

MEMORY-EXPERIENCE GAP IN EARLY ADOLESCENTS' HAPPINESS REPORTS

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Introduction

□ **Memory-experience gap:**


- Global retrospective estimates of how happy one has felt in the past tend to be more positive than averaged happiness as assessed via multi-moment episodic measures
- Cognitive biases, among which fading affect bias (Walker, et al, 2003):

Affective intensity fades with time and intense negative emotional experiences fade much faster than intense emotional positive experiences

- Whereas adult happiness has been studied extensively, the research on happiness among children and adolescents has started receiving more attention only recently

- **The World Database of Happiness:**
 - Over **6700 publications on happiness** to which some 400 titles are added each year (Veenhoven, 2011)

 - Among those publications, **154 are on happiness of children and adolescents** (e.g., Gilman & Huebner, 2003; Huebner, Drane & Valois, 2000; Huebner, Valois, Paxton & Drane, 2006; Lee, 2003).

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- Assessments of happiness among children and adolescents mostly relied on global retrospective cognitive estimates, whilst multi-moment assessments of affect have been used in only a few studies (e.g., Larson, et al, 2002; Lee, 2003; Silk, et al, 2003)
 - More understanding on the validity of children's and early adolescents' happiness reports needed

Overall happiness

- **Overall happiness** is the degree to which an individual judges the overall quality of his/her own life-as-a-whole favorably.
 - In other words:
 - **how much one likes the life one leads.**

Happiness as an indicator of well-being

(Krueger et al., 2008; Kahneman & Deaton, 2010)

-two subappraisals:

Cognitive-
CONTENTMENT

The degree to which one perceives that his or her **wants in life** are fulfilled

Affective-
HEDONIC TONE OF
AFFECT

The degree to which positive **affective** experiences outweighs negative ones-CORE AFFECT PLEASANTNESS

Assessing happiness: Contentment

- Typically assessed using global questions such as:

“On the whole, my life is close to how I would like it to be. Please rate the degree to which you agree with this sentence ranging from strongly disagree (1) strongly agree (5)”

- These retrospective types of assessments **related to various biases** (Krueger & Schkade, 2008; Schwartz, Kahneman & Xu, 2009).
 - ▣ Because they involve complex cognitive processes- retrospection, intraindividual and interindividual comparison

Assessing happiness: Hedonic level of affect

- Hedonic level of affect can be measured in two ways

Remembered happiness

Global –overall assessments

Episodic multi-moment assessments

Experienced happiness


"On the whole, how do you FEEL most of the time? Please choose your answer on a scale from bad (1) to good (5)"


- TRAIT-LEVEL hedonic level of affect
- requires retrospection**

- Experience Sampling Method (ESM)*
- Diary methodology, e.g. The Day Reconstruction Method (DRM)*
- **do not require retrospection,**
- less susceptible to various biases

Assessing happiness among early adolescents

- This distinction between remembered and experienced hedonic level of affect is **particularly relevant for children and early adolescents:**
 - Children and early adolescents- may have not yet developed clear cognitive standards of the good life (Dahl, 2004; Yurgelun-Todd, 2007)?
 - When happiness reports refer to a **specific recent episode**, people can draw on **episodic memory**, retrieving specific moments and details of the recent past
 - Such reports can often recover the actual experience with some accuracy, as indicated by convergence with concurrent reports (e.g., Kahneman et al., 2004; Robinson & Clore , 2002; Stone et al, 2006).

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- Although global measures have shown to yield useful information, they have also been associated with several specific limitations
 - Existing life satisfaction scales for adolescents meet the standards for research only when less rigid psychometric standards are applied (Gilman & Huebner, 2000)

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- Issues of affect-related memory retrieval (positive bias) (Robinson & Clore, 2002; Walker et al, 2003; Schwarz)
 - Assessment validity- research on adolescent population relatively young
 - Adolescents' global life satisfaction vulnerable for social desirability bias and impression management, because of greater conformity to peer group pressure (Gilman & Huebner, 2000)

The main aim of the study

Toward a more accurate measurement of happiness among adolescents

- To examine the memory-experience gap in happiness reports among early adolescents using the day reconstruction methodology (DRM):
 - **Are global estimates of happiness too rosy?**
 - **What drives the memory-experience gap?** The role of duration and the hedonic level of affect of daily activities in explaining the variance of the memory-experience gap on a within-person level

Hypoteses

H1.

