Processes of change in cognitive therapy for PTSD

Taking a closer look at how therapy works

MentalHealth ResearchUK Scholar's Day 2019

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Oxford Centre for Anxiety Disorders and Trauma

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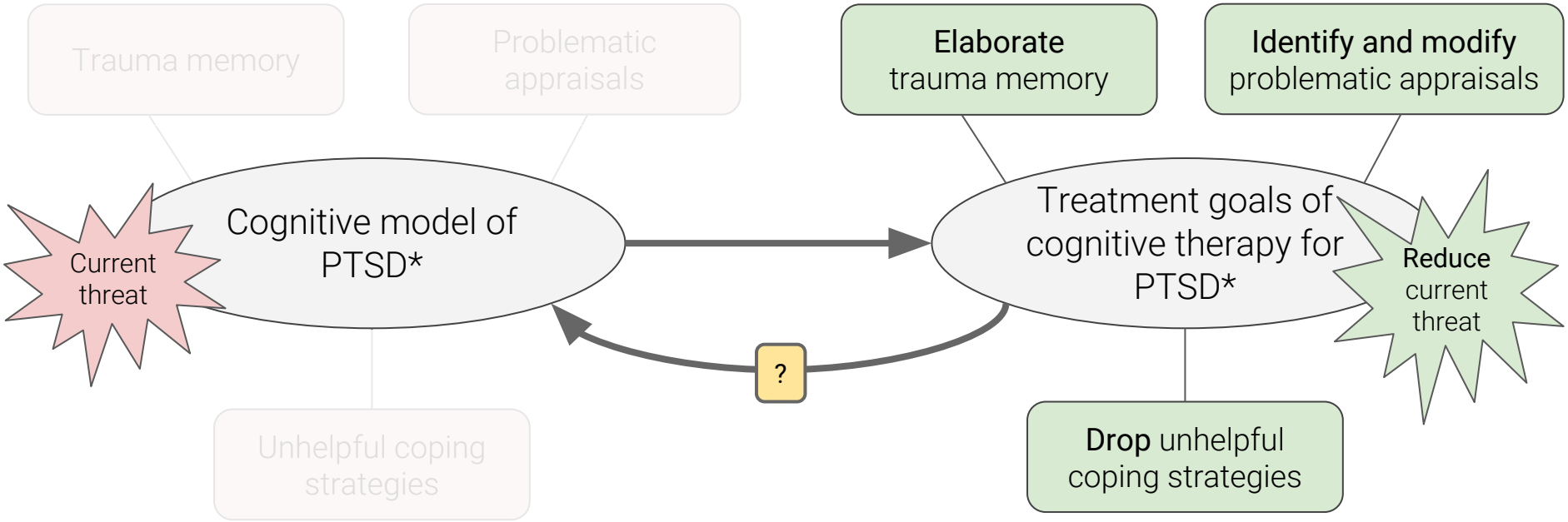
Experimental Psychology

A journey from theory to therapy and back

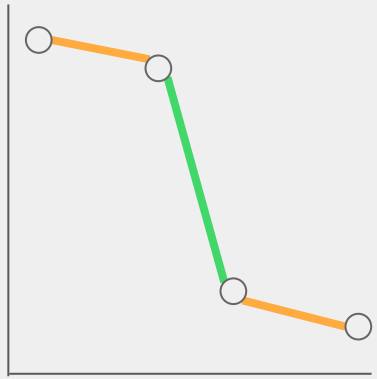


* Based on Ehlers and Clark (2000) and Ehlers et al. (2005).

Three approaches to explore process of change

Sudden gains

Sample 1 | Sample 2



Mediation

Latent change score modeling

Network analysis

Cross-lagged network models

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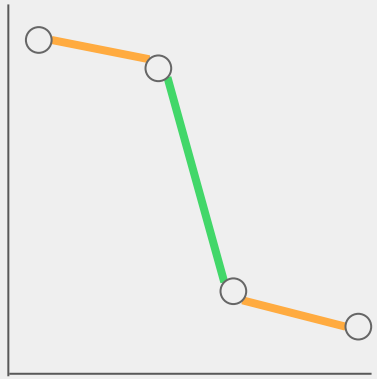

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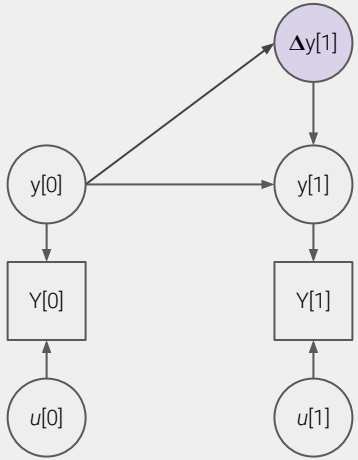

