

POS5-47: Smoking context as a mediator of the relationship between SES and smoking

Tina Jahnel¹, Stuart G Ferguson¹, Saul Shiffman², Johannes Thrul³, Benjamin Schüz¹

¹University of Tasmania, Hobart, Australia; ²University of Pittsburgh, PA, USA; ³School of Medicine, University of California San Francisco, CA, USA

Introduction:

- SES gradient in smoking is well established, but we don't know much about the mechanisms responsible for this.
- It has been proposed that SES is associated with the physical contexts people are exposed to – and these contexts have implications on smoking (e.g., smoke-free air laws; Poland et al., 2006)
- Physical and regulatory contexts vary and may affect smoking
- This study takes a **social-ecological** perspective by examining **whether socioeconomic status affects smoking behaviour via everyday exposure to smoking-friendly environments**, in particular places where smoking is allowed



Method:

- **Research question: Does SES** (educational attainment; participant-level) **influence a smoker's momentary context** (day-level), and does this **mediate the relationship between SES and cigarettes smoked per day (CPD; day-level)?**
- Daily smokers (n=194) recorded their smoking and information about situational and contextual factors for 3 weeks using EMA (Shiffman et al., 2014)
- Momentary context operationalised as the proportion of random assessments where smoking was allowed vs where smoking was not allowed, aggregated by day

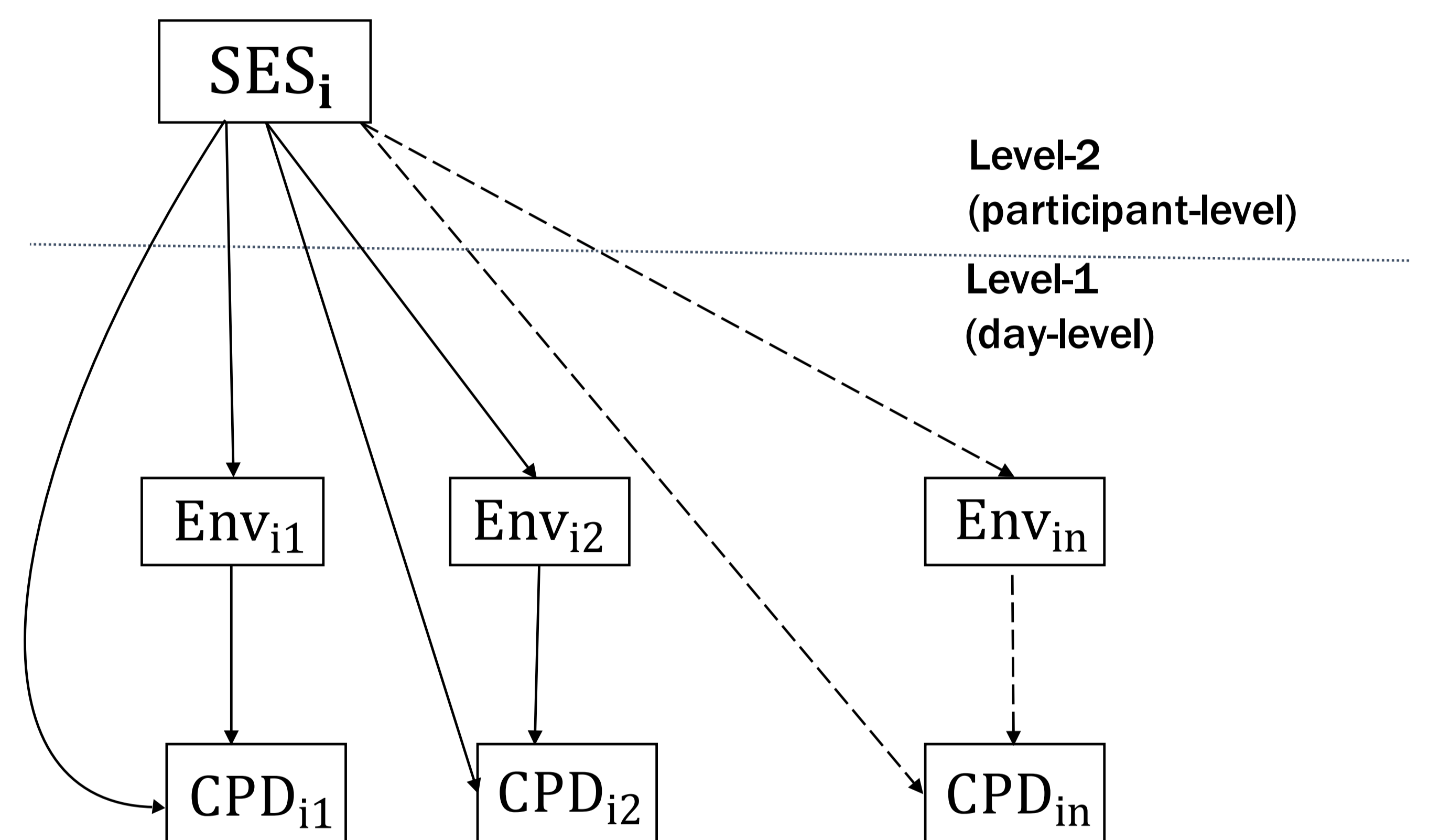


Figure 1: Conceptual diagram of 2-1-1 mediation model for participant i during days 1-n

