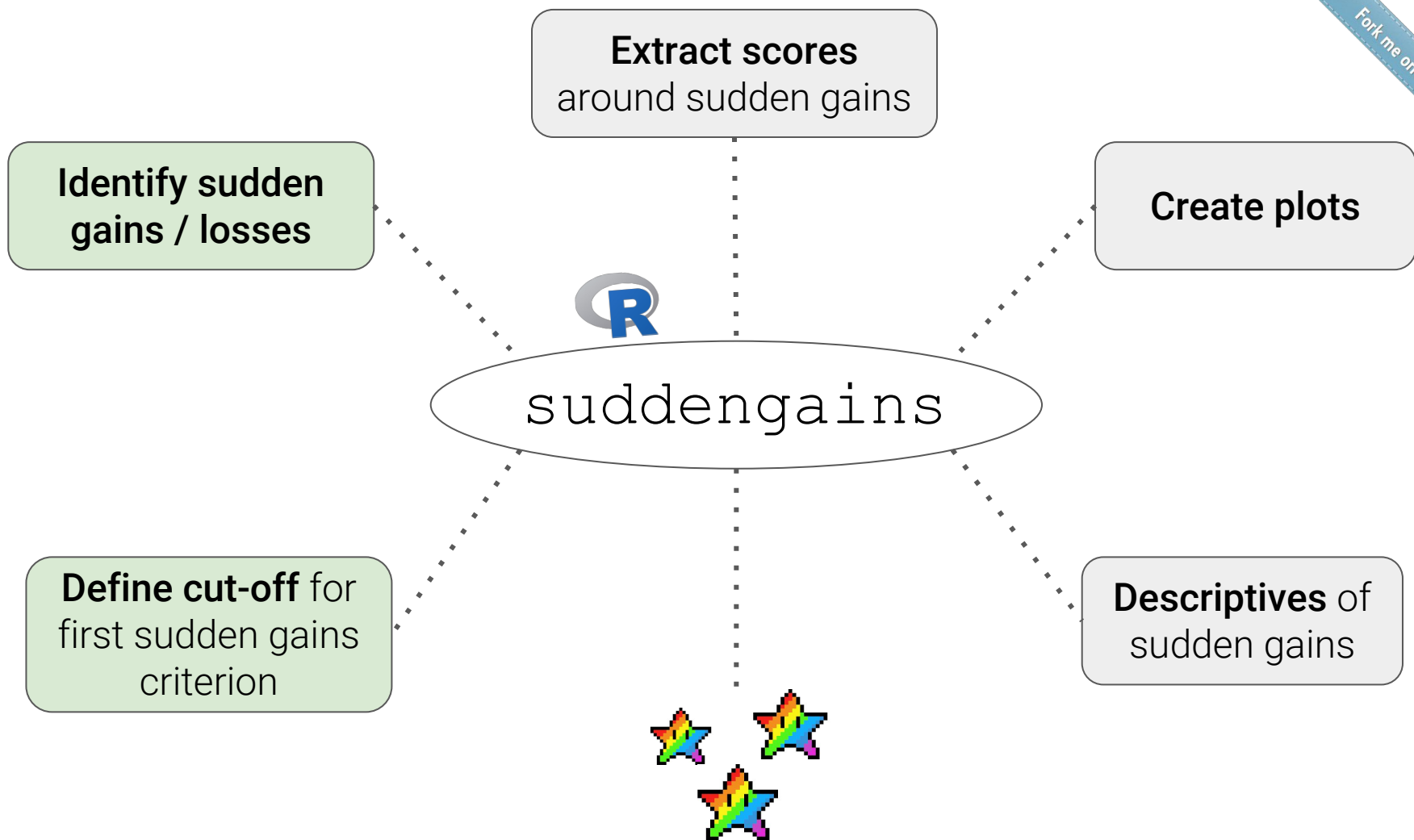


nlme

lavaan
latent variable analysis

papaja 





```
# Identify sudden gains and create dataset with all sudden gains
data_bysg <- create_bysg(data = data_pds,
  cutoff = 6.705612,
  id_var_name = "id", sg_var_name = "pds_s", var_start = "pds_s0",
  identify_sg_1to2 = FALSE,
  include_s0_extract = TRUE)
```

```
# Create dataset with one SG per person
data_byperson <- create_byperson(data = data_bysg, data_bysg)
```

WORK IN PROGRESS

Dataset with all sudden gains

id	id_sg	sg_crit123	sg_freq_byperson	sg_session_n
126	126_sg_2	1	3	2
126	126_sg_6	1	3	6
126	126_sg_8	1	3	8
84	84_sg_7	1	2	7
84	84_sg_6	1	2	6
86	86_sg_9	1	2	9
86	86_sg_3	1	2	3
94	94_sg_3	1	2	3
94	94_sg_2	1	2	2

Dataset with one SG per person

id	id_sg	sg_crit123	sg_freq_byperson	sg_session_n
126	126_sg_2	1	3	2
84	84_sg_6	1	2	6
86	86_sg_3	1	2	3
94	94_sg_2	1	2	2
109	109_sg_3	1	2	3
2	2_sg_6	1	1	6

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Nickless



Dr. Graham
Thew



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