Relationship between mattering and well-being in daily lives: The ecological momentary assessment approach

LEUNG, Rachel Hoi Laam & Prof. MAK, Winnie Wing Sze
Department of Psychology, The Chinese University of Hong Kong

Introduction

Mattering:
- Defined as a core motivation to ***feel valued*** (FV) by (i.e., individuals feel that they count) and ***add value*** (AV) to (i.e., making a meaningful contribution /difference) self, others, and the world

State well-being:
- **Hedonia:** emotion-oriented; life satisfaction & happiness
- **Eudaimonia:** meaning-oriented; purpose/ meaning in life

Relationship between mattering & well-being:
- The sense of mattering is a **significant precursor** of well-being
- **When feeling mattered, ripple effect occurs:**
  - ➢ Feel that their existence matters and makes an impact on themselves or others
  - ➢ ↑ +ve emotions, purpose in life, life satisfaction
  - ➢ ↑ Flourishing

Ecological Momentary Assessment (EMA):
- **Characteristics**: random, time-dependent, situation-specific => minimize recall bias
- Participants receive EMA from time to time to record their momentary experiences and associated psychological states (e.g., emotions)
- An **ecologically valid, reliable tool** to explore the **temporal relationships** between variables

Research Gaps

- Most published works viewed *mattering* as a trait
- A small number of literature shed light on AV
- To date, no studies in the field have ever…
  - Explored whether *mattering* could be viewed at the state level
  - Examined the temporal relationship between *mattering* and well-being in everyday lives
  - Empirically tested FV and AV at the same time
  - Employed a time-sampling paradigm in mattering-related research

Objectives & Hypotheses

This was the **FIRST EMA study** to examine…
- **RQ1**: The relationship between mattering and well-being at the **state level**;
- **RQ2**: Whether a **higher level of mattering** at previous ($t-1$) and concurrent (t) time points is related to **better concurrent well-being** (t).

In this 2-week EMA study, we hypothesized that…
- **H1**: A higher level of mattering is associated with better concurrent hedonic (i.e., ↑ +ve state affect, ↓ -ve state affect & ↑ life satisfaction) and eudaimonic well-being (i.e., ↑ meaning in life);
- **H2**: Level of mattering at the previous time point ($t-1$) has a lagged effect on one's concurrent well-being (t).

Method

Project Flow

Recruitment
- Online through the subject pool, Instagram posts, CUHK mass mail, and snowball sampling
- Completed a sign-up form that obtained participants' contact information and signed informed consent

Briefing session & Baseline Phase (Day 0)
- **80 participants** attended the briefing session and completed the baseline surveys (comprising demographic information + validity check items)

Time-sampling Study (Day 1-14)
- Received prompts **3 times a day randomly** every **morning** (9am – 12pm), **afternoon** (2pm – 5pm), and **evening** (7pm – 10pm) via **WhatsApp across 14 days**
- On each sampling day, participants completed the EMA survey (completion time < 5 min) **within 1 hour upon receiving the signal**
- The EMA asked participants to report their:

(a) Momentary **experiences**	i. **Location** (where are you now?) ii. **Social contexts** (whom are you with now?) iii. **Activity types** (what are you doing now?)
(b) Momentary **mattering** level	i. **Overall level of mattering** at this moment ii. Experience of ***feeling valued*** at this moment iii. Experience of ***adding value*** at this moment
(c) Momentary **well-being** level	i. **Hedonia**: +ve state affect (happy, calm, energetic), -ve state affect (sad, irritated, tired), life satisfaction ii. **Eudaimonia**: meaning in life

Exit Phase (Day 15 onwards)
- **Debriefing**
- Proceeded with remuneration

Data Cleaning

- Discarded drop-outs, late submissions, and duplicated records
- Only included those who (1) passed the validity check on the baseline survey and (2) completed at least 13 out of 42 EMA entries for analysis

Sample Characteristics

The final usable sample consisted of **74 participants**
- 78.38% females
- Mean age: 26.79 (SD = 9.53)
- 66.22% attained/pursuing Bachelor's Degree
- 63.51% students; 27.03% working full-time
- **Overall mean completion rate: 90.05%**

Statistical Analyses

- **EMA: α = .88 (mattering); = .89 (well-being)**
- **Multilevel modeling** was performed:
  - Level-1 (within-person) variables: mattering (i.e., group-mean centering) & time sequence;
  - Level-2 (between-person) variables: mattering & well-being (i.e., grand-mean centering)
- **The "Lmer4"** package in **RStudio** (Ver. 2022.12.0+353) was used to estimate the mixed-effect models

Key Results

Intraclass correlations: Mattering (0.51) | Well-being (0.57)

H1✅: Mattering$_t$ and well-being$_t$ were positively associated at both within- and between-person levels
- The effect of time sequence was non-significant
  - No matter what the time of the day it was, mattering was beneficial for one's momentary well-being

Variables	B Estimate [CI]	*t*	*p*	R^2_{Model}	$R^2_{Fixed\ effect}$
Model 1				.7533	.4965
Mattering (within-person level)	0.28 [0.26, 0.30]	26.07	< .001***		
Mattering (between-person level)	0.63 [0.52, 0.75]	10.83	< .001***		
Time sequence (as a constant)	-0.09 [-0.23, 0.22]	-0.08	.941		

Note: $N = 74$, number of valid observations for analysis = 2799, $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$. The B estimate columns showed the respective unstandardized estimates and its 95% Confidence Intervals.