Global , remebered
yesterdays'
happiness ratings

H2.

Episodic hedonic
level of affect

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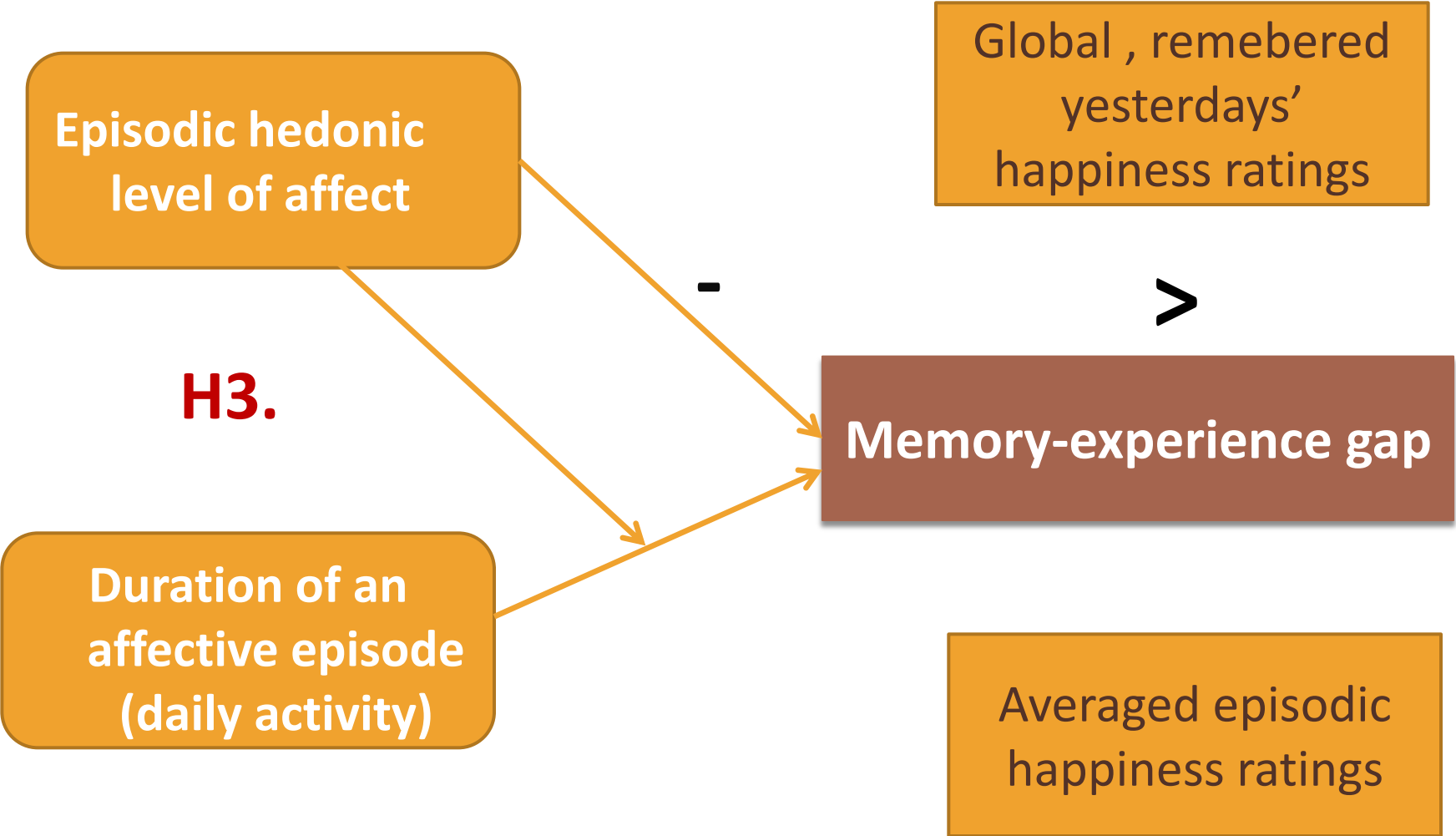
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Memory-experience gap

H3.