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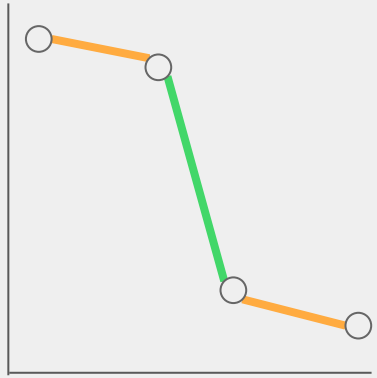

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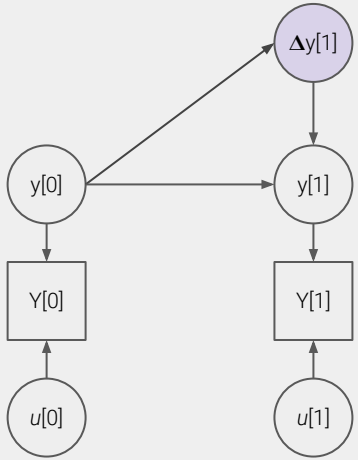

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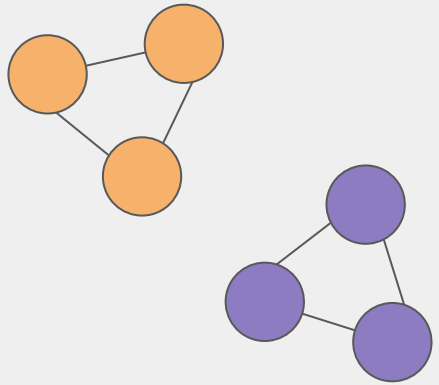
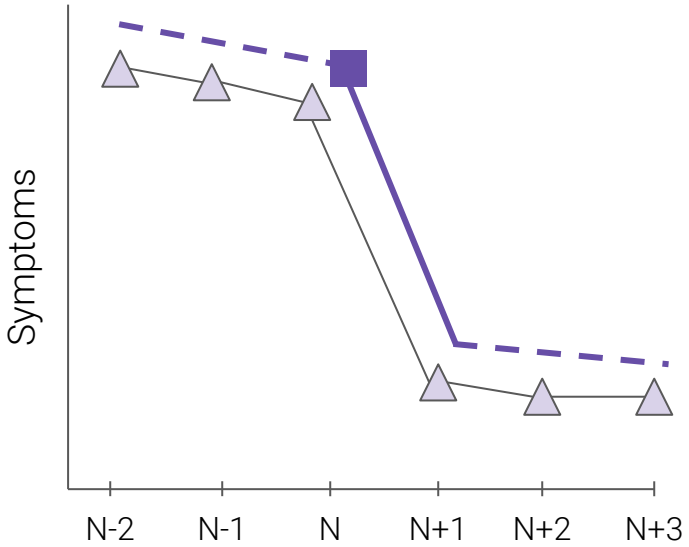


Automating the identification of sudden gains



https://doi.org/10.31234/osf.io/2wa84

PsyArXiv

suddengains: An R package to identify sudden gains in longitudinal data

Milan Wiedemann[1,2], Graham R Thew[1,3], Richard Stott[4], & Anke Ehlers[1,2,4]

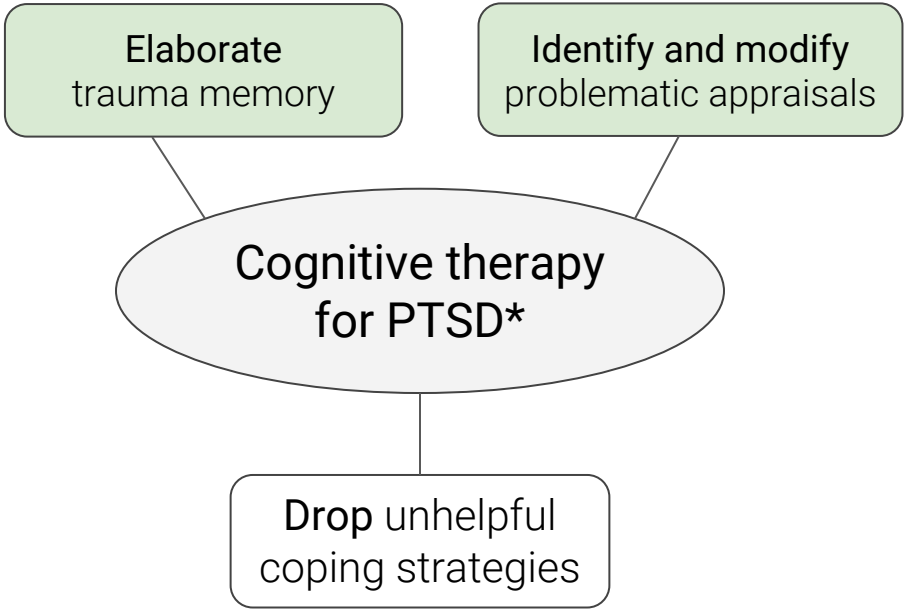
Abstract

Sudden gains are large and stable changes on an outcome variable between consecutive measurements, for example during a psychological intervention with multiple sessions. Researching these occurrences could help understand individual change processes in longitudinal data. Tang and DeRubeis (1999) suggested three criteria to define sudden gains in psychological interventions. However, identifying sudden gains based on these criteria can be time consuming and prone to errors if not fully automated. Further, methodological decisions such as how missing data, or multiple gains, are handled vary across studies and are reported with different levels of detail. These problems limit the comparability of individual studies and make it hard to understand or replicate the exact methods used. The R package *suddengains* provides a set of tools to facilitate sudden gains studies by automating their identification, adjusting for missing data, and providing descriptive statistics as well as exportable data files for further analysis.

