

# How well do once-off vs. momentary determinants predict smoking/time to next cigarette?

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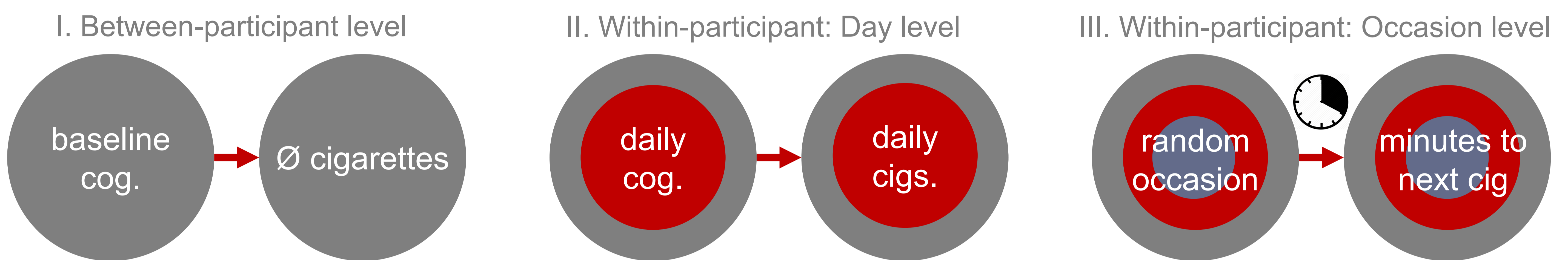
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## Background

Health-related cognitions change over time and between situations. This means that every change can affect behaviour—particularly important for repeated health risk behaviours such as smoking.

Previous research has mainly examined baseline-follow-up effects of cognitions on behaviour. This likely provides biased estimates of the effects of changing cognitions on repeated behaviour.

**This study: Comprehensive and comparative examination of differential effects of trait-level, day-level, and occasion-level predictors of smoking (efficacy, risk, intentions)**



## Method



- Ecological Momentary Assessment (EMA) study
- Predictors: vulnerability, self-efficacy, intention to quit at *baseline, evening report, 4-5 random occasions per day*
- 33 smokers, 16 days
- Age: 40; 60.61% male; 11 CPD

- I. Predict daily cigarettes with baseline risk perception, self-efficacy, and intention to quit
- II. Use same predictors measured on day (within)- level and compare with baseline (between-level) predictors.
- III. Use same predictors measured at repeated random (within-level) occasions during the day to predict time to next cigarette.

## Results/Implications

### I/II: Trait-/day-level predictors → cigarettes per day

		I: Between-level (baseline)	II: Day-level	II: Day- and between-level
Fixed Effects	Intercept	9.63	11.04	10.96
Baseline (Level-2)	Intention	-0.51		-0.45
	Risk perception	-1.09**		-0.49
	Self-Efficacy	-0.81		-0.83
Day-level (Level-1)	Intention		-0.36	-0.36
	Risk perception		-1.16*	-1.16*
	Self-Efficacy		-1.03*	-1.03*

### III: Occasion-level predictors → time to next cigarette

		Coefficient (SE)
Fixed Effects	Intercept	60.11 (8.46)***
	Intention	4.45 (2.74)
	Risk perception	8.95 (2.91)**
	Self-Efficacy	2.89 (2.22)
	Study Day	0.198 (2.75)

Note. \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

- Risk perception is an important predictor of smoking on both between- and within-levels
- Participants smoked ~1 cigarette less each day/9 minutes later for every reported unit increase in risk perception.
- Day-level predictors more important than trait-level.
- Increasing momentary awareness of negative effects of smoking may be successful strategy to reduce smoking → Effective (!) warning labels on tobacco products may be a viable strategy to do so.