Duration of an
affective episode
(daily activity)

Averaged episodic
happiness ratings



Method

Participants

- **N=332** Dutch secondary school pupils
- **Age:** 12-15 years old (M=13,45; SD=0,80)
- **Gender:** 48,5% boys and 51,5% girls
- **Ethnicity:** diverse, as it is the case in Dutch society
- **Living arrangements:** 76,8% with both parents, 22% with one parent, and 1,2% other
- **Schools-**VMBO schools (65.1%), HAVO and VWO schools (25.4%), Gymnasium (4.7%), and other schools (5.2%)

Procedure












- Project: “**Lessen in Geluk**” (*Lessons in happiness*), initiated by Broerfijn et al (2008)

- ***Yesterday’s Diary*** -an internet application’ by Veenhoven (2008), based on the ‘Day Reconstruction Method’ (Kahneman et al., 2004)
 - systematic reconstruction of the activities and experiences of the preceding day












- **Background questionnaire**-relevant socidemographic information (gender, age, living arrangements, ethnicity, type of school)

Global assessment of hedonic level of affect.

How happy did you feel yesterday?

										
0	1	2	3	4	5	6	7	8	9	10

How happy did you feel during past month?

										
0	1	2	3	4	5	6	7	8	9	10

Yesterdays' Diary

Gelukdagboek van gisteren

We willen je vragen de dag van gisteren te beschrijven; wat deed je? Zodra je een activiteit selecteert kun je, indien gewenst, één of meerdere subactiviteiten aanklikken. [Klik hier voor een voorbeeld.](#)

Toelichting op activiteiten

	Begintijd	Eindtijd	Activiteit	Subactiviteiten
1.	7:45		Opstaan	
2.	7:45	8:15	Eten	Thuis (alleen) Thuis (samen) Buitenshuis (alleen) Buitenshuis (samen)
3.	8:15	8:30	Verzorging van:	Jezelf Iemand anders
4.	8:30	9:00	Onderweg	Lopen Fiets Brommer Auto Openbaar vervoer Anders
5.	9:00	9:45	School	lesuur 1 lesuur 2 lesuur 3 lesuur 4 lesuur 5 lesuur 6 lesuur 7 lesuur 8 lesuur 9 mentoruur tussenuur eerste pauze tweede pauze
6.	9:45	10:15	School	lesuur 1 lesuur 2 lesuur 3 lesuur 4 lesuur 5 lesuur 6 lesuur 7 lesuur 8 lesuur 9 mentoruur tussenuur eerste pauze tweede pauze

Voeg een activiteit toe

Verwijder laatste activiteit

48.	22:30		Naar bed	
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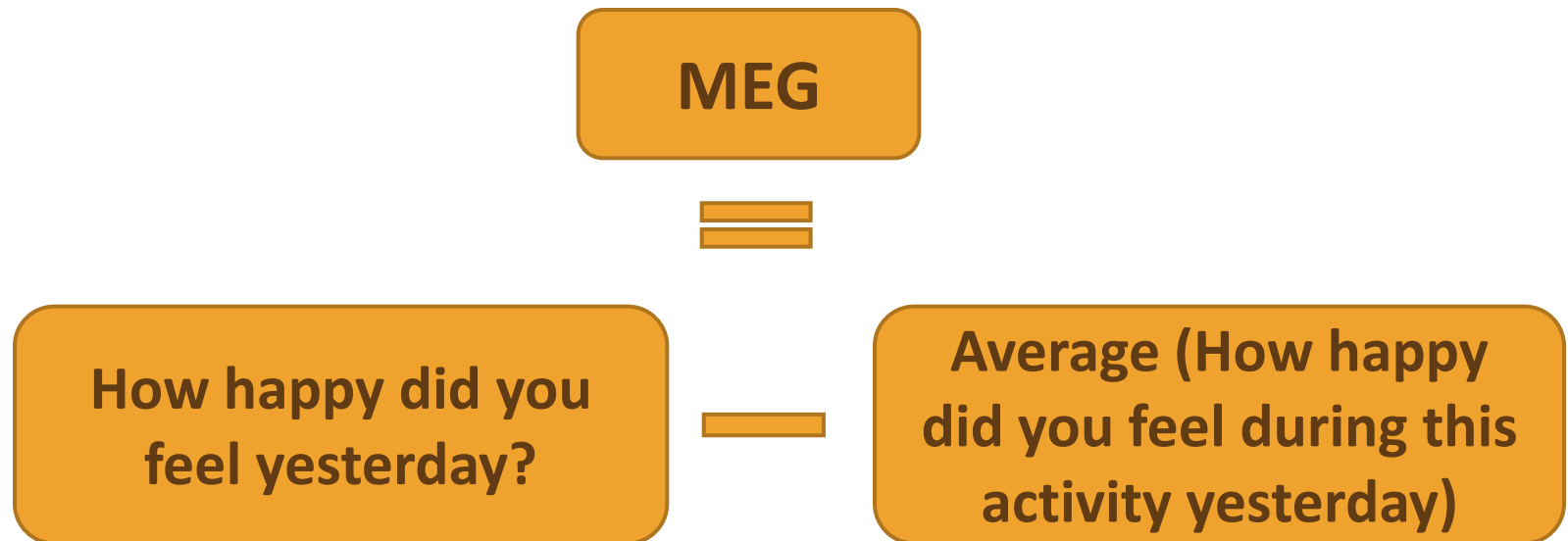
Volgende