Keywords: sudden gains, sudden losses, R, mechanisms of change, processes of change, psychological therapy, longitudinal analysis, single case designs

* Definition based on Tang & DeRubeis (1999). Identification using the R package *suddengains*.

Cognitive processes associated with sudden gains

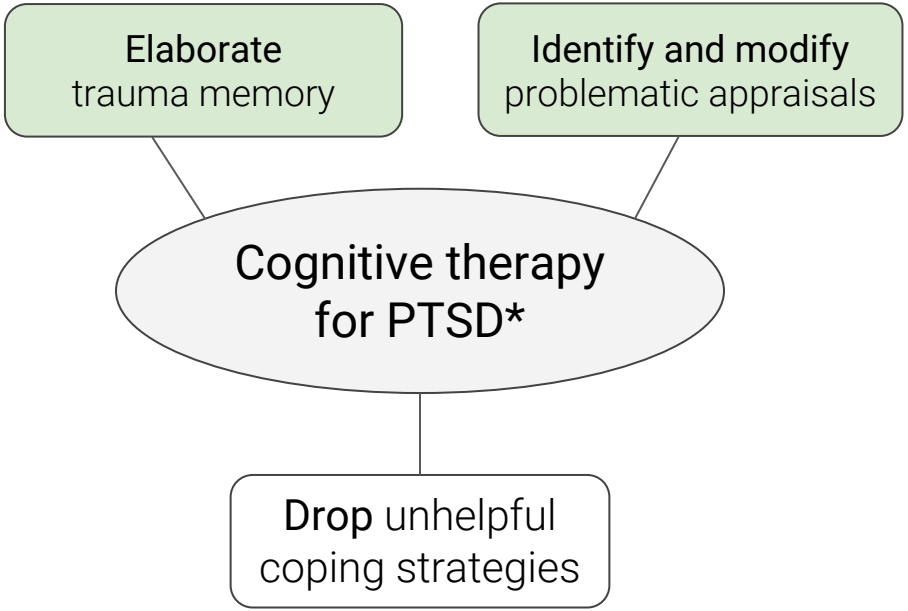


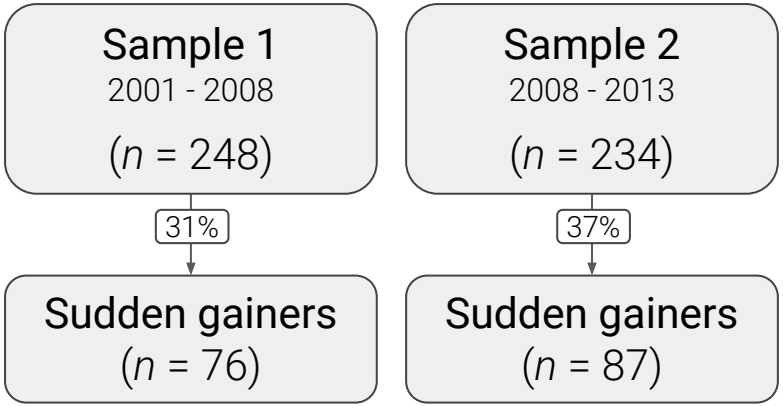
Sample 1
2001 - 2008
(*n* = 248)

Sample 2
2008 - 2013
(*n* = 234)

* Based on Ehlers and Clark (2000) and Ehlers et al. (2005). Description of Sample 1 in Ehlers et al. (2013).