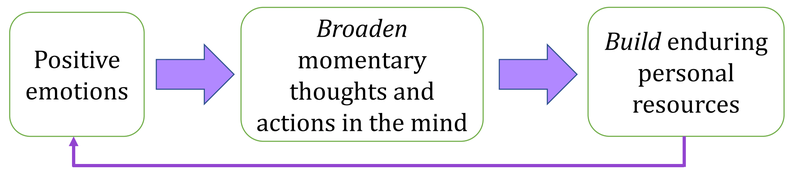
H2✖: There was no significant temporal relationship between mattering$_{t-1}$ and well-being$_t$
- The directionality seems to be reversed…
  - Overall well-being$_{t-1}$ ➔ Mattering$_t$ ✅ (sig.)
  - Hedonic well-being$_{t-1}$ ➔ Mattering$_t$ ✅ (sig.)
  - Eudaimonic well-being$_{t-1}$ ➔ Mattering$_t$ ✅ (sig.)

Variables/ Predictors	B Estimate [CI]	*t*	*p*	R^2_{Model}	$R^2_{Fixed\ Effect}$	*p* of time sequence
Model 2 (Outcome: Overall well-being$_t$)				.6948	.2108	.168
Mattering$_{t-1}$	-0.0023 [-0.0284, 0.0239]	-0.172	.8630			
Overall well-being$_{t-1}$	0.1626 [0.1204, 0.2058]	7.657	<.001***			
Model 3 (Outcome: Mattering$_t$)				.5720	.1442	.0285*
Overall well-being$_{t-1}$	0.0744 [0.0075, 0.1422]	2.192	.0285*			
Mattering$_{t-1}$	0.0831 [0.0409, 0.1260]	3.886	<.001***			
Model 4 (Outcome: Mattering$_t$)				.5720	.1393	.0012**
Hedonic well-being$_{t-1}$	0.0737 [0.0018, 0.1466]	2.016	.0439*			
Mattering$_{t-1}$	0.0870 [0.0458, 0.1290]	4.173	<.001***			
Model 5 (Outcome: Mattering$_t$)				.5718	.1467	.0011**
Eudaimonic well-being$_{t-1}$	0.4741 [0.0252, 0.9305]	2.089	.0368*			
Mattering$_{t-1}$	0.0789 [0.0344, 0.1241]	3.480	<.001***			

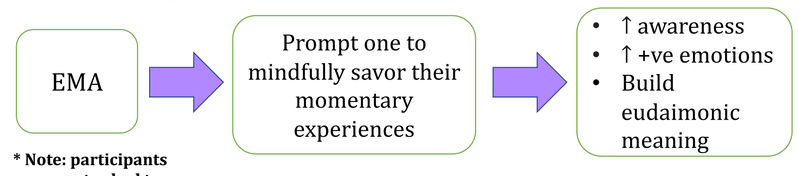
Note: $N = 74$, number of valid (t-1) observations for analysis = 2725, $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$. The B estimate columns showed the respective unstandardized estimates and its 95% Confidence Intervals. The self-regression variables (Mattering$_t$ on Mattering$_{t-1}$, Overall well-being$_t$ on Overall well-being$_{t-1}$) were also included.

Discussion

The present study provided preliminary support that:
- **Mattering could be experienced momentarily**
  ➔ Consistent with our predictions and previous literature
- The **potential predictive effect of hedonic and eudaimonic well-being$_{t-1}$ on mattering$_t$**
  ➔ Contrary to our predictions and previous works
  ➔ **Our speculations** (*await further examination*):
  Hedonia: partly explained by the *broaden-and-build theory* (Fredrickson, 1998, 2001, 2004)



Eudaimonia: partly explained by *the mindfulness-to-meaning theory* (Garland et al., 2015)



*** Note: participants were not asked to practice mindfulness**

Limitations

- **Small variability** in our samples (e.g., highly educated, female)
- **Only explored hedonia and eudaimonia** (we did not address other sub-domains, such as social well-being)
- Did not ask participants to rank **which life domain(s) they felt most mattered** (mattering as a potential mediator in the relationship between well-being and that life domain?)

Implications

- Shed light on the momentary and lagged relationship between mattering and well-being
- Pointed to the promise of continued research on conceptualizing the state-level mattering
- Informed community practice to ↑ one's well-being ➔ ↑ FV & AV ➔ potentially sustain the beneficial effects