Results

- **Total number of activities and the hedonic level of affect estimates reported=5836**
 - Average per pupil per day: $M=13.51$ ($SD=6.35$)
- **Average duration of activities:**
 - $M=54.78$ minutes ($SD=75.28$)
- The reported **hours being active per day** ranged from 1 to 24, with 13.14 hours on average ($SD = 4.08$).

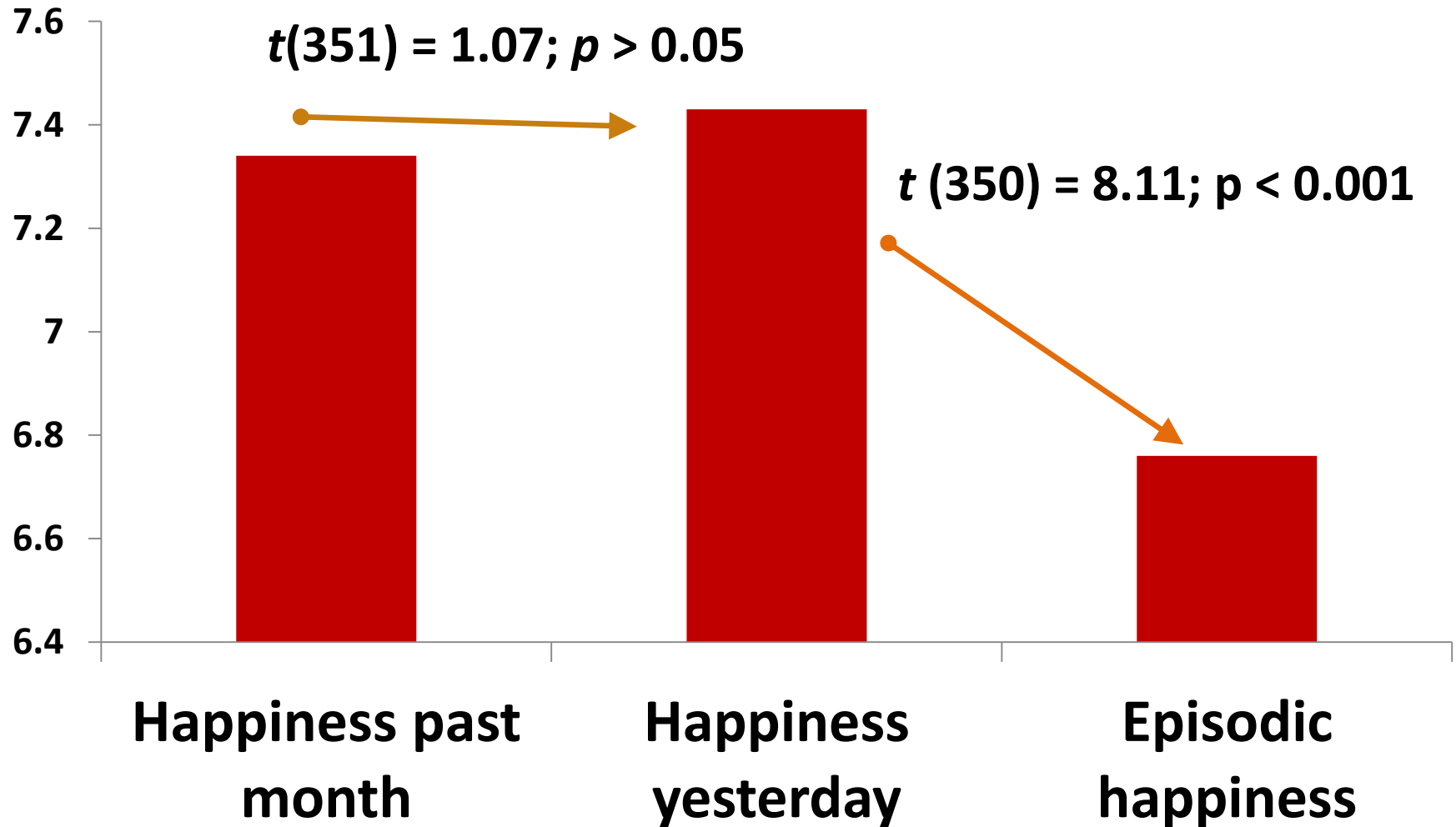
Hypothesis 1.