Cognitive processes associated with sudden gains





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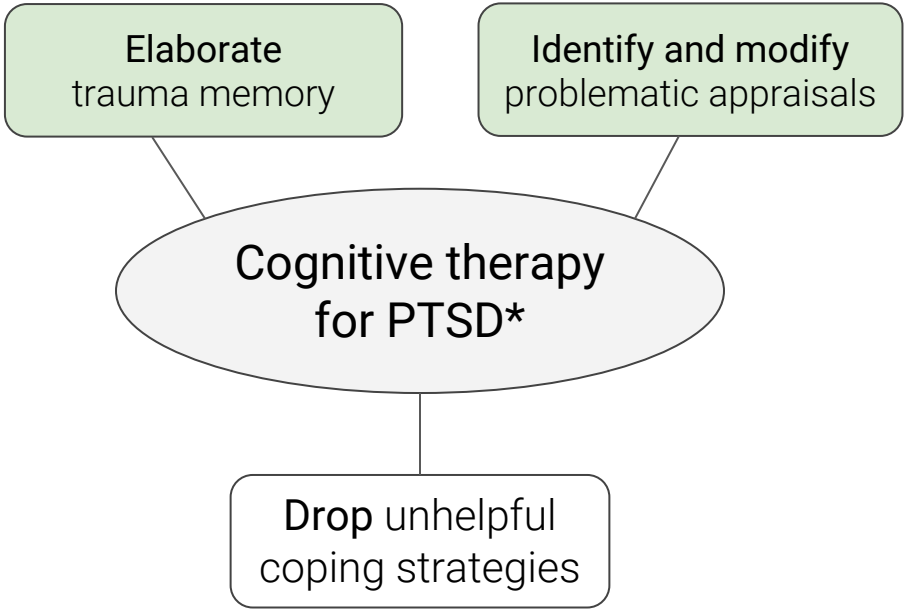

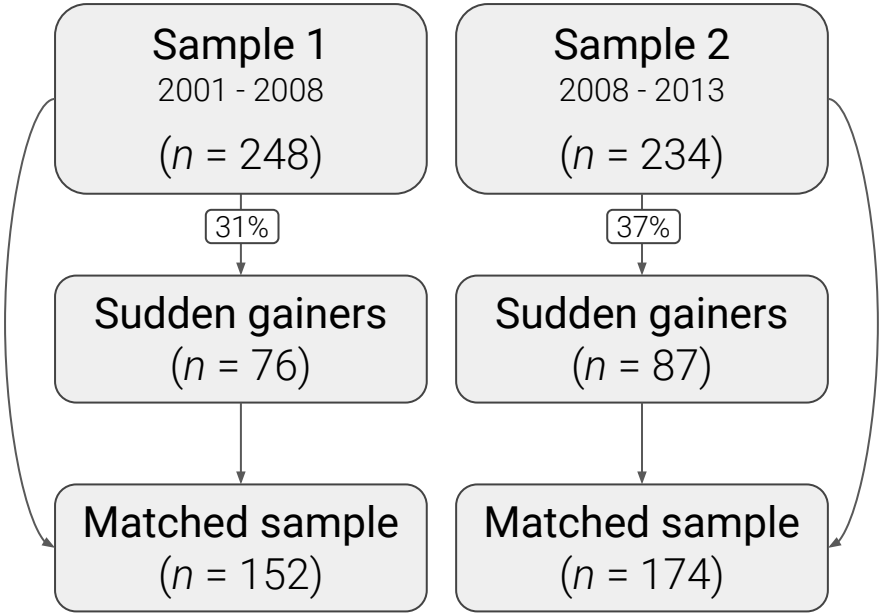

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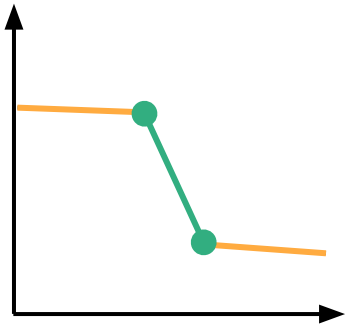
Research Questions

How do cognitive processes[*1] and comorbid 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**?

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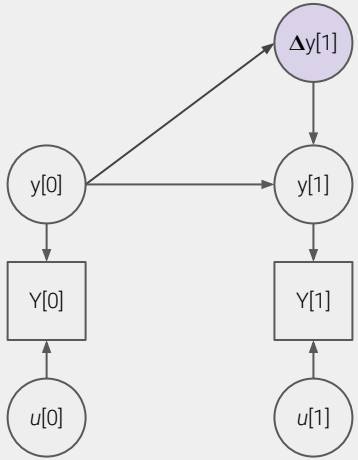