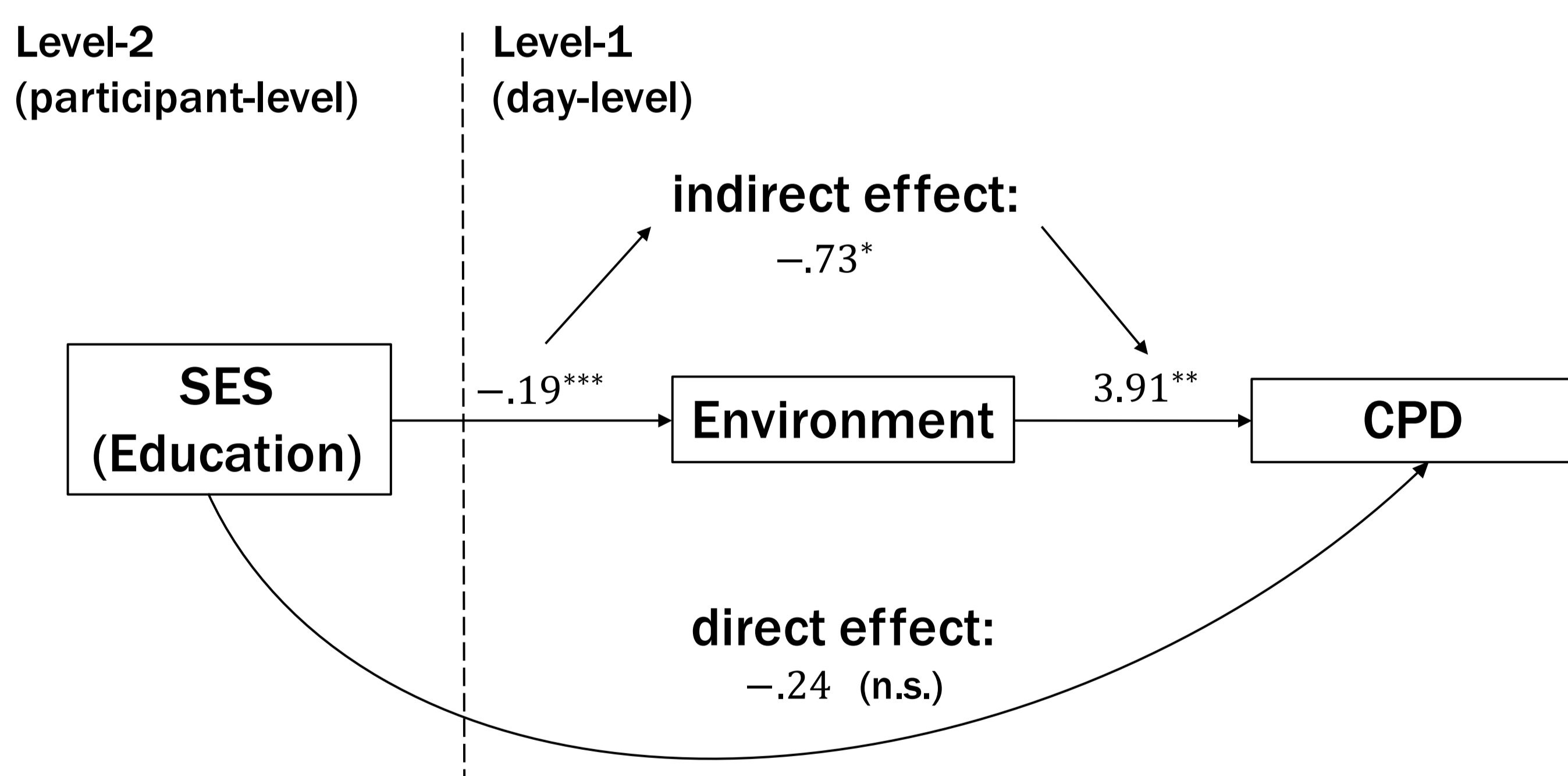


Figure 2: Final 2-1-1 Mediation Model
Note. * $p < .05$, ** $p < .01$, *** $p < .001$

Results:

- **Socioeconomic status is indirectly associated with smoking behaviour, via the environments encountered:**
- Participants with lower education were more likely to report places where smoking was allowed, and this translated into a higher number of CPD

Discussion:

- **SES affects smoking at least partially via differential exposure to smoking-friendly environments**
→ **Smokers from lower SES backgrounds occupy more places where smoking is allowed**
- SES is both a **person- and a location-related determinant of smoking** depending on individual and momentary characteristics
- Research needs to look beyond places of residence or work/school and take into account the differential variability of the everyday environments that individuals encounter
- **Current smoke-free legislation might need to be extended in order to benefit smokers regardless of their SES**
- Limitations: All data are self-reported and correlational

References:

Poland B, Frohlich K, Haines RJ, Mykhalovskiy E, Rock M, Sparks R (2006) Commentary: The social context of smoking: the next frontier in tobacco control? *Tobacco Control*, 15, pp. 59-63. doi: 10.1136/tc.2004.009886
Shiffman S, Dunbar MS, Li X, Scholl SM, Tindle HA, et al. (2014) Smoking Patterns and Stimulus Control in Intermittent and Daily Smokers. *PLoS ONE* 9(3): e89911. doi:10.1371/journal.pone.0089911