- We conceptualized memory-experience gap as a difference score on a between-person level

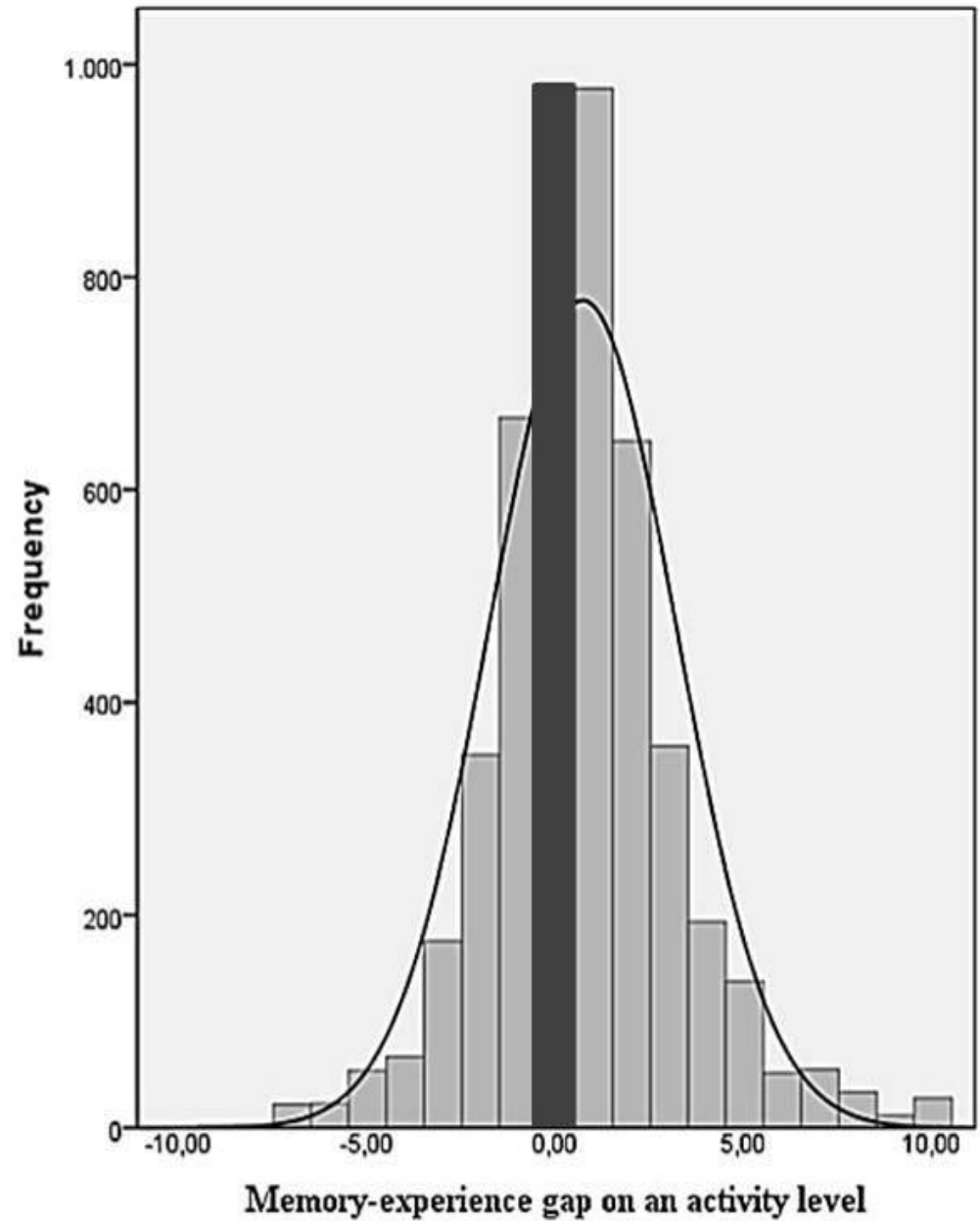


- One-sample t-test

Happiness indicators comparison



Memory experience gap distribution



Hypothesis 2 & 3.