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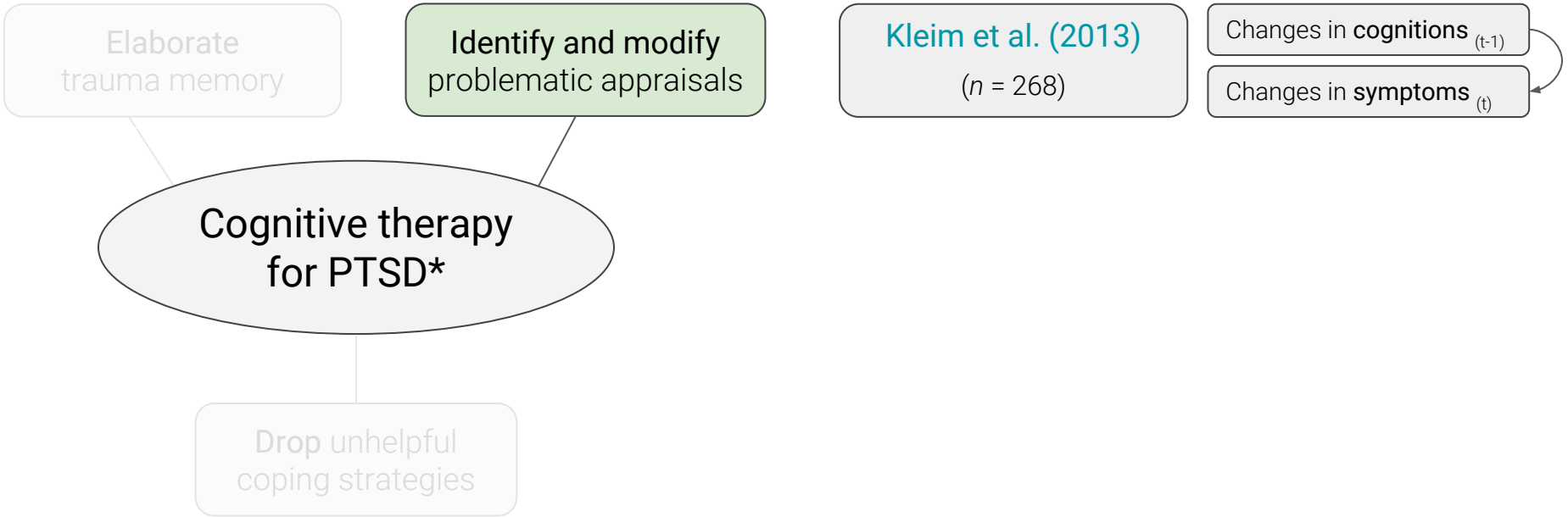
Treatment and samples



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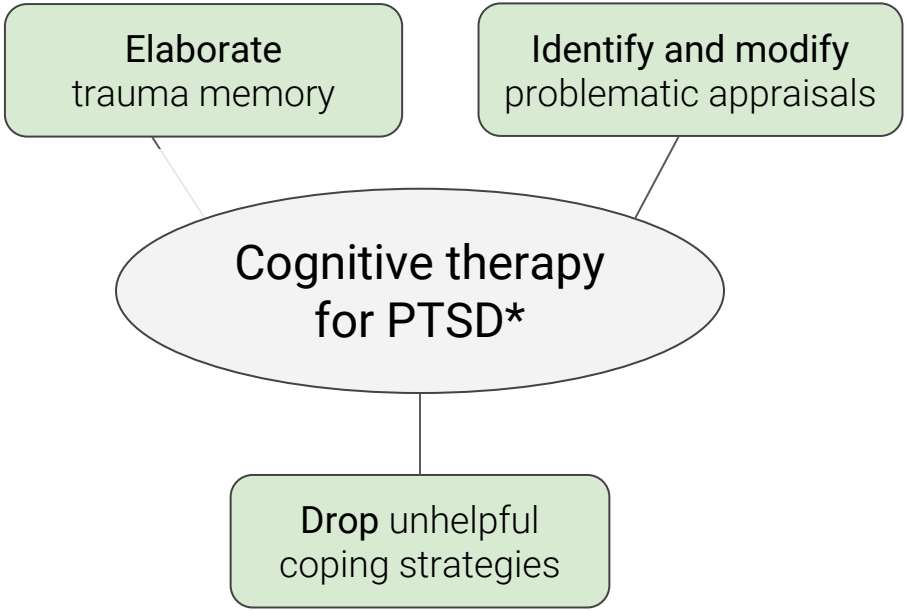


Kleim et al. (2013)

(*n* = 268)

Changes in **cognitions** (t-1)

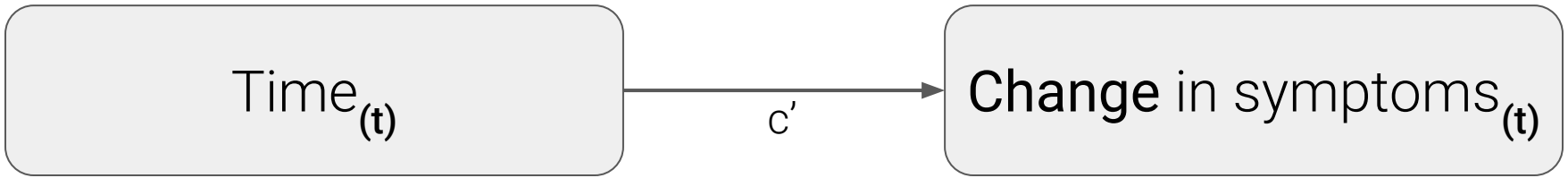
Changes in **symptoms** (t)

Routine care (f2f)

(*n* = 247)

* Based on Ehlers and Clark (2000) and Ehlers et al. (2005).

Research question: Mediation of clinical improvement



* Drawn from Ehlers and Clark's (2000) cognitive model of PTSD.