- In order to capture more fine grained processes on a within person-level, we also looked at **the memory-experience gap on an activity-level:**
 - The difference between hedonic level of affect related to each of the activities and the global yesterdays' hedonic level of affect on a WITHIN-PERSON LEVEL
- **2-level hierarchical structure** with activities nested within pupils-MLM

Level 2-Pupil

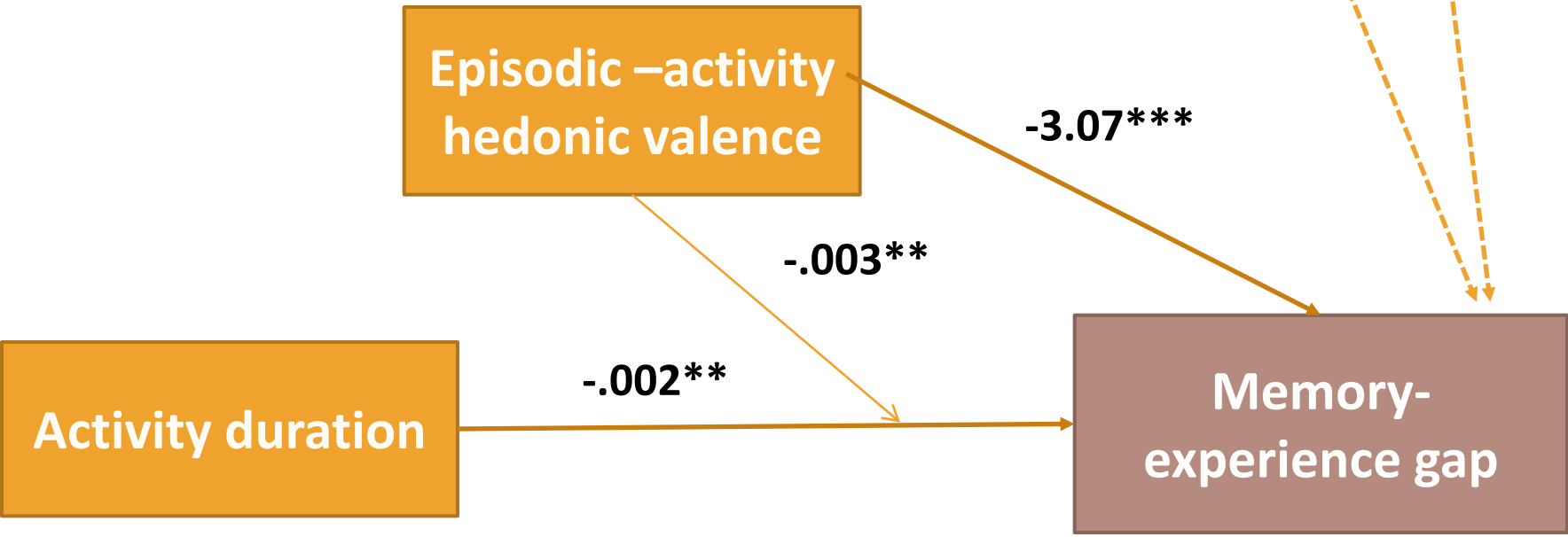
33.7% of MEG variance

age, gender, happiness during past month, number of activities reported, and total time active during the day

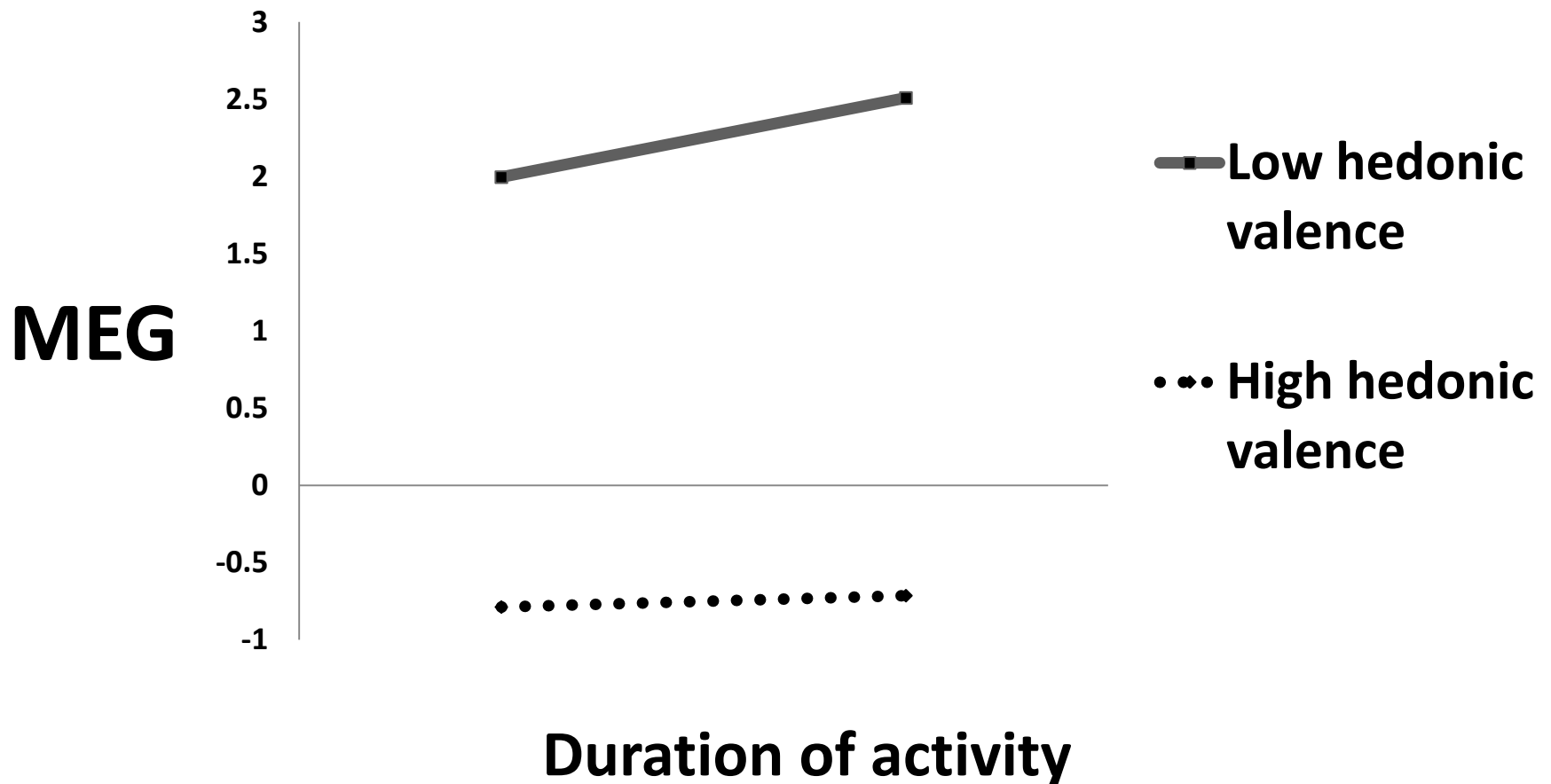
Level 1-Activity

66.3% of MEG variance

Control variable: measurement occasion




Interaction effect of hedonic valence of the activity on the relationship between activity duration and MEG



CONCLUSIONS AND IMPLICATIONS FOR FURTHER RESEARCH

- **There is a memory-experience gap in happiness reports of early adolescents**
 - ▣ Pupils tend to overestimate their happiness level when asked with a global question, even when the reports refer to how happy one felt
 - ▣ The size of the gap can, in part, be explained with the hedonic level of affect, with pleasant affect tending to be overestimated and negative to be underestimated.

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- Global retrospective estimates may not be optimal choice when the research goal is to get more detailed insight into how happy adolescents FEEL, rather, episodic multi-moment assessment should be used
 - If the research uses the global retrospective happiness self-estimates, it is advisable to subtract about 5% of the scale range.

Thank you!!!

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