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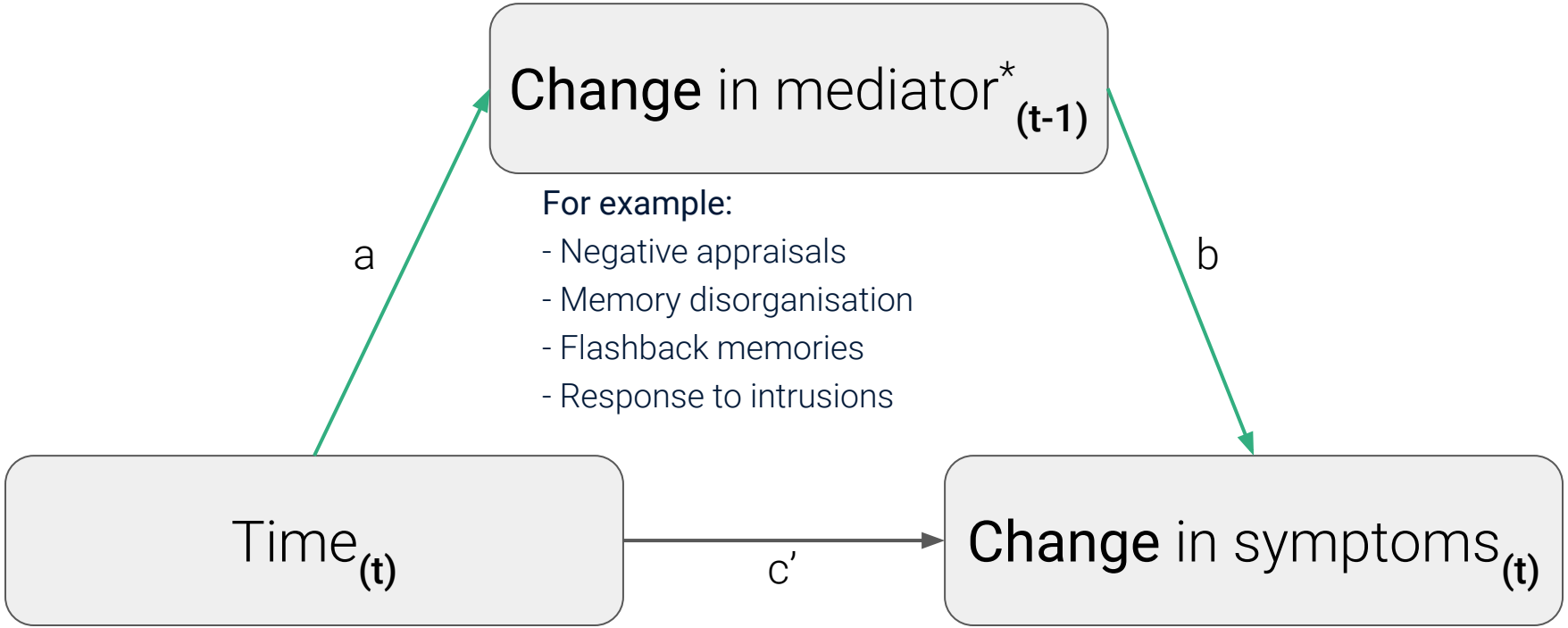

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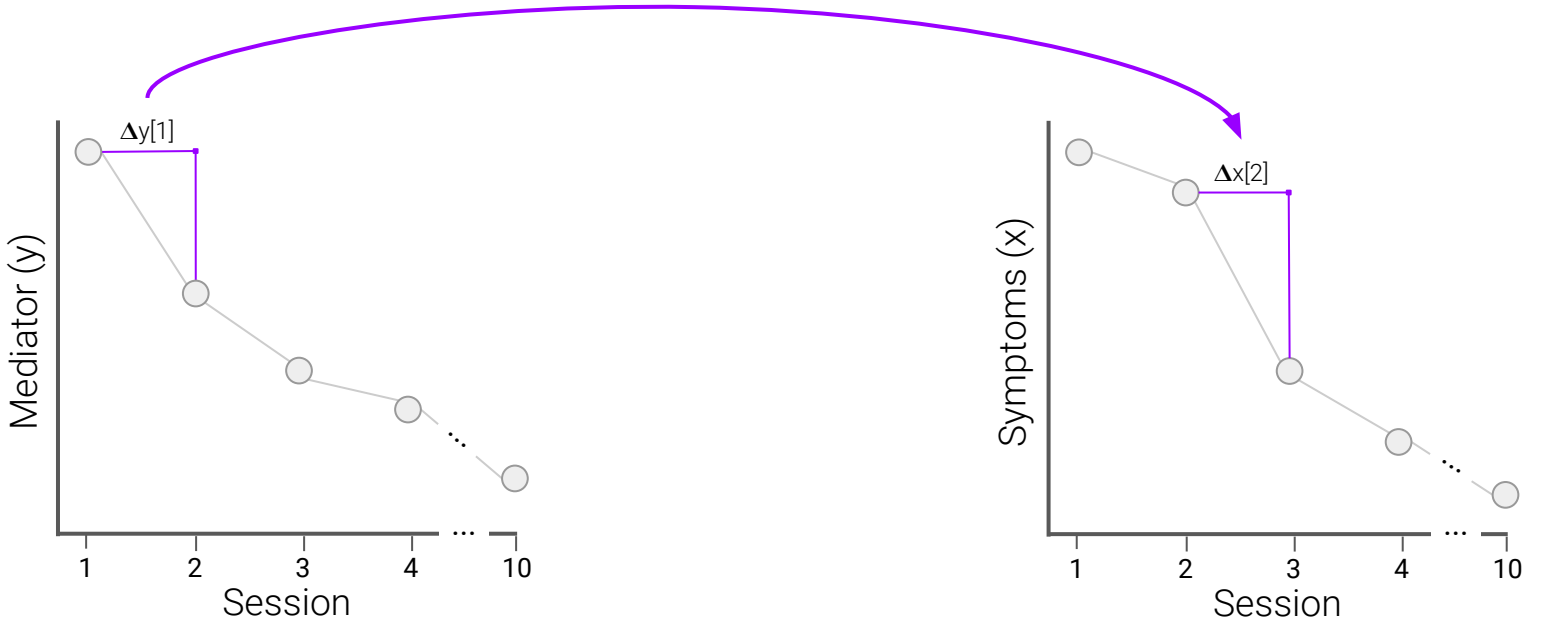
Bivariate latent change score modeling

Negative appraisals

PTSD symptoms



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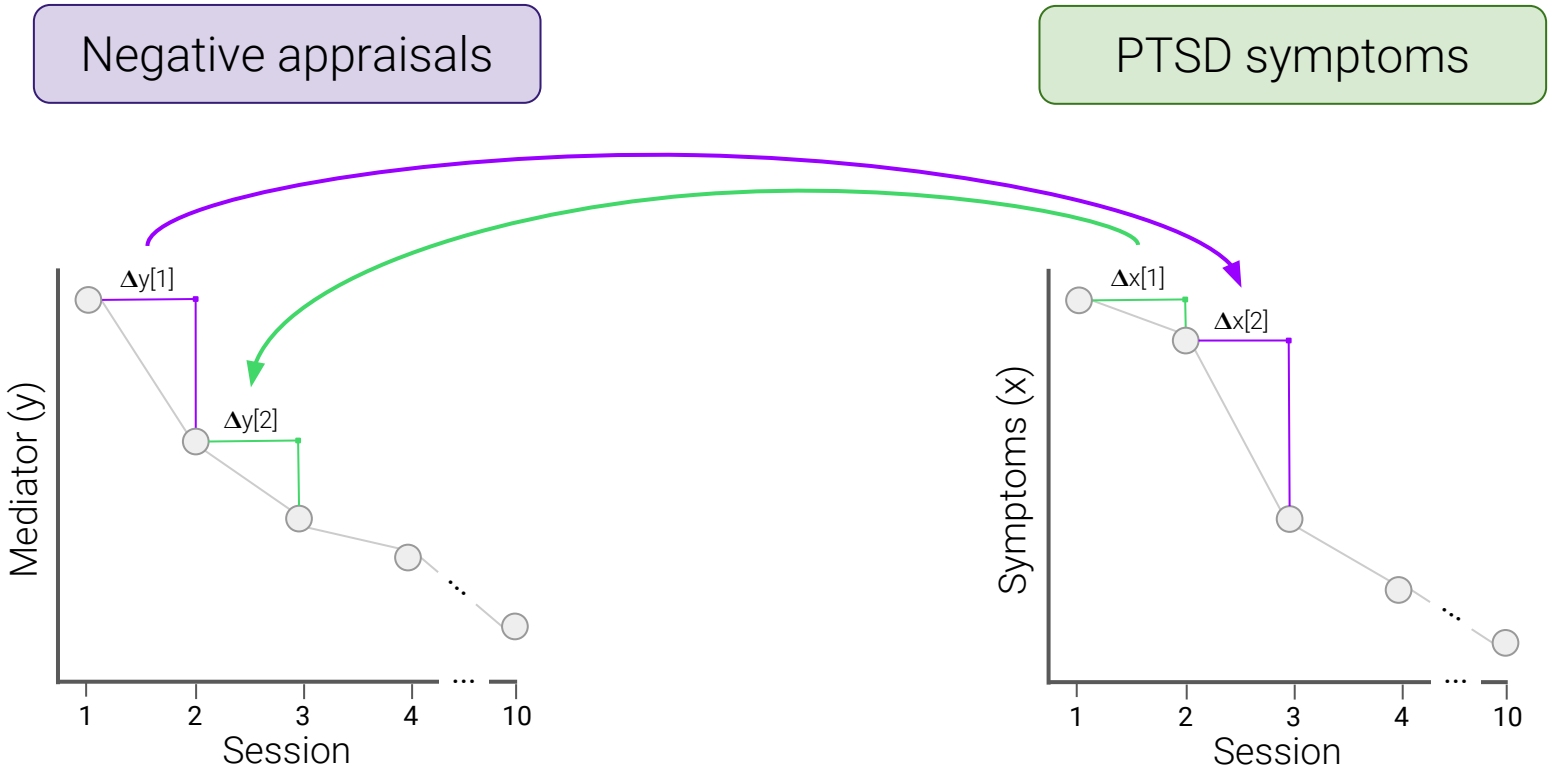

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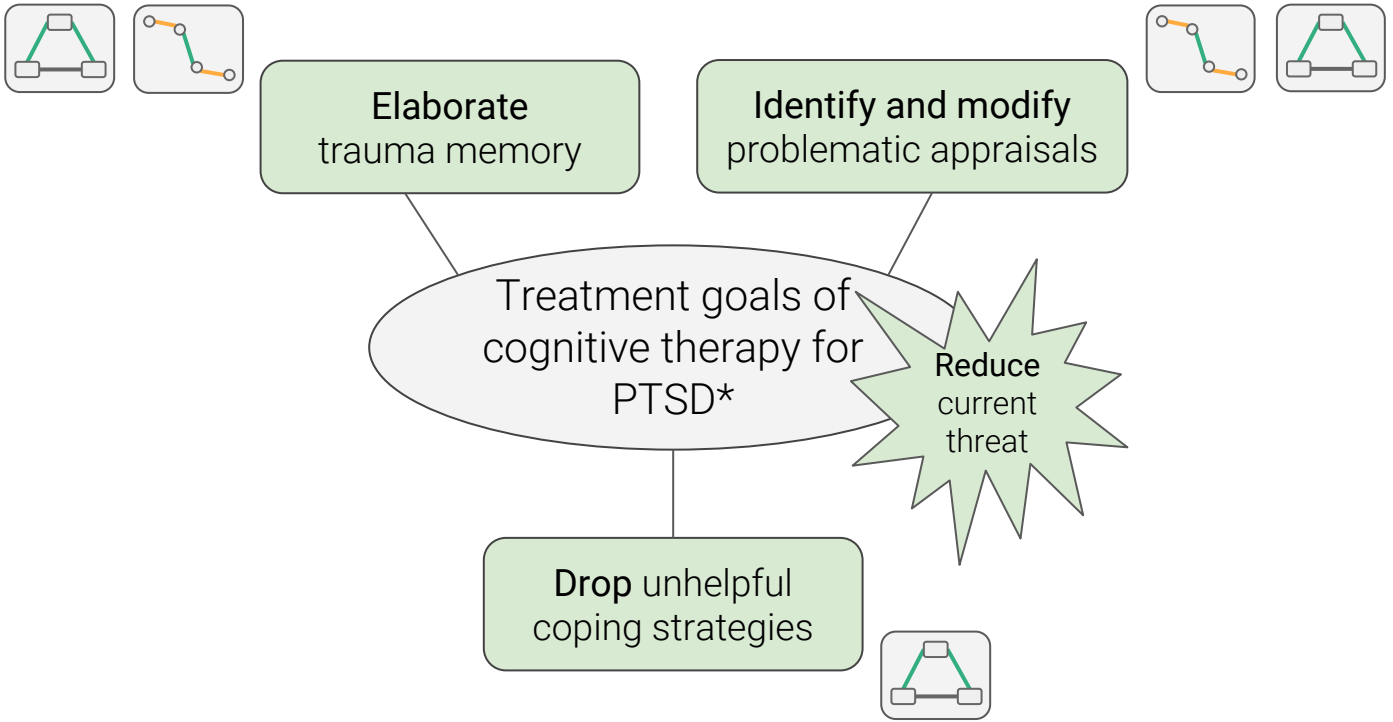
Summary of my journey so far



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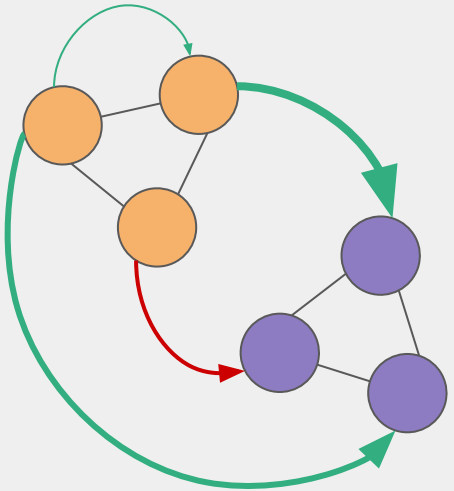

Acknowledgements

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THE AUSTIN AND HOPE PILKINGTON TRUST

wellcome

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THANK YOU

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Experimental Psychology